



An Accounting Perspective of Risk Management in Financial Institutions using Descriptive Statistics

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Abstract: This research aimed at establishing the relationship between risk management and its impact on the performance of commercial banks in term of profitability. To address the objective of the study both primary and secondary data were collected. The primary data was collected by use of a structured questionnaire on purposeful sampling of 50 respondents, all senior executives of a financial institution. The secondary data was collected from the annual published financials reports for the target sample; the data covered a period of six (6) years i.e., 2014 to 2019. The data from the two sources was analyzed by use of descriptive statistics and presented in form of frequency tables, charts and percentage. The study reveals that risk management is vital in all commercial banks in that it is one of the major contributors to the income stream. Even after applying lending standards, credit monitoring, and credit evaluation to a significant degree, the majority of respondents agreed that clients still fail loan payments. According to the survey, all banks rely heavily on loans and advances. They have a significant role in the banks' net profit and gross earnings. According to the findings, the Bank should create and implement convenient credit policies and processes to draw in new loan customers and establish a long-lasting borrower connection in order to promote the lending function to the necessary level. The methods most frequently employed in credit analysis also include capacity, cash flow, and conditions. The borrower's character and collateral, or security, were two other important methods that banks used to grant credit to their clients.

Keywords: Risk Management, Commercial Banks, Profitability and Risk.

INTRODUCTION

Commercial banks rely heavily on their loan and advance portfolios and their capacity to control credit risk associated with each individual credit or transaction as well as the credit risk inherent in the overall portfolio. This is true because financial institutions' capacity to manage credit risk and be profitable are essential to their survival and competitiveness. The growing non-performing credit portfolios in commercial banks are a major factor in the banking industry. Over time, a number of financial organisations have encountered challenges stemming from their incapacity to efficiently handle credit risk. From 2007 to 2012, commercial banks were a source of hope for investors who needed large amounts of loans and advances in Sierra Leone. It was commonly known that the country had one of the fastest growing economies in Africa. Some financial institutions were reluctant to take on risk despite this significant economic boost because of their prior experience granting credit and the risk associated with its management (Duramany-Lakkoh, 2021).

Risk is the likelihood of suffering a loss as expressed in a probability statement. It is the difference in the result that can be observed over a given time frame in a particular

circumstance. The Institute of Risk Management defines risk as the sum of an event's likelihood and its effects. Consequences in this regard might be either favorable or negative. Accordingly, credit risk occurs whenever a lender is at risk of suffering a loss due to a borrower, counterparty, or obligator who does not fulfill their contractual obligations (Luy, 2010). According to Crouhy et al. (2006), the borrower defaults when he is willing to complete the obligations, or Colquitt (2007) states that this loss may result from a decline in the counterparty's credit quality, which consequently results in a loss to the value of the loan. Banks frequently experience credit failure, which has an impact on their cash flows, earnings, and liquidity situation. According to Greuning and Bratanovic (2009), it is therefore the primary cause of bank failures and the greatest threat to any bank's performance.

Risk in Banks

Risk is the uncertainty that could cause banks to lose money and go bankrupt. The Basel Accords state that the risks that banks face include credit risk, market risk, and operational risk. The danger of loss resulting from an obligator's failure to fulfill a loan or other credit line commitment is known as credit risk. The Basel committee suggests two methods for determining the capital needs for credit risk: one involves measuring credit risk in a uniform way, while the other permits banks to use the IRB technique with the express consent of the bank's supervisor. The danger of losses in both on- and off-balance sheet positions resulting from changes in market pricing is known as market risk. The foreign exchange risk in the trading and banking books, as well as the interest rate and equity risk associated with financial instruments, are all covered under the capital treatment for market risk. When measuring market risk, the value at risk (VaR) approach is the most recommended. Operational risk is the possibility of suffering a direct or indirect loss as a result of either external occurrences or insufficient or unsuccessful internal processes, personnel, and systems. The Basic Indicator Approach (BIA), Standardized Approach (SA), and Advanced Measurement Approach (AMA) are the three methods used to measure operational risk.

Compared to other business sectors, the banking industry is far more vulnerable to risk, particularly in current dynamic competitive landscape. These days, banks do more than just take deposits and issue loans. Rather, they work in a fast-paced, profit-driven sector that pushes them to develop an increasing number of value-added services to better serve and satisfy their clientele. Nowadays, risks are significantly more complicated because a single behavior can involve several dangers. There are risks within hazards. Risks are overlapping. There are risks within hazards. In recent decades, researchers and academics have attempted to categorize banking risks. Credit, market, and operational risks are the three main categories of risk mentioned in the first pillar of the Basel Accords published by the Basel Committee on Bank Supervision. All other hazards are then covered by the second pillar. Systematic or market risk (interest rate risk), credit risk, counterparty risk, liquidity risk, operational risk, and legal risk are the six general types of risks identified (Anthony and Othieno, 2016). This classification is based on the kinds of services that banks provide.

Risk Management in Banks

Risk management is the most effective and economical way to safeguard an organization's resources, earning potential, and personnel. Risk management, according to Matthew Lenz,

is the process of identifying, analyzing, and assessing risk as well as choosing the best course of action. Because of the nature of the banking industry, risk management is essential. The two main reasons why banks fail are inadequate liquidity and poor asset quality. Financial institutions may choose to enhance their liquid holdings and/or diversify their portfolios in order to lower risk during times of more uncertainty. By keeping credit risk exposure within reasonable bounds and maximizing shareholder value, credit risk management aims to maximize a bank's risk-adjusted rate of return. Both the risk associated with individual credits or transactions and the credit risk inherent in the entire portfolio must be managed by banks. The relationship between credit risk and other hazards, such as the relationship between credit risk, interest risk, liquidity risk, and market risk, should also be taken into account by banks. Any banking organization's long-term profitability depends on the efficient management of credit risk, which is a crucial part of a holistic approach to risk management. Unquestionably, banking risk management occurs on such a large scale and in such an unexpected way in the contemporary business world. On the one hand, more risk diversification, improved forecasting, and more potent responses to possible threats in the global financial market are made possible by the development of several risk instruments. However, if something goes wrong, there is potential for a sequential effect due to the increasing global interactions among financial institutions.

The International Organization for Standardization (ISO) has a standard definition that encompasses the majority of general concerns: "Risk management is a central part of any organization's strategic management." It is the process by which businesses systematically deal with the risks associated with their operations in order to achieve long-term benefits both inside each activity and throughout the portfolio of all activities (Raz and Hillson, 2005).

In the sentences above, the three most important words are bolded. First, the main goal of risk management is to make businesses profitable and sustainable. Second, the core of any company's strategy is risk management. Surprisingly, risk management's importance in an organization's operations was long overlooked. It was once thought of as nothing more than insurance. Only in the 1990s, following massive derivatives disasters in the United States that rocked Barings Bank, Procter & Gamble, Gibson Greetings, the government of Orange County, California, BankAmerica Corp., and many other giants with billions of dollars lost, did it begin to attract the attention of top business executives (Markham, 2002). Third, risk management is a process that is constantly evolving.

Financial Performance

The financial sector's use of financial performance has caused businesses in developing nations to recognise the growing demand for financial analysis from contemporary banks. These initiatives help banks understand the state of their business. In a different way, it gauges how successfully a company can leverage assets (loans, securities, etc.) from its main line of business to produce income. They must make sure to evaluate every facet of their organisation and pinpoint areas that require improvement in order to improve the financial condition. A bank's overall financial situation is determined by a number of factors. To improve their financial performance, banks must cut costs, collect past-due debt, follow up with customers, and use standardized methods to evaluate potential credit customers (5cs, CAMPARI). According to Casu et al. (2006), performance analysis is a crucial tool

utilized by a variety of agents who work for banks either internally (managers, for example) or externally (regulators, for example).

Commercial banks' financial success has a significant impact on their future business operations. Analyzing an institution's financial statements; income statement, statement of financial position, statement of cash flow, statement of changes in equity, and note to the account, is necessary to determine its financial performance. The best sources of financial data have been these records. It goes without saying that a basic approach to securities analysis heavily relies on financial information. Financial ratios are important components of financial statements and may be of importance to the analysis. Before moving on to the debt and liquidity analysis, it is important to understand the profitability of the financial performance (Duramany-Lakkoh et al. 2022).

The income statement is the primary source of financial performance metrics. Ratio analysis is used to analyze and evaluate banks' performance in order to examine historical and present trends and project future bank performance. The primary indicators of financial performance are profitability ratios. Return-on-equity, or ROE, is a common profitability ratio in commercial banking and is arguably the most significant measure of a bank's profitability and potential for expansion. It is the return to shareholders as a percentage. NPM (Net Profit Margin) is the net interest margin and measures the net interest income in relation to the bank's total average or profits asset. ROA (Return-on-Assets) shows how much net income is made per unit of asset. It calculates the bank's spread per asset dollar. A high NPM indicates that the banking industry is stable because the difference between deposit rates and lending rates plus other interest-earning assets is large, and vice versa. A larger net profit margin, however, could be a sign of inefficiencies in the banking industry and imply riskier lending practices linked to significant loan loss provisions. Due to rising competition in the loan and deposit sectors, NPM has been entering a number of banking industries (Casu et al. 2006).

Statement of the Problem

Every banking institution wants to run profitably in order to stay stable and continue to grow and expand. Lending is seen by the majority of commercial banking professionals as the core of the business. In most banks, loans are the most important asset, account for the largest portion of operational income, and expose the bank to the highest level of risk. The stability of the banking industry in Sierra Leone has been endangered by a number of issues, such as non-performing loans and interest rate changes. Bessis (2011) asserts that credit risk management is crucial to bank management since banks are "risk machines," taking hazards, transforming them, and incorporating them into banking services and products. Risks are uncertainties that might lead to losses that demonstrate the bank's failure or negative fluctuations in profitability that demonstrate the financial performance. Commercial banks' non-performing credit portfolios have been increasing recently as a result of their management's incapacity to properly manage risk and credit administration. Due to this issue, commercial banks had substantial bad debt levels, and the monetary authorities designated several additional commercial banks as distressed banks. As a result, it is necessary to look into the topic: how risk management affects banks' performance.

Objectives of the Study

The overarching objective of this study is to examine the impact of risk management on the profitability of commercial banks. But the researcher intends to address the following sub-objective;

- To find out the method of risk management used in by banks
- To identify how credit is administered in banks
- To identify the constraints militating against risk management.

Research Questions

In order to actualize the objectives of this research, the following research questions was administered to guild this study:

- What are the Methods of Risk Management in banks?
- How is Credit administered in banks?
- What are the constraints of Risk Management and Credit Administration?

Motivation of the Paper

Financial institutions will benefit from this report since they will use the study's findings as a foundation for developing bank risk management policies. This study will benefit stakeholders, shareholders, and society as a whole. Information about risk management and how it affects financial performance will be gathered by the banking sector; top management and potential investors will find this information especially valuable. Senior managers and the credit departments of banks will also benefit from this study since it will provide them a better understanding of how banks' financial performance relates to the effectiveness of their risk management and how to lower risk exposure. Academicians will receive pertinent information on risk management and how it affects commercial banks' financial performance. The work will add to the body of knowledge and serve as a foundation for additional research.

LITERATURE REVIEW

Theoretical Review

Risk Management Theory

According to Wenk (2005), the risk management model comprises risk identification, risk assessment, and risk prioritization, followed by coordinated and cost-effective resource application to reduce, monitor, and control the likelihood and/or impact of unfavorable events or to maximize the realization of opportunities. Financial market uncertainty, project failures, legal obligations, credit risk, accidents, natural disasters, intentional attacks by adversaries, and events with unclear or unexpected fundamental causes are all examples of risks. The Project Management Institute, the National Institute of Science and Technology, actuarial societies, and ISO standards are just a few of the risk management

guidelines that have been created. Depending on whether the risk management approach is used in project management, security, engineering, industrial processes, financial portfolios, actuarial evaluations, or public health and safety, there are significant differences in methods, terminology, and objectives (Simkins and Fraser, 2010). Transferring the risk to another party, avoiding the risk, lowering the likelihood or negative impact of the risk, or even accepting some or all of the potential or actual repercussions of a specific risk are common risk management tactics.

All companies, whether big or little, public or private, can benefit greatly from effective risk management (Ranong and Phuenggam, 2009). Superior financial performance, a stronger foundation for strategy formulation, better service delivery, increased competitive advantage, less time spent freighting and fewer unpleasant surprises, a higher chance of change initiatives succeeding, a closer internal focus on doing the right things correctly, more effective use of resources, less waste and fraud, better value for money, improved innovation and better management of contingent and maintenance activities are some of these advantages (Wenk, 2005). Through a thorough comprehension of the risks and their potential consequences, an effective risk management framework facilitates better decision making. In the practice of risk management (RM), mismanaged hazards can have a detrimental effect on stakeholder value. Thus, effective risk management increases the value of shareholders. Developing a strong discipline in risk management enhances the governance process, which in turn increases efficacy (Moore, 1983). Frempong et al. (2019) states that developing a strategy based on clearly defined risk management and then integrating it is the first step in ensuring that a company uses risk management in a cost-effective manner. Financial, operational, governance, and strategic risk management are some of these risk management techniques.

Modern Portfolio Theory

The work in a number of articles published in the late 1950s provided a thorough definition of this theory. In the decades that followed, Sharpe (1975) and others expanded and improved the idea. By carefully selecting the quantities of different assets, modern portfolio theory aims to either minimize risk for a given level of expected return or maximize portfolio expected return for a given amount of portfolio risk (Markowitz, 2008). The pricing of individual assets and the process of creating an efficient portfolio are integrated by the portfolio theory. It illustrates how possessing the right mix of assets can reduce or diversify away some of the risk associated with particular assets (Bodie, 2003).

The core idea of contemporary portfolio theory is that each asset in an investment portfolio shouldn't be chosen on its own merits. Instead, it is crucial to take into account how each asset's price fluctuates in relation to the price fluctuations of every other asset in the portfolio. Risk and projected return are traded off while investing. Higher projected return assets are typically riskier. Modern portfolio theory explains how to choose a portfolio with the highest feasible expected return for a given level of risk. Alternatively, current portfolio theory describes how to choose a portfolio with the least amount of risk for a given expected return (of course, unless negative asset holdings are conceivable, the targeted expected return cannot be greater than the highest-returning accessible security). Thus, diversity is a component of contemporary portfolio theory. Modern portfolio theory discusses

how to determine the optimal diversification strategy under given assumptions and for particular quantitative definitions of risk and return.

The ability to generate combinations with lower risk and potentially better expected returns than can be gained from individual assets is the primary advantage of creating portfolios (Butterworths, 1990). Now think of the risk of personal security as the total of two components. Risk characteristics that are genuinely unique, unsystematic risk, to the particular securities make up one portion. Factors that are fundamentally shared by all other stocks form the other portion. For instance, the chance of an important person leaving the company without warning or the potential to find gold beneath corporate headquarters are special elements that are not present in other businesses (Michaud and Michaud, 2007). Conversely, risk factors pertaining to the possibility of unanticipated and swift expansion in the national, or global economy that impact all businesses' operational expenses are an example of common risk factors. Although portfolio building lessens the impact of specific risks related to individual stocks, exposure to common risk factors cannot be completely eliminated. In other words, well-designed portfolios can diversify specific risk but not systemic market risk (Markowitz, 2008).

In conclusion, risk and return connections for combinations of securities are evaluated by portfolio management theory. Portfolio risk must take into account the correlation between the returns of individual assets, even if the expected return of a portfolio is only the weighted average of the expected returns of its component stocks. A security's price fluctuation is not related to the price variations of other securities held since a portion of it is unique. As a result, the investor can diversify or reduce the risk associated with each security (Michaud et al. 1998). Since loans make up the majority of the bank's assets, the theory can be used to explain why commercial banks need to build a portfolio that spans many enterprises and industries. The objective, time period, industry, and other factors can be used to construct the portfolio. There are some gaps in the theory; Markowitz's original goal was to discuss the significance of investment portfolios for investors to distribute risk when investing, not bank loan portfolio management. How banks may create a loan portfolio that minimizes risk and maximizes profit is one of the challenges that the theory does not answer. It doesn't describe how to find a portfolio that is risk-free. Furthermore, the approach ignores a number of risks that banks encounter when overseeing a loan portfolio. As a result, the idea cannot be applied comprehensively to bank credit risk management.

Value at Risk Theory (VAR)

One of the more recent instruments for risk management is VAR. The Value at Risk (VAR) shows how much a company can profit or lose over a specific time period with a given probability. VAR condenses the inherent financial risk in portfolios into a straightforward figure. VAR includes numerous additional hazards, such as foreign exchange, commodities, and stocks, even though it is used to quantify market risk generally. Kanchu and Kumar, (2013) Credit VAR models fall into two primary categories: 1) Mark-to-Market (MTM) models and 2) Default Mode models (DM). In the former, a binomial technique is used to identify credit risk with default risk. As a result, only default and survival are considered as potential outcomes. The latter, referred to as "credit migrations," encompasses all potential shifts in the borrower's creditworthiness. Credit losses in DM models only happen in the event of a

default. However, MTM models are multinomial, meaning that losses can also result from negative credit migrations.

Contingency Planning Theory

Contingency planning (CP), sometimes referred to as business continuity planning, is an essential component of risk management (Negese et al. 2024). The essential tenet of contingency planning is that residual risks always exist because it is impossible to completely eliminate all hazards in actuality. Incidents will still happen even if the organization makes every effort to prevent, avoid, or lessen them. Even the greatest information security procedures intended to guarantee the confidentiality, integrity, and availability of information assets may be circumvented or overwhelmed by specific circumstances, combinations of unfavorable occurrences, or unforeseen threats and vulnerabilities (Negese et al. 2024). According to Riley (2013), contingency planning is a forward planning process in which managerial and technical actions are defined, scenarios and objectives are agreed upon, and potential response systems are put in place in order to prevent or better respond to an emergency or critical situation.

The purpose of a contingency plan is to facilitate the networking and coordination of persons, agencies, and organizations in order to facilitate a prompt and efficient response. In order to expedite catastrophe response and ultimately save lives, contingency planning guarantees the availability of standby resources and offers a structure for quick decision-making. For the sake of this study, CP is defined as all of the key event and disaster-related activities, controls, procedures, plans, etc. It is the process of getting ready for significant events and catastrophes, creating adaptable plans, and gathering appropriate resources that will be used in the event, regardless of what actually happens. The word "contingency" itself suggests that the resources and actions needed in the wake of significant incidents or disasters are contingent (depend on the precise nature of the incidents and disasters that actually occur). In this way, CP entails planning for the unknown and being ready for the unexpected. Reducing the negative effects or repercussions of catastrophes and disasters is the fundamental goal of Contingency Planning.

Overview of the 1988 Accord

A significant advancement in bank capital regulation was the 1988 capital accord. It made a clear connection between a bank's level of risk and its capital requirements. Additionally, minimum capital standards that were equivalent across international borders were set. It mandated that banks retain at least 80% of their weighted assets as capital. Four risk weights were introduced: 10 percent for government claims, 20 percent for bank claims, and 50 percent for residential mortgage claims. As a result, the agreement gave market players a standard by which to evaluate the banks (ElBannan, 2017)..

However, the 1988 Accord has many shortcomings. For example, it was a crude measure of economic risk exposure that was not sufficiently segmented to distinguish between actual economic risk and that measured by the Accord. Only credit risk was covered by the agreement. The new framework, on the other hand, offers a range of methods for analyzing both credit and operational risks in establishing the capital requirement, whereas the 1988 Accord only offered essentiality as a means of monitoring, managing, and reducing

risk. Additionally, it added the aspect of measure choosing flexibility, subject to supervisory observation. As a result, the minimum capital requirement, supervisory review, and market discipline are the three mutually supporting pillars of the new capital accord.

PILLAR 1: Minimum Capital Requirement: The 1988 Accord's definition of eligible regulatory capital, which is unchanged, risk-weighted assets, and the minimum capital to risk-weighted assets are the three essential components of the minimum capital requirements. The new Accord focuses on measuring the risks represented in the risk-weighted assets.

PILLAR 2: Supervisory Review Process The goal of the supervisory review process is to make sure that banks have enough capital to cover all of the risks associated with their operations and to motivate them to create and implement more effective risk management strategies.

PILLAR 3: Market Discipline: This third pillar addressed guidelines and disclosure tools for market banks. According to the notion, the boards of directors of banks should have a documented disclosure policy. This policy should outline the banks' goals and plans for making information about his performance and financial situation publicly available. Banks should also put in place a procedure for evaluating the frequency and appropriateness of their disclosures (Santos, 2001).

Risks in Banks

Credit risk, liquidity risk, market risk, operational risk, reputation risk, and legal risk are the six categories of hazards that banks face, according to Goebel et al. (2013) Each of these risks has the potential to negatively impact the likelihood, market value, liabilities, and shareholder equity of the financial institution. In the following, we give a quick overview of each risk.

The danger of funding associated with an unforeseen incident, such as a significant charge-off or currency crisis, is known as liquidity risk (Santomero, 1997). In particular, a bank's decreased capacity to satisfy both anticipated and unforeseen present and future cash flows is a sign of liquidity risk. Alternatively, it cannot satisfy collateral requirements without affecting the institutions' regular operations and financial standing.

Although market risk cannot be entirely eliminated by diversification, it can be hedged. Indeed, it may be considered an undiversifiable risk (Santomero, 1997). It can take many various forms, including fluctuations in interest rates and currency values.

The challenges of accurately processing, settling, and accepting delivery on trades for the exchange of cash are related to operational risk. Additionally, it entails maintaining records, handling system malfunctions, and adhering to various rules. Individual operational issues are therefore a little part of a well-run organization, but they have consequences that can be very expensive (Santomero, 1997). Negative perceptions give rise to reputational risk, which can impact an organization's value and profit. It shows a decline in the institution's brand value or a lack of persuasiveness (Malik, and Holt, 2013).

Financial contracts typically involve legal risk, which is distinct from the legal ramifications of credit, counterparty, and operational risk. Regulations, tax laws, court rulings, and new status might put previously stable transactions in jeopardy. For instance,

environmental regulations have impacted the value of older buildings, putting lending institutions at risk. The actions of the bank's management or staff, such as fraud and breaking rules or laws, can also pose a legal risk (Santomero, 1997).

According to Bah and Duramany-Lakkoh (2022), one of the biggest risks to a bank's success is credit risk. Counterparties in loan and derivatives transactions run the risk of defaulting, which is defined as failing to make timely principal and interest payments. The credit risk of banks is the main subject of our study. When credit risk is taken into account, the bank's credit risk is significantly influenced by credit default. Credit default can occur for a variety of causes, according to Van Gestel and Baesens (2008). The obligor is typically under financial strain and may be in danger of filing for bankruptcy. In the event of a fraud or legal issue, he may also decline to fulfill its debt service obligation.

On the credit derivative market, credit risk can also represent a risk of loss. A credit rating downgrade is one example of a credit migration. or when the bank makes debt investments to reputable borrowers whose risk profile has declined (Choudhry, 2012). In a liquidation, the bank experiences a net loss on the market since the price at which the debt is sold is less than the price at which it was purchased (Van Gestel and Baesens, 2008). The administrators can see the full extent of loss in a full default right away; this is referred to as the "recovery value" (Choudhry, 2011). In general, the bank does not need to suffer a significant loss. The percentage of recovery from the defaulted counterpart and the entire exposure to the counterpart determine the loss of default. Collateral and assurances may be necessary for the recovery (Van Gestel and Baesens, 2008). According to Afriyie and Akotey (2012), inadequate institutional capacity, ineffective credit guidelines, an ineffective board of directors, low capital adequacy ratios and liquidity, mandatory quota lending due to government intervention, and inadequate central bank supervision can all worsen a bank's credit risk situation. Thus, effective risk management is essential and beneficial for banks to enhance performance and lessen risk-related harm. We will first discuss bank risk management and then focus on credit risk management in the next section.

Determinants of Financial Performance

Profitability is used to describe a bank's financial performance, and profitability is only meaningful when it refers to a growth in net assets. The ability of a business to generate a respectable profit on the owner's investment is known as profitability. The majority of businesses exist to make money, and profitability ratios demonstrate the general effectiveness and success of an organization. Profitability ratios can be separated into the following sections: returns and profit margin. The ability of the company to convert assets into profits at different phases of measurement is represented by ratios that display margins. The capacity of the company to gauge its overall effectiveness in producing returns for its shareholders is demonstrated by ratios that display returns (Bessis, 2005). Return on equity, return on investment ratios, and profit margin on sale are the most often used metrics for measuring profitability.

$$\text{Return on Asset} = (\text{Net Income} / \text{Total Assets}) * 100$$

$$\text{Return on Equity} = (\text{Net Income} / \text{Total Equity}) * 100$$

$$\text{Profit Margin} = (\text{Net Income} / \text{Net Sales}) * 100$$

Waymond (2007) claims that as profitability is linked to the outcomes of management performance, profitability ratios are frequently used in a high stream as the indicators of credit analysis in banks. The most popular ratios are ROA and ROE, with ROE's quality level ranging from 15% to 30% and ROA's at least 1%. The most crucial indicator of a company's success is its profitability (Mishkin, 2002). A firm cannot endure if it is not profitable. On the other hand, a very successful company might provide its owners with a substantial return on their investment. One of the most crucial responsibilities of business managers is to increase profitability.

Risk Management

One important factor that impacts an organization's level of progress is risk management. In order to identify, prevent, and lessen the risks associated with an organization's activities, appropriate risk control mechanisms and systems should be implemented (Beckmann et al. 2007). Effective risk management has the potential to significantly lower an organization's operating expenses. Risk management has become a crucial concern in a society that is continuously evolving, with each change introducing new business practices with varying results. The current global financial crisis serves as a reminder that, in order to regularly meet performance goals, risk management and its application are essential. It has become apparent that managers and business owners must now take into account the risk management strategies that companies have implemented in order to avoid falling short of their strategic goals as they work to maintain and enhance performance. In the financial services industry, which was most impacted by the most recent financial crisis, this is even more true. The four primary categories of risks that financial organizations face are credit, market, operational, and strategic risks (Udeh et al. 2024). The organizational culture and support, whether or not risk management is integrated in the setting of organizational objectives, whether or not there is a documented risk management policy or framework, how the risk identification process is carried out, the risk analysis process, the evaluation and treatment of risk, risk monitoring and review, and, last but not least, making sure that there is effective risk management, all had an impact on the risk management approach that the owners and/or management adopted in managing these risks (Holland, 2010).

Review of Empirical Literature

Since the start of the financial crisis in late 2007, research on how risk management affects commercial banks' financial performance in emerging nations has increased. In order to ascertain the impact of a variety of risk variables on financial performance as assessed by return on assets (ROA), return on equity (ROE), return on capital employed (ROCE), and net interest margin (NIM), these studies have adopted a variety of estimate methodologies. The most significant risk that commercial banks face is recognized to be credit risk. As a result, some research has only looked at how credit risk management affects commercial banks' financial performance. The ratio of non-performing loans to loans and advances (NPL/LA), the ratio of total loans and advances to total deposits (LA/TD), and the ratio of loan loss provision to classified loans (LLP/CL) were the credit risk factors and the profitability metric was ROA. The capacity of banks to produce positive cash flows and sustain steady profits is measured by their profitability. It gauges the level of stewardship and represents the competitiveness of banks. According to Nicolae, Bogdan, and Iulian (2015), there are two

types of factors that affect commercial banks' profitability: those that are under management's control (internal determinants) and those that are outside of it.

Afriyie and Akotey (2012) looked at how risk management affected the profitability of community and rural banks in Ghana's Brong Ahafo Region. The estimation was done using the panel regression model, and the review period ran from 2006 to 2010. The findings showed that while capital adequacy had no effect on profitability as determined by ROE, non-performing loans had a substantial positive impact. In a study of six Ghanaian commercial banks from 2005 to 2009, Boahene et al. (2012) also discovered that credit risk indicators, such as the non-performing loan rate, net charge-off rate, and pre-provision profit as a percentage of net loans and advances, were positively and significantly correlated with profitability as measured by ROE.

The impact of risk management on commercial banks' profitability has been the subject of numerous studies by different authors; nonetheless, the literature evaluation for this study has highlighted risk categories that could result in financial losses for commercial banks. The risk categories can be divided into two groups: those that are directly under the control of the banking sector and those that result from macroeconomic variables outside the company's direct control (systematic risks). These dangers have been identified and explained along with the several control methods that are available. It has been observed that risk elimination is challenging and frequently unachievable. As a result, some risks can be transferred while others can be reduced. It's interesting to note that every author cited in the review, including Santomero et al. (1997) and others whose work was reviewed, has written on a variety of topics related to the topic, particularly the necessity of appropriate risk management and control measures. However, more has written on the impact of risk management in the banking industry, which is what this study aims to accomplish.

RESEARCH METHODOLOGY

Research Design

This paper is a descriptive analysis of a profoundly licensed commercial bank in Sierra Leone. Descriptive research is the process of gathering information to address inquiries about the conditions of the study's participants. The survey was chosen because accurate and statistically sound data was required. This approach was chosen since it would be convenient to do the research because the chosen bank's offices are situated in Freetown.

Sources of Data Collection

To obtain reliable results, this study used both primary and secondary data. The goal of employing primary source data is to obtain perceptions of factual information about banks' financial performance and risk management. Personally, administered questionnaires and interviews were used to gather the study's primary data. Questionnaire administration is a technique for gathering, recording, and eliciting data. Documents containing the chosen bank's financial reports provided the secondary data. This date was acquired between 2014 and 2019, a span of six years. Only fifty of the sixty employees who were specifically chosen answered the questionnaire.

Table 1: Response Rate of Questionnaire

Questionnaire	Rate
Returned	50
Not returned	10
Total	60

Source: Research Data

Ten questionnaires, or 17% of the total, were not returned, and only 50, or 83% of the total, were returned. There were 41 male responses, or 68% of the total, and 19 female respondents, or 32% of the total. This indicates that men made up the majority of the study's responses. First degree holders make up 56% of the respondents, followed by master's degree holders (30%), diploma holders (10%), and 4% for the others.

Data Collection Instrument

The quantitative data consist of information obtained from the financial reports of the bank. It enables the summary of information and facilitates comparisons across different years using dependent variables (ROE) and independent variables (NPLR) when loan is given out to various sectors for further analysis; whilst qualitative the qualitative data is aimed at explaining bank experience with the industry in Sierra Leone.

Data Analysis

Descriptive and inferential statistics is used to analysis the relationships, differences and to compare trends. Key to the research is establishing the linkage between risk information sharing, loan book size and non-performing loans. Data is presented using tables in order to elaborate and establish the effect of risk management on financial performance of commercial banks in Sierra Leone.

ANALYSIS AND DISCUSSION OF RESEARCH RESULTS

Table 2: The Impact of Risk Management Policy on the Financial Performance

Years	Loans And Advances (Le)	Interest On Lending	Impaired Loss on Loan (Bad Debts) (Le)	Profit
2014	145,622,646	26,877,299	5,521,546	23,833,448
2015	187,175,898	32,926,616	3,216,116	32,732,416
2016	288,021,058	43,096,586	6,345,662	37,656,306
2017	314,636,301	43,623,162	3,335,855	46,153,521
2018	399,534,310	57,104,721	5,367,725	63,009,144
2019	443,666,299	63,605,258	21,483,061	61,620,647

Source: Financial statements

From table 2 above and & figure 1 below, the total lending book in 2014 was Le145, 622,646 with Le26, 877,299interests on lending and 3.5% (Le5, 521,546) bad debt. The bank made a profit of Le 23,833,448 in 2014. In 2015, the lending book increased by 28.54% (Le

187,175,898) with a decrease in bad debts of 41.75% (Le 3,216,116) and also, interest on lending increased to 22.51% (Le 32,926,616). We noted that the bank was successful in monitoring its credit which leads to 41.75% decrease in bad debt and 37.34% increase in the profit for 2015. Furthermore, 2016 continue to show more increase in the total lending books of the bank. With 53.88% (Le 288,021,058) increase in 2016, bad debt also increased to Le6,345,662. However, the bank was able to cover its bad debt from its huge interest on lending Le43,096,586 and ended with a profit of Le 37,656,306 in that year. In 2017 also, the lending books increased to Le 314,636,301 with slight increase in interest on lending (Le 43,623,162) as compared to 2016.

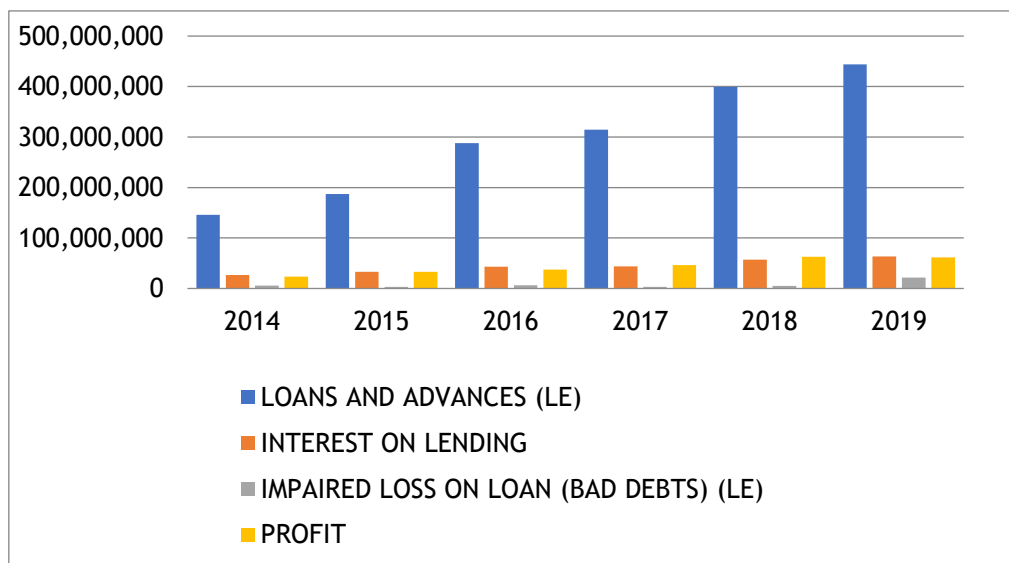


Figure 1: Analysis of Loan and Advances, Interest on Loan, Impaired Loss on Loan and Profit.

Source: Research Data

Notwithstanding the low increase in interest on lending, there was proper credit management in place which resulted to a decrease in bad debt of Le3,335,855. With increase in the lending books and decrease in bad debt, the bank successfully recorded a profit of Le 46,153,521.

Additionally, the lending books increased by 26.98% (Le 399,534,310) in 2018 but the loans were not properly managed and resulted to increase in bad debt of Le5,367,725. The interest on lending was also sufficient enough to cover the debt in 2018 and the bank ended up with a profit of Le 63,009,144.

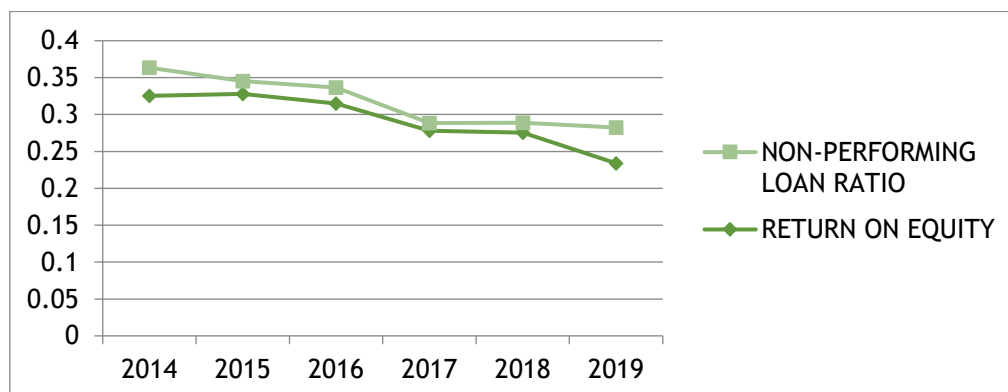
Finally, the lending books of the bank continues to move in the upward direction in 2019 Le443,666,299 and interest on lending Le 63,605,258 with high increase of 300% (Le 21,483,061) in bad debt. The profit for the year decreases by 2.20% (Le 61,620,647) as a result of high increase in bad debt for 2019. In conclusion, we found out the bank was not properly managing its credit exposure which led to the fluctuating figures for bad debt. The data analyzed above shows that the bank relied on interest on lending to cover the loans that went bad which is very risky for the bank.

Table 3: Variables of Performance Indicators

Years	Return on Equity	Non-Performing Loan Ratio
2014	0.325528	0.037917
2015	0.327958	0.017182
2016	0.314769	0.022032
2017	0.277932	0.010602
2018	0.275299	0.013435
2019	0.233913	0.048422

Source: Financial Statements

Figure 2. reveals that there was negative relationship between return on equity and non-performing loan ratio at the bank. In 2014, the Bank returns on equity was 32.55% which shows that the bank focuses more on its credit appraisal techniques which increase the bank performance to a very great extent. Credit appraisal is a tool the bank uses to appraise its credit and ensure that it is in line with the laid down policy of the bank. In 2014 the non-performing loans ratio was 3.79%. However, with proper credit monitoring tools, the bank was able to reduce its non- performing loans by 1.72% in 2015, while the return on equity was increasing at a steady rate of 32.79%. The increase was as a result of the high interest on loan that the bank was receiving.

**Figure 2: Return on Equity and Non-Performing Loan Analysis**

Source: Research Data

Furthermore, in 2016 the bank's return on equity falls to 31.48 % which indicated that the credit of the bank was not properly managed and as a result the non-performing loans increase to 2.20% in 2016 as compared to 1.72% in 2015. Thus, an increase in non-performing loan from 2015 to 2016 by 28.23%, will affect the return on equity by 4.02% decrease. In addition, in 2017 the bank experienced a reduction in return on equity of 27.79%, the non- performing loans falls to 1.06% indicating that a reduction in NPLR doesn't result to an increase in return on equity. Both returns on equity and non-performing loans decrease which shows that the bank did not manage its credit in this year as compared to 2016.

In 2018, the bank's return on equity continues to decrease to 27.53% while the non-performing loan in this year increased to 1.34% indicating that the appraisal techniques used

by the bank is not effective. Finally, in 2019 the return on equity decreased as non-performing loan increases. It shows that the bank was not monitoring the credit it was giving out to customers which resulted to an increase in non-performing loan to 4.84%.

Table 4: Variable of Performance

Years	Return on Assets
2014	0.040869
2015	0.049457
2016	0.049997
2017	0.053668
2018	0.062749

Source: Research Data

Return on Assets Analysis

Figure 4.6 and table 4.3 shows that there were deliberate credit management policies put in place at the bank in terms of return on the bank's assets. In 2014, the bank experienced a huge return on assets of 4.09% indicating that the bank manages the credit it uses to invest in assets that helped in returning the smooth operations of the bank. In 2015, the bank generated a huge return on assets of 4.99% which shows that the bank improved efficiently in managing the bank's assets so that it generates more returns on investment in assets. The bank's returns on assets from 2015 to 2018 continued to increase which points to the level of good performance in the credit used for investing in the assets of the bank. Finally, in 2019 the return on assets fall to 5.11% indicating that in this period the bank was not monitoring its assets and as a result it did not manage the bank's credit properly leading to a fall in Returns on Assets.

Table 5: Descriptive Statistics for the Variables

	Return on Asset	Return on Equity	Non-Performing Loan ratio
Mean	0.0513	0.2926	0.0249
Median	0.0768	0.4537	0.0273
Variance	16.4650	11.0045	24.9187
Standard Deviation	4.0577	3.3173	4.9919
Range	0.0219	0.0940	0.0378
Count	6	6	6

Source: Research Data

Table 4.3 shows the descriptive statistics of the variables included in study from the year 2014 to 2019. It shows that on average, the value of the bank's performance as measured by return on assets is 5.13%. The bank generated a total asset of 5.13% return indicating that during the period of 2014 to 2019, the total assets generated by the Bank is 5.13% returns. In addition, on average, the value of return on equity is 29.26% with a standard deviation of 3.3173 which shows that during the period of 2014 to 2019 the bank generated a total of 29.26% return on equity. The non-performing loans on average was

2.49% with a standard deviation of 4.99% which shows that during the period of 2014 to 2019 the non-performing loan the bank generated was 2.49% and it was a good indicator for the bank in terms of non-performing loan ratio and it is below the tolerable limit set the central bank. Overall, the findings indicate a significant positive influence on interest income, loans and advances, Total Assets and Equity on the bank performance as measured by ROA and ROE. However, the research also discovers that non-performing loans are negative and there was variation in return on assets as well as return on equity.

Table 6: Total Yearly Deposits and Profit (Asset Quality)

Years	Total+ Deposit	Profit
2014	484,463,642	23,833,448
2015	529,656,424	32,732,416
2016	607,268,871	37,656,306
2017	615,959,715	46,153,521
2018	748,086,602	63,009,144
2019	894,75,7191	61,620,647

Source: Research Data

In 2014, the bank's total deposit was Le 484,463,642 and the profit the bank made amounted to Le 23,833,448. The deposit of the bank increased by 9.33% in 2015 while the bank's profit increases by 37.34% indicating that when there is a slight increase on customer deposit, the bank will use depositors fund to give out loans and advances and makes profit on both the amount lend out to customers (principal) and the interest received on lending. In addition, there was an increase in deposit by 14.65%, and a slight increment in profit by 15.04% in 2016.

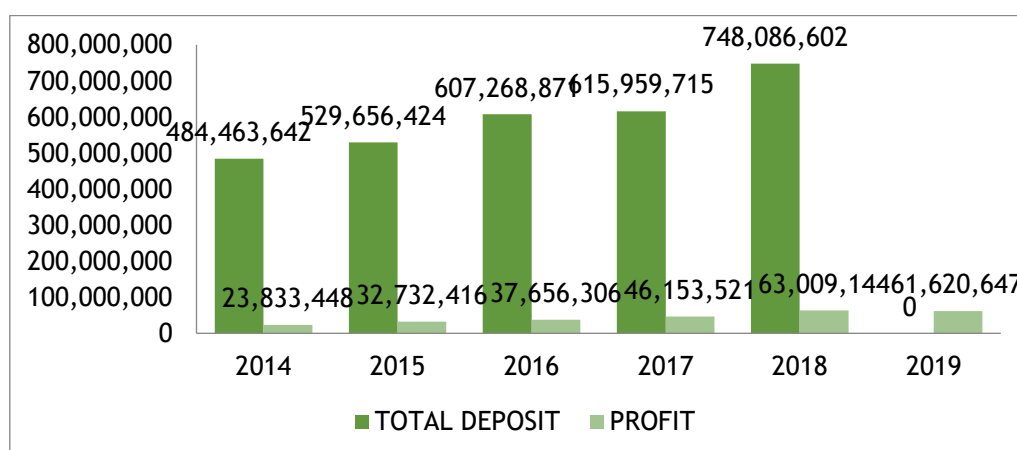


Figure 3: Analyses of Total Asset Quality and Profit

Source: Research Data

The trend of increment in deposit continues in subsequence years but the profit of the bank decrease by 2.20% in 2019. Finally, the bank was able to manage its credit in the previous years but in 2019 there was no proper monitoring of credit.

Discussions of Findings

Respondents stated that risk management techniques had improved banks' financial performance by either cutting expenses or raising income. The conclusion drawn from the literature review is that commercial bank performance is influenced by important variables other than risks. These elements are typically divided into two categories: external determinants, which are typically macroeconomic variables that have an impact on the operating environment of commercial banks and, consequently, their performance, and internal determinants, which include size, structure, and internal efficiency.

Additionally, conversations on banks' adherence to the central bank's directives and rules regarding credit policy and procedures revealed that they do. Respondents stated that the bank made extensive use of credit risk management techniques when it came to their application. They mentioned the CAMPARI (character, capacity to repay, margin of finance, purpose, amount, repayment terms, and insurance) and 5Cs (character, capability, capital, collateral, and conditions) principles of lending. The five C's of credit are frequently used by bank credit analysts to concentrate their investigation on the most important aspects of an applicant's creditworthiness. Character, Capacity, Capital, Collateral, and Conditions are some of them. *Character*: the candidate's track record of fulfilling financial, contractual, and moral commitments. The applicant's character would be assessed based on past payment history and any outstanding or settled court cases. *Capacity*: The ability of the applicant to pay back the credit that has been requested. The applicant's capacity is usually evaluated through financial statement analysis, with a focus on debt and liquidity ratios. *Capital*: Based on the applicant's ownership position, the bank also evaluates the applicant's financial stability. The capital of the application is often evaluated by analyzing its debt to equity and profitability ratios. *Collateral*: The quantity of assets the applicant has on hand to secure the loan; the more assets available, the higher the likelihood that a business will be able to recoup its money in the event that the application defaults. Collateral can be assessed by looking at the applicant's balance sheet, asset value assessments, and any lawsuits brought against the applicant's assets. *Conditions*: Any special circumstances influencing either party to the credit transaction, as well as the state of the economy and business. For instance, the company might be ready to sell to less creditworthy applicants or on better terms if it has extra inventory of the goods the applicant wants to buy on credit. Conditions are evaluated by analyzing the overall business and economic conditions as well as any unique situations that might have an impact on the applicant or company. Bankers and loan officers will take into account the reliability and integrity of the business owner in addition to data pertaining to a small firm's creditworthiness. The approval of a loan with the extended line may depend on this intangible perception that a business owner is a worthy credit risk. Integrity is a concept that must be developed gradually. It is based on giving the impression that you can be relied upon to follow through on your commitments, know what is best to do to ensure the success of the company, and be able to carry out the proper choice. When evaluating a potential credit applicant, bankers are believed to consider the drink "CAMPARI," which stands for the following: *Character*: As said earlier, the bank takes integrity into account. A sense of professionalism, which can be shown in one's demeanor and attire, will be included in that definition of integrity. Bankers will also consider a person's success history as a business leader. *Ability*: Repayment of the loan's principal and interest is the bank's top priority. A business's capacity to repay the loan must be amply demonstrated by the loan applicant. To demonstrate to the banker that the loan

will not be defaulted on and will be repaid on schedule, all supporting documentation should be presented. *Means*: This is the capacity of a company to operate in a way that allows it to pay back the debt. The bank needs to be persuaded of this important aspect. The best way to do this is by providing a comprehensive business plan with detailed numbers that indicate the business's ability to repay the loan. The business strategy and business model that will be used to persuade the lender of the viability of the overall plan should also be included in the business plan.

The bank is constantly curious about the intended use of the borrowed funds. Never claim that having more money is preferable to having less when applying for a loan. You should specify exactly how the funds will be spent, such as buying capital equipment. After that, you should additionally explain how the purchase of capital equipment would impact the company's profitability. *Amount*: According to the bank's responder, it would be quite unwise to start a business loan request by stating, "I need some money." It is crucial to clarify the precise loan amount and provide justification for how you intend to utilize it. *Repayment*: According to the bank, proving one's capacity to pay back the principal and interest. Once more, obtaining a loan requires thorough documentation, including predicted cash flows, profit margins, and sales projections. It is crucial that you make an effort to be as truthful as you can when creating this data. *Insurance*: Even the most meticulously calculated sales and profit forecasts may not work out for the bank. Presenting the bank with backup plans outlining how you would repay the loan in the event that the scenarios you have mentioned do not materialize would be extremely helpful.

Conclusion

The main objective of the study was to assess risk management in the banking industry in Sierra Leone. The study used both primary and secondary data collection methods. The primary data was collected by use of a structured questionnaire and interviews methods and the secondary data was obtained from the bank published annual financial reports, text books and newspapers. The study distributed questionnaires which assisted to examine risk management in commercial banks in Sierra Leone. The sample size of the study was one hundred and fifty employees and the targeted population at a renown commercial bank. The rate of respondent was 83 percent. Data was gathered by analyzing the answers from staffs. The analysis was done using variables (total loan, non-performing loans, and profit and loss) as well as tables and charts. The study used 6 years data from the bank to examine the relationship between total loan granted to client, non-performing loans, the profit made by the bank as well as loss.

The study found that most of the respondents agreed that client default loan payment after using the lending principles, credit monitoring as well as assessment of credit to a very great extent. The study found that loans and advances are known to be the main stay of all banks. They occupy an important part in gross earnings and net profit of the banks. From the findings, to promote the lending function to the required level, the Bank should produce and follow up to date, implement convenient credit policies, and procedures to attract potential loan clients and develop a long-lasting borrower relationship. Most of the respondents revealed that capacity, cash flow and conditions are also part of the approaches mostly used in credit analysis. There are two other approaches mentioned which

were character of the borrower and collateral or security these were two other crucial approaches used by bank to award credit to customers.

The general interest of stakeholders in the performance of commercial banks can largely be attributed to the role they play in mobilizing deposits from the surplus sector and channeling same to the deficit sector. However, inefficient risk management poses a great danger to the profitability of a bank. Consequently, effective and efficient risk management has become more critical given the recurring incidences of bank distress and failure across the globe. This study adds to the existing literature on the assessment of risk management in the banking industry.

From the findings, the study concludes that commercial banks need to ensure that there is effective assessment of risk management in order to improve on profitability and meet its objectives, minimize debt loss and ensures that financial institutions perform better by increasing profit and helps the institutions in attaining maximum financial returns. The study has also concluded that the client has defaulted on loan payment as per agreed terms and conditions with the bank and after implementing the lending principles. The study found that the approaches used by the bank very useful in granting credit to borrowers.

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