Performance And Risk: Empirical Evidence From Rhb Bank

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Abstract

This study will discuss about the relationship of many risks such as credit risk, liquidity risk, operational risk and market risk with the performance of a bank that is RHB Bank. All these factors will be calculated and will be seen about how much will it give effects to the performance of the company. In this paper, I will look for various journals and articles as sources to find about the relationship between the variables and the company's performance. Besides, I provided descriptive findings of one of the bank in Malaysia and that's RHB Bank where all the risks will be calculated to the following ratio as non-performing loan ratio will be used to measure the credit risk of the bank, total cash over total assets will be used to measure the liquidity risk of the bank, operating efficiency ratio will be used to measure operating risk and market risk used the rate of inflation, Gross Domestic Product (GDP) and the bank's return on assets as the variable to measure the market risk. The findings regarding of the relationship of risks and the performance of the company from the journals will be discussed and be related to the descriptive findings from the RHB Bank. Based on the discussion, most of the relationships of all the risks and the performance of the bank are in tally and consistent with the findings calculated for RHB Bank.

***Keywords*: Liquidity Risk, Operational Risk, Market Risk, Profitability**

1.0 Introduction

RHB Group was founded as a public limited company on 24 August 1994 under the name of DCB Holdings Berhad and they are now being listed on the Bursa Market Malaysia and is the fourth largest integrated financial institution that provide services in Malaysia. RHB bank was formed because of a merger between Kwong Yik Bank Berhad and DCB Bank. This merger was known to be the largest merger of bank at that time. After that, RHB Bank is known to be the first conventional bank in Malaysia to set up an Islamic banking subsidiary as RHB Islamic Bank Berhad. There's a merger happened between OSK Investment Berhad (OSKIB) and RHB Investment Berhad (RHBIB) in April 2013. This merger has made RHB Investment Berhad as the largest investment bank in Malaysia in terms of total assets. RHB is the one of the subsidiaries of RHB Group. Other subsidiaries of RHB Bank are RHB Islamic Bank Berhad, RHB Investment Bank Berhad, RHB Insurance Berhad and others. The bank's size or total assets keep increasing for the last 5 years. In 2011, the bank able to keep total assets amounted to RM120,507,417. It increased to RM144,661,155 in 2012, RM145,573,549 in 2013 and RM172,134,201 in 2014. For the last 5 years, RHB Bank maintains the highest amount of total assets in 2015 which was RM181,000,966.

2.0 Literature review

Risks are known to be one of the factors that influenced and give impact to the company's performance. There are few types of risk that exist such as credit risk, liquidity risk, operational risk and market risk. Based on all these risks, the portion of risk that's associated in each of the company differs from one to another based on their industry. For example, banking and financial industry may have to face more on the credit risk and liquidity risk where their main company operation is on lending and saving of money. The higher amount money the bank gives out as a loan to the customers, the higher amount of credit risk that the bank or the financial institutions need to face and the other example is about manufacturing industry. The companies that have manufacturing as their main operation may have to face a bigger amount of operational risk.

A finding by Sufian (2009) shows that the Chinese commercial bank that have high level of profitability has higher amount of credit risk, capitalization and size of assets while Chinese commercial bank with lower level of profitability has higher amount of liquidity risk and higher amount of overhead cost. In the process of this finding, Sufian (2009) used the fixed effect estimator method to find out about the influence of the risk on the company's performance. Another finding by Sufian and Habibullah (2009) stated that factors or determinants that lead to higher amount of profit for joint-stock commercial banks in China was because of higher amount of risks, capitalization and liquidity. They have been using the same method to investigate about the risk and profitability like Sufian (2009).

A study by Waemustafa and Abdullah (2015) that's about the relationship between the remuneration of islamic bank, Shariah Supervisory Board (SSB) and the method of activities of the islamic bank. The analysis or this study used 18 islamic banks and their annual reports as their sample and source of information. In this study, they suggested that there's a positive relationship between the SSB remuneration and the bank's financial growth and thus gives effect to the method of financing or activities to the bank. They also suggested that there's no relationship between the method of activities of the bank and the SSB effectiveness. Based on their analysis result, the hypothesizes follows their result.

Credit risk is one of the risk are extremely important for the bank to manage on. It's the nature of the banking business that they are relying heavily on giving loans to their customers as giving loans and accepting even though the bank itself are now moving on to the fee-based services due to the increasing number of competition in the business. The bank is exposed to the risk where the borrower refuse to pay the loan that they made and the bank has to face the loss by themselves.

According to Brown and Moles (2014), they define credit risk as the risk that have connection to the loans. In return of the loans that the bank gives to their customer, they will receive interest back in return as a revenue for giving out loans. Hosna, Manzura and Juanjuan (2009) said that credit risk is the most crucial type of risk for commercial bank. The bank can manage this type of risk by using various type of techniques or ways such as asking for collateral as part of terms to take loan, the borrowers have to have a strong credit standing and guarantees. Brealey and Myers (2003) stated that they are many ways to measure the profitability of the business institutions such as by using the financial ratios return on equity (ROE) and return on assets (ROA). The information needed to calculate the risks of the bank can be taken from their financial statements from their annual reports. Credit risk gives huge impact to the bank's financial statements where it will determine the amount of loan, the return stated in the annual report.

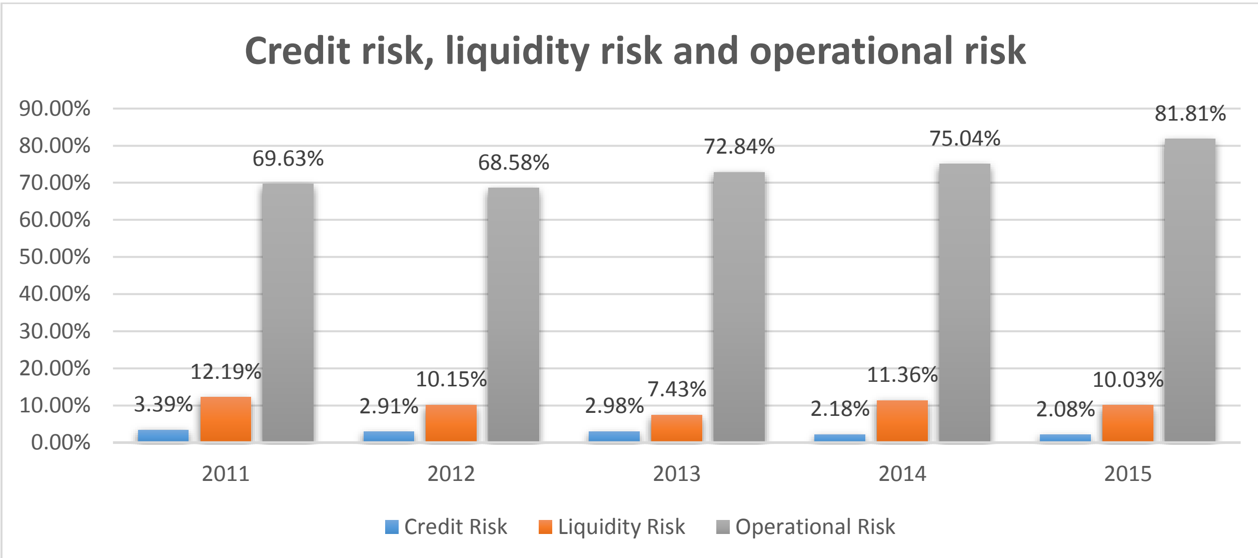
While according to a study by Bayyoud and Sayyad (2015), they found out that there is no relationship between the credit risk and the profit of the bank where they can be affected by credit facilities. There were many past studies that gives evidence to us about the relationship of the credit risk as part of the risk and the profitability. According to Gholami and Salimi (2014), the bank's profitability is hugely depending on the risk management of the bank as it will massive impact on the bank's financial statements.. The study shows a negative relationship between the credit risk management and the company's profitability. However, a positive relationship was found by Afriyie and Akotey (2012) between non-performing loans and the profitability of the bank. They found out that banks with high credit risk can also achieve high profit. Gizaw, Kebede and Selvaraj (2015) also found the same thing where there's a significant relationship between non-performing loan, loan loss provisions and capital adequacy.

According to a study by Waemustafa and Sukri (2016), they found out that liquidity ratio that's used to find out about the liquidity risk has a positive relationship with the Return On Asset (ROA) where islamic banks able to maintain their liquidity problem by maintaining their cash reserve in BNM. Even though the liquidity ratio showed that its increased at the same time the ROA increased, the islamic bank still able to make profit. Their finding is in consistent with the previous studies such like a study by Ghazali (2008) where he found out that a positive relationship between liquidity and ROA while it's contradict with a study by Choon et al. (2012) where he found out that liquidity and ROA has a negative relationship where when the liquidity risk increase, ROA will decrease.

Credit risk can be influenced and affected by many determinants internally and externally. Both islamic bank and conventional bank have their own different determinants that affect the bank's credit risk. According to a study conduct by Waemustafa and Sukri (2015), they found out that there are many factors that influence the bank's credit risk and it differs from conventional to islamic bank. For the bank specific factors for islamic bank, the regulatory capital or in other words it's a capital requirement for the bank to keep as reserve and an islamic contract give impact to the bank's credit risk. While the influencing factors that affect the credit risk of conventional bank are loan loss provisions, regulatory capital or capital requirement, debt to total asset ratio, liquidity, size and earning management. While for the macroeconomic factors, M3 and inflation give effect to the bank's credit risk. M3 is the combination of money supply that include M2 and large liquid assets such as large time deposits, short term repurchase agreements and institutional money market funds.

3.0 Descriptive Finding (RHB Bank)

3.1 Credit Risk, Liquidity Risk and Operational Risk



Graph 1

The formula used to calculate the above risks are as follows:

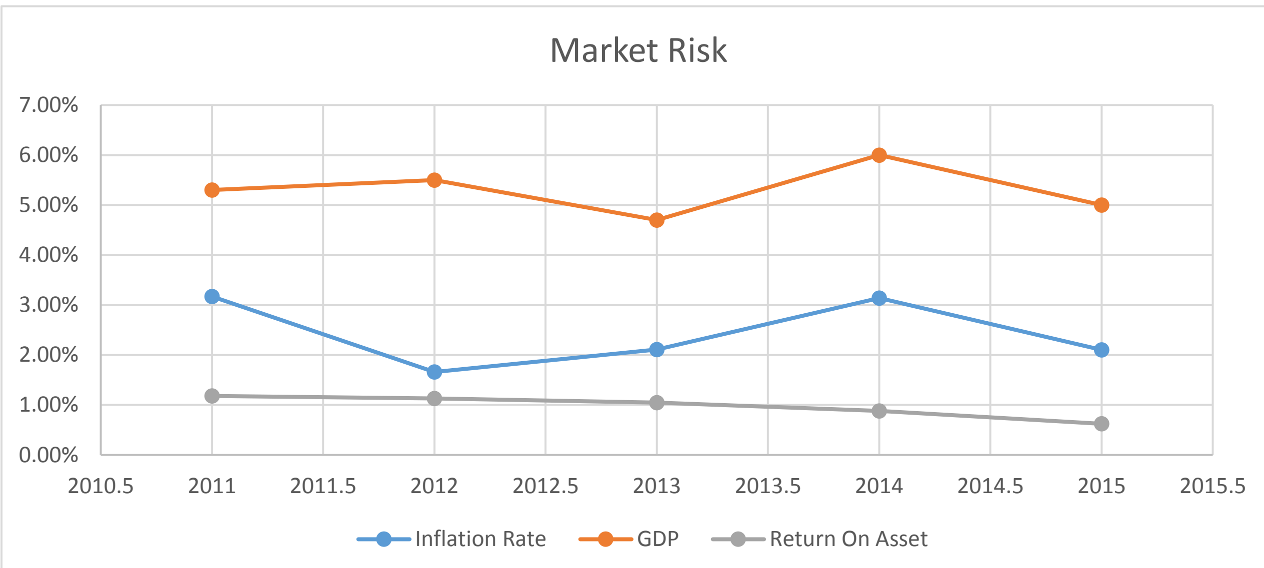
Credit Risk (CR) = Non-performing Loan/Total Loan

Liquidity Risk (LR) = Cash/Total Assets

Operational Risk (OR) = Total Expenses/Total Income

As you can see from the above graph, the credit risk of the bank decrease from 2011 to 2015. This shows a good sign where the non-performing loan of the bank has decreased from year to year. For example, in 2011, the percentage of non-performing loan from the total loans is 3.39%. This means that from the total loans of the bank, the amount of the non-performing loans is only 3.39%. The lower the amount, the better it is for the bank. While for the liquidity risk, we use the formula of total cash over total assets. We'd like to see the portion or the percentage of the cash from the total assets. The higher the percentage, the better it is for the bank. However, too much cash also doesn't show a good sign. It shows that bank keeps the cash idle and didn't make any investment to make profit from it. As you can see, the amount decreased from 2011 to 2013 and then increased in 2014 and decreased in 2015. For the operational risk, we use the formula of operating efficiency ratio by using total expenses over total income. From the graph above, the amount keeps increasing from 2011 to 2015. This doesn't show a good sign where the bank's expenses over their income keep increased from year to year. Their level of efficiency has dropped from 2011 to 2015.

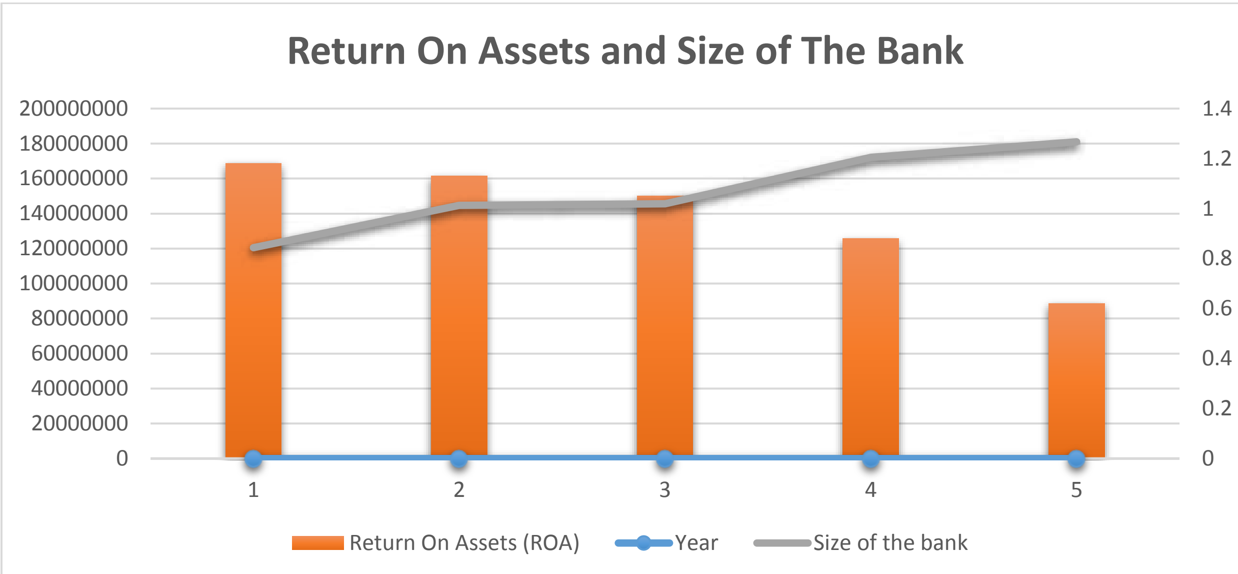
3.2 Market Risk



Graph 2

The variables that we use to calculate the market risk of the bank are the performance of the bank which is by using the Return On Asset (ROA) ratio, the Gross Domestic Product (GDP) and the inflation rate of Malaysia for 5 consecutive years. Based on the graph above, we can see that the highest performance for RHB bank for the last 5 years was during 2011 with the highest amount of ratio. During that time, we can see that the inflation was the highest which at 3.17% while for GDP was at 5.30% that's the third highest for the whole 5 years. The lowest performance by RHB bank was during 2011. We can see that the inflation rate during that time was the second lowest for the last 5 years. While for the GDP in 2015 was at 5%

3.3 Return on Assets and Size of the Bank



Graph 3

Return of Assets is used to measure the performance of the bank. The formula used is net income over total assets. As you can see from the figure above, the amount of ROA of the bank keeps decreasing from 2011 to 2015. This doesn't show a good sign where this means that the bank's ability to make profit from their total assets decreased in the 5 years. The higher the amount, the better it is for the bank. For the last 5 years, the highest amount of ROA for the bank was in 2011.

Total assets of a company or a bank represent the size of the company or a bank. For RHB, the size of the bank increased from 2011 to 2015. This shows that the bank still able to keep their assets despite that their ROA is decreasing.

4.0 Discussion and Recommendation

4.1 Based on findings from RHB Bank

Based on the literature review of many studies and all the calculations for RHB Bank that I've made, I will discuss about the correlation of both. For the credit risk and the profitability of the RHB bank, it shows a positive relationship between them. Where from 2011 to 2015, the bank's credit risk keeps decreasing and same goes to the profitability of the bank. The profit of the bank can be seen through the Return of Asset of the bank. Based on this result, it has the same correlation like in the study by Sufian (2009) where he found out that when the bank has larger in size, and credit risk, this will lead to high profitability. For RHB bank, their credit risk keep decreased and so did their profitability. A study by Afriyie and Akotey (2012) also shows the same thing where they agreed on the positive relationship between credit risk and profitability. However, this doesn't fit the analysis or a study by Ghalami and Salimi (2014) where they found out a negative relationship between credit risk and profitability.

While for liquidity risk of the bank that we can see on the Graph 1, it has ups and downs. Where it decreases from 2011 to 2013 and slightly increased from 2013 to 2014 and then decreased back in 2015. Overall we can say that the bank's liquidity risk of RHB bank has decreased from 2011 to 2015. For both liquidity risk and profitability of RHB bank, they have a positive relationship where when the liquidity risk decreased, the profitability of the bank also decreased. On 2011, liquidity risk of the bank was 12.19% while the profit of the bank was the highest too at that time. From 2011 to 2013, both variable keeps decreasing. This is a contrary to the finding by Sufian (2009) where he found out that with a higher liquidity risk, a bank will earn a lower profitability. However, a study by Waeibrorheem and Suriani (2016) shows a positive relationship between liquidity risk and the profitability of the bank. Ghazali (2008) also has the same finding while it's a contrary by a finding by Choon et al. (2012).

Lastly, for the size of the assets of RHB and the bank's credit risk, we can see that there's a negative relationship between them where the credit risk of the bank keeps decreasing while the size of the assets keep increasing. The size of the assets do give impact and influence to the bank's credit risk where when the credit risk decreasing, the bank's total assets increasing. This finding is in term with the finding by Waemustafa and Sukri (2015) where he found out that the size of the bank has an impact and influence in the bank's credit risk. That's for the internal factor. While for the external factor such as inflation, it doesn't give much impact to the bank's credit risk as you can see the amount of credit risk and the inflation rate in Figure 1 and Figure 2, the inflation rate doesn't seem to give much impact to the bank's credit risk. No matter if the inflation rate decreased or increased, the bank's credit risk keeps decreasing.

4.2 SPSS Analysis

Table Result 1. Descriptive Statistics of RHB Bank

	Mean	Std. Deviation	N
ROA	.00971855858460	.002250848948084	5
INDEX SCORE	.880	.0447	5
AUDIT REMU	1753.80	242.979	5
ROE	.121	.0296	5
CR	2.7080%	0.55971%	5
LR	10.2320%	1.80311%	5
OR	73.5800%	5.26817%	5
LEVERAGE	11.4669048120	.45465817495	5
INFLATION RATE	2.4400%	0.66933%	5
GDP	5.3000%	0.49497%	5

Table 1

This study included 10 variables. Return On Asset (ROA) is the main dependent variable while the rest of them were independent variables. The highest mean between all the variables is by Operational risk (OR) which is 73.58% while the lowest mean is by ROA which is only 0.9%. All of the variables are the internal factors that affect the bank's return on assets except inflation rate and GDP where these two variables are the external factors. From the table, we can see that the mean of OR is highest among all the risk (CR, LR, OR). This means that in RHB Bank, the highest risk that the bank incurred for the last 5 years was OR while the lowest risk is credit risk.

Table Results 2. Correlation Matrix of RHB Bank

		ROA	INDEX SCORE	AUDIT REMU	ROE	CR	LR	OR	LEVERAGE	INFLATION RATE	GDP
Pearson Correlation	ROA	1.000									
	INDEX SCORE	-.517	1.000								
	AUDIT REMU	.786	-.329	1.000							
	ROE	.987	-.446	.842	1.000						
	CR	.913	-.681	.502	.860	1.000					
	LR	.096	-.607	.469	.131	.022	1.000				
	OR	-.982	.419	-.864	-.999	-.835	-.139	1.000			
	LEVERAGE	.335	.197	.687	.482	.042	.293	-.506	1.000		
	INFLATION RATE	.126	-.635	.307	.055	.094	.687	-.063	-.296	1.000	.
	GDP	.062	.000	.660	.151	-.274	.704	-.192	.616	.468	1.000

Table 2

The table above shows the correlation of all the variables with ROA. As we can see that most of the variables are positively correlated to the ROA however for index score and OR are negatively correlated to the ROA. Based on the finding that I've made, the relationship of CR and ROA is positive and this is in tally with what written in the table above. It stated there that, the CR is positively correlated to the ROA with the amount of 0.913. Same goes to the LR and OR where LR is positively correlated to ROA and OR is negatively correlated to the ROA as stated in the table. The amount of correlation for OR towards ROA is negative, this clearly shows that the relationship between OR and ROA is negatively correlated. The highest amount of correlation towards ROA is by ROE and the lowest amount is by the GDP. For the external factor which is the inflation rate and GDP, both of them shows a positive correlation. Despite of the increase in the inflation rate, the bank still able to make profit and increase their return on assets even though the economy was not doing well during the last 5 years.

Table Result 3. Stepwise Regression Analysis of RHB Bank

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.987[a]	.974	.965	.000418842218506	
2	1.000[b]	1.000	1.000	.000050161427989	2.753

a. Predictors: (Constant), ROE
b. Predictors: (Constant), ROE, LEVERAGE
c. Dependent Variable: ROA

The amount of R square in the table above shows about "the goodness of the fit". Based on the R square above, we can say that all the variables entered as X can explain about 0.987 or 98.7% of the ROA. This is a huge amount where all the variables correlation with the ROA can be explained for almost 100%. We can depend on the variables in order to calculate the amount of ROA and to explain them.

Table Result 7. Anova Regression Analysis of RHB Bank

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	112.519	.002[b]
	Residual	.000	3	.000		
	Total	.000	4			
2	Regression	.000	2	.000	4026.012	.000[c]
	Residual	.000	2	.000		
	Total	.000	4			

a. Dependent Variable: ROA
b. Predictors: (Constant), ROE
c. Predictors: (Constant), ROE, LEVERAGE

4.3 Recommendation

As a recommendation, in order to improve the profit of the bank, they should focus more on the fee based service. As the economy keeps declining, the borrower's ability to repay back the money the borrowed also decreasing. This will cause much loss for the bank if they keep focusing on giving loans to the customer without looking at other alternative to increase their income. As customers nowadays keep using the bank's other services such as the ATM machines and CDM machines, the bank can charge more on those services as customers have no choice but to use the services unless they want to be kept waiting for a long queue at the counter. Next, the bank should increase their promotions on the bank's products and services and do it in a creative way. The bank can use a cheaper way of promotion such like by using the email, posting through mails and giving brochures and flyers at a center location. Plus, the bank should give more training to their staffs regarding about their customer service on how to treat their customers and how they should lead them. A good customer service of the bank will definitely makes the customer not regretting for coming back to the bank. In my recommendation for the bank to reduce the risk, they should tighten up the requirements need for applying a loan. The customers should have more or a better security and they should have a strong backup account in order to apply the loans. In addition, the bank should have a deeper assessment for the credit standing of the customers. They should check thoroughly their credit ability including the 5Cs which are the character, condition, capital, capacity and the collateral. The bank should make sure their amount cash in the bank is always in a good par level. They should monitor it more and make sure their cash are enough to cover up everything in case of anything happen. This will reduce the company's liquidity risk.

5.0 Conclusion

RHB Bank is one of the main conventional bank in Malaysia. They have been established since 1994 and it has been 24 years since the Group of RHB was founded. They able to go through many stages of financial crisis including the Asian financial crisis in 1997-1998. With this finding, I can compare and know the amount of risk circulated in the bank for the last 5 years. I also able to identify when was the highest year of risk of the bank and the amount of profit that they made for the 5 years. Risk management is very important for the bank as it gives a huge impact to the bank especially in the terms of profit of the bank. The bank need to know on how to reduce and mitigate such risk in a proper and effective way. Without a good a proper management of the risk of the bank, the bank can collapse and go bankrupt at any time. A good risk management will give much better profit, good reputation and a higher price of shares.

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