The Relationship Between Risk and Performance in Bank

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ABSTRACT

This paper analyze the risk and performance of one conventional bank in Malaysia. This study included many variables to determined the risk and performance on that bank using five years (2011-2015) data from the bank’s financial statement and annual report. The method that are used in this paper in examine the data are credit risk ratio, liquidity ratio, operational risk ratio, market risk indicator, return on asset ratio, return on equity ratio, net interest margin ratio. All this ratio will determined the risk associated with CIMB Bank Berhad and also the bank’s performance for the past five years. This study employs SPSS time series regression analysis of the bank from the year 2011 to 2015. This paper outlined the result from the analysis.

Keywords: Credit risk, Liquidity Risk, Operational Risk, Market Risk, GDP, Inflation, Exchange Rate, Unemployment Rate and Profitability
1.0 INTRODUCTION

CIMB Group is a main ASEAN general bank and one of the locale's preeminent corporate consultants. It is likewise a world pioneer in Islamic fund. CIMB Group that are headquartered in Kuala Lumpur, Malaysia, offers commercial banking, investment banking, consumer banking, Islamic banking and asset management banking. It is the fifth largest banking group in ASEAN based on its assets and, as toward the finish of 2015, has more than 40,000 staff and roughly 12 million clients. This company has been listed on the Main Market of Bursa Malaysia since 1987 with a market capitalisation of RM38.7 billion. Add up to total assets toward the finish of 2015 were RM461.6 billion, with aggregate shareholders’ assets or funds of RM41.1 billion and total Islamic assets of RM70.7 billion. CIMB Bank is the consumer banking arm of CIMB Group offering their services to more than 5 million clients in 323 branches across the country. The Bank has branches in Hong Kong and London, and in addition delegate workplaces in Shanghai and Myanmar. CIMB Bank holds significant market shares across all consumer banking product. Their total assets for CIMB Bank toward the end of 2015 were RM 291.4 billion.

Tengku Dato’ Sri Zafrul Tengku Abdul Aziz is the Group Chief Executive Officer/Executive Director of CIMB Group Holdings Berhad, a main ASEAN general bank and a world pioneer in Islamic finance with nearness in 17 nations around the world. He is additionally the Chief Executive Officer/Executive Director of CIMB Bank Berhad. With more than 19 years of involvement in the financial services sector, having some expertise in Investment Banking, Tengku Zafrul's last position was with Maybank Investment Bank Berhad and Maybank Kim Eng Holdings as Chief Executive Officer. He additionally held senior positions in Citigroup Malaysia, Kenanga Holdings Berhad and Avenue Securities that are now known as ECM Libra.
2.0 LITERATURE REVIEW

Cooper et. al. (2003) showed that loans regularly speak to the significant bit of a banks investment portfolio, subsequently relative changes in total loans or advance may demonstrate changes later on strength of the financial institution that is roll out improvements in loan-loss reserves may show changes in the soundness of a banking's portfolio and, may flag changes later on the performance of the bank. While loans represent a noteworthy part of a bank's portfolio that promptly influences bank risk, loan commitments and obligation may likewise affect risk. many studies give mixed outcomes over the association between loan commitment activity and bank risk.

Santomore (1997) found that operational risk is related with the issues of precisely handling, settling, and taking or making conveyance on exchanges trade for money or cash. It also arises in record keeping, compliance with various regulations and processing system failures. Accordingly, individual operating issues are little likelihood occasions for well-run associations yet they open a firm to results that might be very exorbitant or costly.

According to Armstrong and Caldwell (2008), the major part of banks commonly includes the change of liquid deposit liabilities into illiquid assets for example, advances, this makes banks innately powerless against liquidity risk. Liquidity risk management looks to guarantee a bank's capability to keep on performing this central part. While a few outflows are known with conviction, risk emerges from the need to meet uncertain cash flow obligations, which rely on upon external events and on the conduct of different operators. A liquidity deficit at a solitary organization can have framework wide repercussions, since a withdrawal of trust in one institution can spread to others that are seen to be presented to it or to comparative issues.

Waemustafa and Sukri (2015) found that banks particular determinants of credit risk are interestingly impacted the credit risk arrangement or formation of Islamic and Coventional banks. While risky sector financing like regulatory capital (REGCAP) and Islamic Contract are noteworthy to credit risk of Islamic banks and for Conventional
Banks, debt-to-total asset ratio, loan loss provision, liquidity, earning management, size and REGCAP are critical elements affecting credit risk.

As indicated by Waemustafa and Sukri (2016), the management of risk, assets and liability remain in the middle function of bank and the early flag of banking crisis can be seen from the eccentricity of liquidity risk. While the remarkable way of Islamic banks' mixture of assets and liabilities frame another sort of risks particularly liquidity risk which is an extremely noteworthy risk in Islamic banking. This is on the grounds that the mismatch of its assets and liabilities may bring about a serious bank run to demand depositors.

Waemustafa and Abdullah (2015) extended the study to 18 Islamic banks that are operating in Malaysia from the year 2012 to 2013. The outcome demonstrates that the viability of SSB does not concern with the method of Islamic bank financing, yet the investigation demonstrates that SSB remuneration and bank's financial growth demonstrated a positive and noteworthy association with method of financing.

Ongore and Kusa (2013) demonstrated that assets quality, capital adequacy and management effectiveness out and out offer impact to the performance of commercial banks. Be that as it may, the impact of liquidity on the performance of commercial banks is not solid. The connection between bank performance and capital adequacy and management efficiency was observed to be sure and for asset quality the relationship was negative. This shows that, high non-performing loans or poor assets quality or advance to total asset related to poor bank performance. Therefore, it is conceivable to presume that banks with high asset quality and low non-performing loan are more productive and profitable than the others.
3.0 DESCRIPTIVE ANALYSIS

<table>
<thead>
<tr>
<th>Years</th>
<th>Credit Risk</th>
<th>Liquidity Risk</th>
<th>Operational Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.0395</td>
<td>0.1908</td>
<td>0.6368</td>
</tr>
<tr>
<td>2012</td>
<td>0.0333</td>
<td>0.1587</td>
<td>0.6824</td>
</tr>
<tr>
<td>2013</td>
<td>0.0246</td>
<td>0.1353</td>
<td>0.7160</td>
</tr>
<tr>
<td>2014</td>
<td>0.02</td>
<td>0.1179</td>
<td>0.6850</td>
</tr>
<tr>
<td>2015</td>
<td>0.0180</td>
<td>0.0935</td>
<td>0.7086</td>
</tr>
</tbody>
</table>

Table 1

![RISK OF CIMB](image)

Figure 1

Table 1 shows three type of risk faced by the CIMB Bank Berhad which is credit risk, liquidity risk and operational risk and Figure 1 shows the trend of the ratio. The value or ratio are calculated from the data in the financial statement of CIMB Bank Berhad itself. Credit risk is the probability that some of a financial institution's assets, particularly its loan or advance, will decrease in esteem and maybe get to be distinctly useless. Since financial firms tend to hold little owners' capital with respect to the total estimation of...
their assets, just a little percentage of total loans needs to swing band to push them to the edge of failure. It is decrease from 0.0395 in 2011 to 0.0180 in 2015.

Liquidity risk is the risk that a bank might be not able to meet short-term financial demands from the customers or depositors. This ordinarily happens because of the powerlessness to change over a security or hard assets for money or cash without lost capital or potentially pay simultaneously. Liquidity risk for the most part emerges when a business or individual with immediate money needs, holds an important assets that it cannot be exchange or offer at market an incentive because of an absence of buyers, or because of a wasteful market where it is hard to unite buyers and sellers. From Table 1 and Figure 1, liquidity risk of CIMB are also decreases from 0.1908 in 2011 to 0.0935 in 2015.

Operational risk allude to instability or uncertainty with respect to a financial firm's earnings because of failure in PC frameworks, mistakes, wrongdoing by workers, surges, and comparable occasions. The general gathering of activities incorporated into this risk definition frequently diminish income because of unforeseen operating expenses. A few analysts say that operational risk is the risk of misfortune because of something besides credit or market risk. Based on Table 1 and Figure 1, operational risk ratio for CIMB are not showing decreasing in value like credit risk and operational risk. The operational risk for this bank is fluctuated from year 2011 to year 2015. The value is increases from 0.6368 in 2011 to 0.7160 in 2013 before it is drop back to 0.6850 in the next year and increase back to 0.7086 in 2015.

<table>
<thead>
<tr>
<th>Years</th>
<th>Exchange Rate</th>
<th>GDP</th>
<th>Inflation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3.17</td>
<td>5.3</td>
<td>3.0</td>
</tr>
<tr>
<td>2012</td>
<td>3.06</td>
<td>5.5</td>
<td>1.3</td>
</tr>
<tr>
<td>2013</td>
<td>3.28</td>
<td>4.7</td>
<td>3.2</td>
</tr>
<tr>
<td>2014</td>
<td>3.50</td>
<td>6.0</td>
<td>2.7</td>
</tr>
<tr>
<td>2015</td>
<td>4.29</td>
<td>5.0</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Table 2
Table 2 shows the variables indicators for market risk while Figure 2 shows the trend of the variables. Exchange rate is the price of a country's currency in terms of another country's currency. In this case, it is the price of Malaysian currency which is Ringgit (MYR) against USD. An exchange rate in this manner has two parts, the domestic currency and an foreign currency, and can be cited or quoted either specifically or in a roundabout way. In a direct quotation, the cost or price of a unit of foreign currency is communicated as far as the domestic currency. In an indirect quotation, the price of a unit of domestic or local currency is expressed in terms of the foreign currency. Based on Table 2 and Figure 2, the unemployment rate are decreased from 3.17 in year 2011 to 3.06 in year 2012. But the rate are slightly increased to 3.28 in year 2013 and continued the increased trend to 4.29 in year 2015.

The Gross Domestic Product (GDP) is one of the fundamental pointers used to gauge the soundness or well being of a nation's economy. It speaks to the aggregate dollar estimation of all goods and services delivered over a particular time that can be consider it as the size of the economy. More often than not, GDP is expressed as a correlation with the past quarter or year. Based on Table 2 and Figure 2, GDP rate are fluctuated every
year. GDP for year 2011 is 5.3 before its increased to 5.5 in 2012 and decreased to 4.7 in 2013. Then, the rate are increased to 6.0 in 2014 before its drop to 5.0 in 2015.

Inflation is the rate at which the general level of prices for goods and services is rising and, hence, the purchasing power of currency is falling. Central banks endeavor to point of limit inflation and maintain a strategic distance from deflation, with a specific end goal to keep the economy running easily. From the data stated in Table 2 and Figure 2, inflation rate also shows a fluctuated in value. The inflation rate in 2011 is 3.0 before it is decreased to 1.3 in 2011 and increased back to 3.2 in 2013. The rate drop to 2.7 in 2014 and remain unchange in 2015.

<table>
<thead>
<tr>
<th>Years</th>
<th>Return on Assets (ROA) (%)</th>
<th>Return on Equity (ROE) (%)</th>
<th>Net Interest Margin (NIM) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3.44%</td>
<td>37.70%</td>
<td>2.10%</td>
</tr>
<tr>
<td>2012</td>
<td>3.12%</td>
<td>35.36%</td>
<td>2.02%</td>
</tr>
<tr>
<td>2013</td>
<td>2.83%</td>
<td>33.21%</td>
<td>1.95%</td>
</tr>
<tr>
<td>2014</td>
<td>2.68%</td>
<td>29.50%</td>
<td>1.92%</td>
</tr>
<tr>
<td>2015</td>
<td>2.60%</td>
<td>28.13%</td>
<td>1.80%</td>
</tr>
</tbody>
</table>

Table 3
Table 3 shows the profitability ratio of CIMB Bank Berhad for the five years. The ratio include the value of Return on Assets (ROA), Return on Equity (ROE) and Net Interest Margin (NIM). While the graph in Figure 3 shows the trend of the ratio. Return on Asset (ROA) ratio is a profitability ratio that measures the net income created by total assets amid a period by contrasting net income with the average total assets. At the end of the day, the return on assets ratio or ROA measures how effectively an organization or company can deal with its assets to produce profit during some period. Based on the ratio in Table 3 and Figure 3, return on assets of CIMB are decreasing every year for the five year record from 3.44% in 2011 to 2.60% 2015. The lowest the return on assets, the lower the bank’s profitability. So, the higher the return on assets, the better is the bank’s profitability.

The Return on Equity ratio or ROE is likewise a productivity ratio that measures the capacity or ability of an organization to generate profit from its shareholders investment in the company. As such, the return on equity ratio demonstrates how much profit every dollar of common stockholders' equity generates. If we look at the Table 3 and Figure 3, return on equity of CIMB are also decreasing every year for the five year record from 37.70% in 2011 to 28.13% in 2015. For ROE, the lower the return gains, the lower the
profit gains. So, the higher the return gains, the better the management can pay higher dividends, gains profits and also support greater future growth.

Another regularly watched measure of bank performance is known as the Net Interest Margin (NIM), the different between interest income and interest expenses as a percentage of total assets. Net interest margin is effectiveness measures and also profitability measures. The percentage of net interest margin in Table 3 and Figure 3 for CIMB also shows a decreasing in value. Net interest margin is efficiency measures as well as profitability measures. CIMB Bank Berhad NIM are decrease from 2.10% in 2011 to 1.80% in 2015. This ratio shows that the bank’s profitability is decreasing because the higher the net interest margin, the higher bank performance to measure the probability.
4.0 DISCUSSION AND RECOMMENDATION

4.1 Discussion

According to Santomero (1997), credit risk arise from the non-performance of the borrower or the loan holder. It is either happened when the borrower is unable or unwillingness to pay back their loan. Data from Table 1 shows that the credit risk for CIMB decreases for the five year recorded. It is decrease from 0.0395 in 2011 to 0.0180 in 2015. This emphesis that the non-performing loan of CIMB is decreases. The percentage of customers or borrowers that are unable to pay back their loan are also decreases. As indicated by Santomero (1997), credit risk is diversifiable, yet it is hard to be wipe out totally. Cooper et. al. (2003) explained that loan is the major assets of a bank. Changes in the total loan will change also change the future health or performance of the bank. But, even when the total loans should always increase every year, the non-performing loan should decrease.

According to Armstrong and Caldwell (2008), liquidity risk management tries to guarantee a bank's capability to keep on performing bank main role that are involves the transformation of liquid deposit liabilities into illiquid assets such as loan. Bank are also in need to meet uncertain cash flow obligation. Bank ought to have enough cash or liquid assets out request to meet their clients require or need. A liquidity shortfall in a bank will reduce the confidence of the customers toward the bank and even can create a bank run over speculation. That is the ultimate reason why bank have to reduce their liquidity assets. From Table 1, liquidity risk of CIMB are also decreases from 0.1908 in 2011 to 0.0935 in 2015. Based on that data, CIMB are good in reducing their liquidity risk in order to gain customers trust even gain more customers in the future.

According to Santomero (1997), operational risk is arise with the problem in the operating like processing that cost some loss to the bank. This risk will cause a decrease in earnings due to unexpected operating expenses. From the data in Table 1, the value of operational risk is unstable. The operational risk for this
bank is fluctuated from year 2011 to year 2015. The value is increases from 0.6368 in 2011 to 0.7160 in 2013 before it is drop back to 0.6850 in the next year and increase back to 0.7086 in 2015. That shows that the expenses incurred by the bank are unstable every year.

According to Waemustafa and Sukri (2016), liquidity ratio are related to ROA which means that the Islamic banks can manage its liquidity problem by maintaining sufficient cash reserve and in the meantime these banks will have the capacity to generate income. Based on the ratio in Table 3, return on assets of CIMB are decreasing every year for the five year record from 3.44% in 2011 to 2.60% 2015. The lowest the return on assets, the lower the bank’s profitability. So, the higher the return on assets, the better is the bank’s profitability.

Ongore and Kusa (2013) clarify that ROE is the thing that the shareholders look as an end-result of their investment. A business that has high ROE will probably be one that is fit for generating cash internally. In this way, the higher the ROE the better the company's profit. ROE reflects how feasibly a bank management is using shareholder's assets or funds. In this manner, it can be concluded from the above explanation that the better the ROE the more compelling the management in using the shareholder's capital. Based on the data in Table 3, the ROE for CIMB are decreasing every year for the five year record from 37.70% in 2011 to 28.13% in 2015. This ratio shows that the CIMB’s management cannot utilize the shareholder’s funds efficiently.

According to Ongore and Kusa (2013), NIM measures the gap between the interest income the bank gets on credits and securities and interest cost of its borrowed funds. It reflects the cost of bank intermediation services and the proficiency or efficiency of the bank. The higher the NIM, the higher the bank's profit and the more stable the bank is. CIMB Bank Berhad NIM are decrease from 2.10% in 2011 to 1.80% in 2015. This shows that the profit of the bank are also decrease with the decrease of NIM percentage.
Table 4: Descriptive Statistics

Table 4 shows the descriptive statistics of dependent and bank specific variables for CIMB Bank Berhad from the year 2011 until year 2015. The mean for CIMB profit or ROA for the five years is 2.93% whereas the standard deviation is 0.35%. From that table, the mean for operational risk is higher that the other two risk. Operational Risk (OR) mean is 68.58% compared to 2.71% for Credit Risk (CR) and 13.92% for Liquidity Risk (LR).

In terms of salary or remuneration, CIMB standard deviation is very high. From the value in Table 4, CIMB pay their Executive Director in Board of Director with high salary compared to the Non-Executive’s salary. Beside that, the standard deviation for the three risk shows that the standard deviation for liquidity risk are higher that other risks.
Table 5: Correlations

Table 5 above shows the correlations between profit or ROA with other variables. From that table, it shows that Return on Asset (ROA) or profit is negatively related to index score, remuneration for non-executive director, bank size, Operational Risk (OR) and also exchange rate. The index score are negative to ROA, because the board are less effective. For the remuneration, the value shows that, the more profit the bank make, the less salary they paid to the non-executive. Then, for executive director, Table 5 shows that, the more profit bank make, the more salary they will pay to the executive director.

Furthermore, leverage ratio shows a positive relation to the ROA. This is means that, the more profit the bank make, the more debt the bank will have. In other words, the more profit the bank make, the more money the bank have to borrow. Then, from the table above, we can see that Credit Risk (CR), Liquidity Risk...
(LR), Retun on Equity (ROE) and Net Interest Marggin are also shows a positive
 correlation with ROA.

Beside that, the Gross Domestic Product (GDP) shows another indicator. The
 value is positive, means that, the higher the economic growth, the higher the profit
 CIMB can make. Compared to exchange rate that are negatively correlated with
 ROA because if the exchange rate for Ringgit Malaysia (RM) against USD are
 weaken, the profit or ROA will be decreased. From Table 5, it can be concluded
 that, only three variables that are significantly related to the profit which is
 remuneration for executive director, leverage and GDP. Even though the
 movement is positive and negative, but only three variable relevent in term of
 relationship.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.996</td>
<td>.991</td>
<td>.988</td>
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</tr>
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<td>1</td>
<td>1.000</td>
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</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Credit Risk
b. Predictors: (Constant), Credit Risk, Index score
c. Dependent Variable: ROA

Table 6: Model Summary

Table 6 above shows the model summary. Model summary will able to explain
about profit. Using data of adjusted R Square is the most accurated because its
remove many uncertainty. From the table above, the most higher number between
R, R Square and Adjusted R Square is R with 0.996. But, people usually use R
Square to explain about this model than R because R Square is between the R and
Adjusted R Square. From the value in Table 6, the model is relevent and
significant.
Table 7: Coefficients

Table 7 shows the coefficients value based on the dependent variable which is Return on Asset (ROA). In coefficients table, there is three important elements which is the value of Beta, t and sig. From Table 7, we can see that only to variable relevant to the ROA which is the credit risk and index score. Based on the value in the coefficient table, if profit increased, the less effective is the bank corporate governance. The t value is explain about the impact. The bigger the number or value, the bigger the impact. From Table 7, it can be said that, credit risk give the biggest impact to the bank profit. The reason is because, most of bank total assets is from loan. Loan itself will involved credit risk or default risk.

4.2 Recommendation

The assessment of credit rating keeps on being a loose procedure. After some time, this approach should be standardized across borrowers and institution. Then, its rating procedures should be made perfect with rating frameworks somewhere else in the capital market. Credit losses, as of now enigmatically identified with credit rating, should be firmly followed. As in the bond or security market, credit pricing, credit rating and expected loss ought to be demonstrably closed. Notwithstanding, the industry as of now does not have an adequately expansive information base on which to play out the migration analysis that has been examined in the bond market.
Furthermore, in the event that liquidity risk is to be dealt or managed with, the price of illiquidity must be characterized and incorporated with illiquid positions. While this rationale has been embraced by a few establishments, this pricing of liquidity is not common place. The regulators of financial companies and banks are requesting a far more noteworthy level of knowledge and awareness by executives about the risks they oversee, and the viability of the controls they have set up to lessen or mitigate this risks. Facilitate, compliance regulation, similar to Basel II, command an emphasis on operational risks, driving financial organizations to recognize, measure, assess, control and deal with this type of risks.

Nowadays, catch up with the new technology is very important for the bank to be more competitive. For some banks, their way to deal with purchasing another technology or system is to make new procedures that adjust to the way the technology stage works. Be that as it may, this approach is harming bank's productivity or efficiency ratio instead of helping it. Before you embrace another technology stage, first audit your influenced end-to-end procedures to guarantee the new technology or system really enhances your banking operations, as opposed to simply adding to them. This will helps to increases bank efficiency.
5.0 CONCLUSION

Risk is the essential driver of vulnerability in any organization. In this way, organizations progressively concentrate more on recognizing or identifying risks and overseeing them before they even influence the business. The capability to oversee risks will help organizations act all the more unhesitatingly on future business choices. Their insight into the risks they are confronting will give them different choices on the best way to manage potential issues. Risk evasion includes lessening the odds of eccentric misfortunes by eliminating risks that are unnecessary to the establishment's business reason. Basic risk evasion exercises are guaranteeing norms, supports or resource obligation matches, broadening, reinsurance or syndication, and due determination examination. The objective is to free the firm of risks that are unessential to the financial services gave or to assimilate just an ideal amount of a specific risk. What remains is some part of systematic risk and the risks that are one of a kind to a company's business establishment. In both, risk mitigation is deficient and can be improved. for example, in operational risk, bank can address the risks of providing services including misrepresentation, oversight disappointment, absence of control, and administrative impediments. aggressive risk evasion exercises in both these areas will oblige risk, while decreasing the profitability from the business activities. Likewise, the firm can convey the level of exertion it makes to decrease these risk to shareholders and legitimize the expenses or costs.

Performance analysis is an important tool utilized by different agents operating either inside the bank or who form some part of the bank's external operating environment. Performance estimations play an essential part in understanding the determinants of effective performance of firms like banks. Managerial performance measures in light of accomplishing these vital objectives ought to be produced to supplant the current emphasis on short-term financial performance measures. Performance measures can assume the key part in starting or actualizing mechanical advancements and hierarchical change through incentives for enhancing performance and estimations to assess advance toward this objective. Calculate ROA, ROE and NIM is an accounting approach of measuring bank performance.
REFERENCE


