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# A case study on the risk management of Islamic banks in Malaysia

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### Abstract

The aim of the study is to investigate the risk management of Islamic banks in Malaysia via quantitative comparative methods like by using the return on average assets (ROAA) and return on average equity (ROAE) analyses. As a result, the Maybank Islamic Berhad performance was exceptionally well during 2011 to 2016 except 2011. In conclusion, in comparison to Industry average figure Maybank performed better than overall Islamic banking industry in Malaysia. On the risk side, Maybank Islamic remains at lower risk during this period.

Key words: risk management, Islamic banks, Malaysia.

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# Un estudio de caso sobre la gestión de riesgos de los bancos islámicos en Malasia

### Resumen

El objetivo del estudio es investigar la gestión de riesgos de los bancos islámicos en Malasia a través de métodos cuantitativos comparativos, mediante el uso de los análisis de rendimiento de activos promedio (ROAA) y rendimiento de capital promedio (ROAE). Como resultado, el desempeño de Maybank Islamic Berhad fue excepcionalmente bueno entre 2011 y 2016, excepto en 2011. En conclusión, en comparación con la cifra promedio de la industria, Maybank obtuvo mejores resultados que la industria bancaria islámica en general en Malasia. Por el lado del riesgo, Maybank Islamic permanece en menor riesgo durante este período.

Palabras clave: gestión de riesgos, bancos islámicos, Malasia.

### 1. INTRODUCTION

The objective of calculating and analyzing financial ratios is to review the business condition and standing of a specific company in that industry (Aghimien et al., 2018). Financial ratios provide information by which users of this information can compare the financial position of the company. On the other hand, the financial reports do not provide enough information to compare it with other companies in the industry. The users who require the financial information of the company include management, shareholders, debtor, credit rating agencies, etc (Graham and Harvery, 2001). The purpose of this report is to analyze the financial position of the Maybank Islamic Berhad not only analyzing its financial ratios but also comparing it with the industry average of 19 Malaysian

Islamic banks for the period 2011 to 2016. The rest of the study is organized as follows. The second section will discuss the benefits and limitation of the ratio analysis both in general and specific to the banking industry. The third chapter shed light on the possible risk factors in the banking industry. The fourth section then analyzes the financial ratios of Maybank Islamic Berhad and compare it with the industry average of 19 Islamic banks of Malaysia. The conclusion is provided at the end of the study.

### 2. LITERATURE REVIEW

The financial information provided in the financial statements are just number which does not provide the true information to find the growth prospects and its position in the industry (Hadi et al., 2018). Therefore, the major benefit of financial ratios is to simplify the information and examine performance among different years. It provides trend information of the company for comparing a single company over a period and comparing the company's position with competitors and the overall industry (Hussain, 2014). Ratio analysis is a health test for a firm in which it analyzes the health of the firms. Financial ratios indicate information related to the earning capacity, company's borrowing capacity, liquidity situation, capacity to meet obligations, working capital management, etc (Abdulhadi et al., 2018). This study uses the financial ratios of Maybank Islamic and then compares it with the overall Islamic bank industry in Malaysia. This information provides benefits to the internal vs. external users of the company. The internal users include

Management, employees, and owners of the company while the external users of the financial information include the debtors, credit rating agencies customers and other society members who are directly or indirectly affected by the company (Hassan and Kayed, 2009).

The internal users of the company can assess the financial information in different ways. At first, the management of the company uses the financial information to analyse the firm's performance and take appropriate measure for further improvement (Asad et al., 2018). Secondly, employees use the profitability and growths prospects of the company which will affect their job security and growth in their remuneration (Haseeb, 2018). Thirdly the owners of the company who has a major concern in the company analyse the profitability and overall performance of the firm and take actions for improvement if required (Guney and Iqbalhussain, 2009). The external or secondary users of the financial information of a company include its creditor who analyzes the worthiness and repute of the company in the industry. Creditors make the terms of credits for the company according to its prior history (Kamarudin et al., 2018). Other external users include tax authorities, investors, customers who use financial information in their way (Loong et al., 2017).

### 3. LIMITATION OF FINANCIAL RATIOS

Despite financial ratios provide some advantages for comparing performance with competitors as well as overall industry, yet there is some limitation by which the information provided do not provide an exact comparison. Firstly, companies perform in their specific conditions which include their regulatory environment, market structure, etc (Shawtari et al., 2016). These factors are important for determining the performance concerning the environment the financial ratios do not provide any of such comparison. Secondly, the accounting standards and financial policies of the company for calculating same things vary from company to company which does not provide a true comparison (Guney and Iqbalhussain, 2010). Therefore, the financial ratios are not much useful. Thirdly, ratio analysis compares the current and past position of the company while most of the users are concerned with current and future information of the company. Fourthly, the comparison is difficult when different accounting definitions used for the terms operating profit, gross profit, and net profit, etc (Ali et al., 2016).

Fourthly, financial ratios calculation made by information provided in the financial reports of the company, financial statements are easily window-dressed or fudged to hide the facts. Ratio analysis has nothing to detect such misappropriations, therefore if ratios calculated from wrong information in financial reports it provides wrong information. Fifthly, ratio analysis only provides a comparison of quantitative information of a company; it does not provide any qualitative comparison with its competitors.

# 3.1. Risks in Banking Industry

The financial industry is the largest and most liquid in the world. The banking industry focused on risk management issues after the global financial crisis of 2007-08. The problem is managing the long-term as

well as day to day risks. Banking industry comes across eight types of risks in their day to day operations here this study focus on five main types of risks the banking industry encounter.

### 3.2. Credit risk

Credits risk relates to the bank borrowers who failed to meet their obligations according to the agreed terms. Credit risk linked with the loans, financial futures, foreign exchange transactions, settlement of transactions and guarantees. Simply speaking risk related to the borrowers when they do not repay back the loan because of their losses, inadequate income, etc. Banks also face credit risk if a customer does not pay their credit card bill. Therefore, to minimize the credit risk bank increase their interest rates from a borrower who is accompanying with high credit risk. If one party settled the transaction at their end but delays happen on the other end, then it may create a loss of investment opportunities.

### 3.3. Market risk

The second type of risk banking industry encounter is the market risk. The risk of losing bank's trading because of changes in equity prices, credit spreads, commodity prices, foreign exchange rates, interest rates and other indicators which set the market prices. Banks which are involved more in investment banking are more associated with the market risk. Market risk further is classified into four types which are interest rate risk, equity risk, currency risk and commodity risk.

# 3.4. Operational risk

The risk associated with operations of the bank is said to be an operational risk. Operational risk is the risk associated with the loss incurred due to inadequate internal failure process, system or people or external events. Operational risk classified as a human risk, process risk, and IT/system risk. Operational risk may not seem too bad but it. One of the biggest banks in Britain closed down because they were not able to shift themselves to latest information technology systems which automate their process. Therefore, this risk should be taken into consideration for the bank. The branch which takes care of customer data possibly includes the operational risk. Some hackers steal the customer's data also the type of operational losses.

### 3.5. Liquidity risk

The risk stemming from the death of marketability in an investment which makes the bank incur losses. In other words, the liquidity defines the risk in which the bank is not able to do their day to day cash transactions (Iqbal-Hussain et al., 2015). During the global financial crisis of 2007-08, many banks were not able to pay to their investor's leads them to take over by the government is a practical example of liquidity risk. Another example includes a person went to the bank to withdraw money. There the bank said temporarily they do not have cash, this is said to be a liquidity risk. Bankruptcy risk is one of the major risks if it goes severe, can lead the bank to take over by the government or another bank.

# 3.6. Capital adequacy risk (CAR)

Capital adequacy ratio (CAR) measure the bank's capital, CAR calculated as a percentage of bank's credit exposure toward risk. Capital adequacy ratio also called capital-to risk weighted assets ratio (CRAR). CAR is used to promote stability, protect depositors and promote the efficiency of the bank's financial system. If the CAR is minimum could be critical as it provides security for the overall loses to the bank. If a bank has less CAR and it is going to wind up its business, then the depositors may have losses as it does not have enough capital to settle those obligations. Thus depositors look this ratio as if a bank has higher CAR then the depositor's money protected.

# 3.7. Financial analysis of Maybank Islamic

Maybank Islamic Berhad, a subsidiary of Maybank is the largest Islamic banking player in the Asia Pacific region. It aims to meet the challenging developments in the Islamic Banking world and will certainly meet the Islamic financial needs of the customer with its wide range of products and services. This section of the study shed light on the performance and other risks factors critical for the Maybank (Ahmed and Khan, 2007). For the comparison purpose, this study includes industry average.

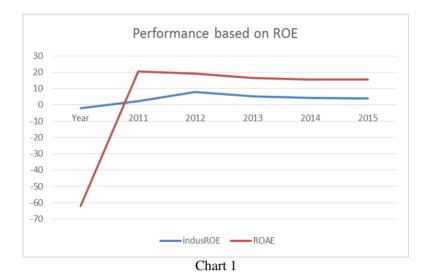
### 3.8. Performance

Most of the studies compare performance by using the return on average assets (ROAA) and return on average equity (ROAE). Therefore, this study includes both of these measures to analyse the performance of Maybank Islamic and comparing it with the industry average (Samad and Hassan, 1999).

Table 1. Maybank Performance Industry ROE is Industry average of return on equity of 19 Islamic banks, Industrious is Industry average of return on average assets of 19 Islamic banks, while ROAE and ROAA is a return on average equity and return on average asset for Maybank only

Year	Industry ROE	ROAE	Industrious	ROAA
	-	(Maybank)		(Maybank)
2011	-2.106	-61.834	-0.260	-3.566
2012	2.179	20.465	0.152	1.071
2013	8.019	19.105	0.624	0.969
2014	5.231	16.421	0.339	0.858
2015	4.423	15.64	0.326	0.828
2016	3.903	15.405	0.056	0.791

Table 1 and Chart 1 & 2 compares the performance (ROAE & ROAA) of Maybank Islamic from 2011-2016. The table explains that during the year 2011 the financial performance of the Maybank Islamic was very poor both in comparison to its performance in other years and also in comparison to the industry average. While from the year 2012 to 2016 the performance was impressive though there was fluctuation over the years, overall performance was consistently higher than the industry average.



Performance based on ROA

2
1
0
Year 2011 2012 2013 2014 2015
-1
-2
-3
-4
-indusROA ROAA

Chart 2.

3.9. Credit risk

Credits risk relates to the bank borrowers who failed to meet their obligations according to the agreed terms (Hassan, 2009). The higher Credit risk explains that borrowers of the bank may not be able to repay

their loans and the banks may incur a loss on their loan or bank may have to bear loss on their interest rate (Alaeddin et al., 2018). The comparison of Maybank with the industry average explained in Table 2 and Chart 3 during the year 2013 to 2016. Overall the figure show's mixed trend. Maybank remained at higher Credit risk than overall industry average during the year 2013 & 2014 while the gap show's Maybank becomes more secured than overall industry and the gap is increased in the year 2016.

Table2: Credit risk Credit risk (Credit risk weight average/total Risk weighted average) for Maybank and Industry average of credit risk (Industry credit risk) the overall industry average

Year	Credit risk	Industry credit risk
2013	91.14	91.00
2014	91.73	90.66
2015	90.26	91.92
2016	89.40	91.65

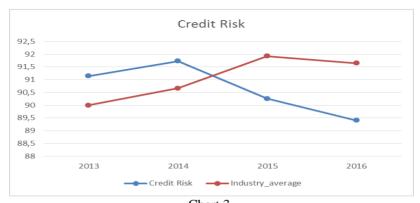


Chart 3

### 3 10 Market risk

The risk of losing bank's trading because of changes in equity prices, credit spreads, commodity prices, foreign exchange rates, interest rates and other indicators which set the market prices. This study discusses the market risk regarding equity risk and interest rate risk.

Table3. Market risk Net\_inter is the interest coverage ratio for Maybank and Inus\_int is the industry average of interest coverage ratio, while Equity\_TA is the total equity divided by total Assets for Maybank while Indus equal is the Industry average of equity/TA

mads_equals the madsury average or equity/171				
Year	Net_inter	Indus_int	Equity_TA	Indus_eqtta
	(Maybank)		(Maybank)	
2011	12.91	13.06856	5.552	8.917158
2012	3.144	4.437438	4.971	8.980526
2013	2.531	4.421222	5.146	9.187684
2014	2.485	3.973833	5.303	10.1249
2015	2.637	4.096412	5.287	9.080833
2016	2.768	4.156833	4.999	10.82868

Table 3, Chart 4 & 5 explain the overall market risk a Maybank has regarding interest coverage ratio and equity risk. Charts and tables explain that Maybank remains at lower risk level than the industry average. The table and chart explain that the industry average for interest coverage ratio was higher than Maybank's ratio while equity to total assets ratio was lower for Maybank explaining that Maybank is less financed by equity and has lower exposure to the market risk than the overall industry average during the year 2011-2016.

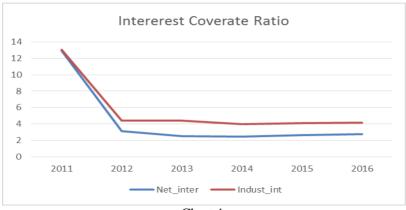


Chart 4

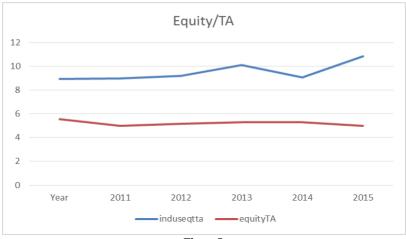


Chart 5

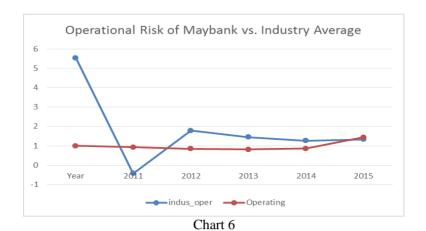
# 3.11. Operational risk

The risk associated with operations of the bank is said to be an operational risk. This study uses non-interest expense/average assets a measure of operational risk (Ismal, 2010). Table 4 and Chart 6 explain

that Maybank's Operational risk during the period 2011-2016. The figures explain that except 2011 Maybank remains at lower risk than the overall industry average. Moreover, during this time, the operational risk of Maybank show's decreasing trend except 2016.

Table 4. Operational Risk Here Operating is non-interest expense/average assets for Maybank while Indus\_Oper is the industry average for the

	Bullic	
Year	Indus_oper	Operating
2011	5.538	0.997
2012	-0.427	0.922
2013	1.783	0.847
2014	1.446	0.807
2015	1.260	0.854
2016	1.333	1.441



# 3.12. Capital adequacy ratio

Capital adequacy ratio (CAR) measure the bank's capital, CAR calculated as a percentage of bank's credit exposure toward risk

(Abuhussain and Alajmi, 2012). Capital adequacy ratio also called capital-to risk weighted assets ratio (CRAR) (Koehn and Santomero, 1980). Table 5 and Chart 7 provides the figures for capital adequacy ratio which explain that Maybank remains lower in this risk but overall its trend is increasing from 2013 to 2016, but in comparison to industry average the figure remains lower for Maybank Islamic. Therefore, Maybank Islamic remains lower in taking this risk.

Table 5: Capital adequacy ratio Captratio is the capital adequacy ratio for Maybank while Indus\_captratio define the average industry figure

Year	Indus_captratio	captratio
2013	16.94833	13.711
2014	20.03724	16.088
2015	17.75541	16.489
2016	21.87976	18.553

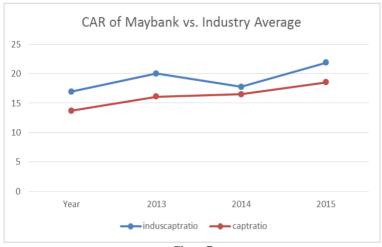


Chart 7

### 4. CONCLUSION

Maybank is one of the leading Islamic banks in Malaysia. This study aims to compare the financial performance, the market risk, credit risk, operational risk and capital adequacy risk of the Maybank from the year 2011 to 2016. Overall the results explain that the Maybank Islamic Berhad performance was exceptionally well during this period except 2011. In comparison to Industry average figure Maybank performed better than overall Islamic banking industry in Malaysia. On the risk side, Maybank Islamic remains at lower risk during this period. Moreover, all the risk figures also provide information that Maybank remained at lower risk than the industry average of 19 Islamic banks in Malaysia. Therefore, Maybank Islamic remains at the strong position during the period from 2011-2016.

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