AN ANALYSIS ON FIXED DEPOSIT PROFIT RATE AND INTEREST RATE BETWEEN ISLAMIC AND CONVENTIONAL BANKS AND THE EFFECTS TO BANK'S PERFORMANCE

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ABSTRACT

This study evaluates the Malaysian fixed deposit profit rate offered by Islamic banking with fixed deposit interest rate offered by conventional bank for the period of 2002-2006. The performance of the banks was monitored to determine the effects of fixed deposit profit rate and fixed deposit interest rate to the bank's performance. To analyze the performance of banks, secondary data are gathered from the analysis of banks' annual report and Thompson DataStream for the performance proxies such as net profit margin (NPM), return on equity (ROE) and return on invested capital (ROIC). The regression result found that there is a strong relationship between the bank's performances with their fixed deposits offered over the five years period. The results also indicates that the performance of conventional bank is out performs the Islamic bank. The study recommended that the bank could improve their profitability's performance with an improvement in fixed deposit rate offered to their customers in order to be competitive in the era of global world.

Fixed deposit profit rate, fixed deposit interest rate, net profit Keyword: margin, return on equity, return on invested capital.

INTRODUCTION

The emergence of Islamic banking is often related to the revival of Islam and the desire of Muslims to live all aspects of their life in accordance with the teachings of Islam. In addition, the interest free banks were established to comply with Islamic law which prohibits interest in all types of transactions including the agricultural, commercial, and industrial and also in their depository activities. The principles were outlined in the Holy Quran and the Sunnah of Prophet Muhammad prohibiting the captivating and receipts of interest (riba) in trade and commercial permissible. The elimination of riba leads to the establishment of Islamic banking. In Malaysia, Islamic banking was first established in 1983 with the formation of Bank Islam Malaysia Pte. (BIMB), the operation of which governed by the Islamic Banking Act 1985 (Rosly and Abu Bakar, 2003). The introducing of Bank Islam to the economy makes the banking system unique. The banking approach in Malaysia is the dual banking system where the non interest based of Islamic banking operates together the interest based of conventional banking system. The opportunity to practice Islamic Banking is given to all the commercial banks, merchant banks and finance companies provided that they have (1) to established an interest-free banking unit at the parent bank at the parent bank and (2) to create an maintained an interest freebanking fund (Ahmad 2006).

The similarities between Islamic and conventional banking is the sources of funds where both depends on depositor's money by offering numerous depository schemes such as current account, saving account and investment account. The distinguishing feature in Islamic and conventional banking system lies in the investment accounts. Unlike the conventional banks, which offers fixed or term deposits at fixed interest rate, the Islamic banks' investment accounts have no fixed rate of return but have profit sharing ratio agreed between bank and the depositors. According to Hossoune (2002) that the profit and loss sharing (PLS) principle of Islamic finance is also applicable to Islamic bank depositors where the depositors save in "investment accounts", with variable returns depending on the bank's profitability. At the end of the period, an Islamic bank has to share its "profits" with the depositors who shared the "investment risk."

The study on Islamic banking has attracted the interest of a number of researchers in the past such as (Haron et.al, 2006; Rosly and Abu Bakar, 2003; Hossoune, 2002; Abd Aziz, 1986). However, only a small number of studies are devoted on profit rate and interest of both bank (Kaleem and Md Isa, 2003; Haron and Norafifah, 2002). No research is done to compare of fixed deposit rate between the Islamic and conventional banking in relation to their performance. Thus this study is undertaken (1) to examine the effect of fixed deposit profit and interest rate offered by Islamic and conventional banking system in term of profitability and; (2) to analyzed the relationship between fixed deposit profit rate versus interest rate and the profitability of Islamic and conventional banking system.

LITERATURE REVIEW

A review of the literature established an ideal reference source of materials and research writings concerning Islamic Banking. Earlier study done by Abd Aziz (1986), pointed out that the operating model of Islamic banking does not differ much from the conventional banking on the sources of funds side. He found that the main difference being that in place of fixed or time deposits, Islamic banks offer to accept investment account deposits on profit sharing terms based on principles of mudharabah and musharakah. All deposit are made on the basis of an agreement (aqad), between depositors and bank specifying term on which the funds are placed, the general or specific uses of such funds and the term of profit sharing arrangement between the depositor and banks. He stated that for Islamic banks, the return to its investments is uncertain, subject to the risk and not predetermined or guaranteed.

Haron et al (2006) investigates the structure determinants of deposits level of commercial banks in Malaysia by using the cointegration technique. They found that fixed deposit of conventional bank has a positive relationship with the rates of return of Islamic bank investment deposits because movement in the rates of return of Islamic banks tends to lag behind that of interest rate of conventional bank. Previous study done by Haron and Norafifah (2002) found out that there is a negative relationships between the interest rates of conventional banking schemes in Malaysia with total interest free deposits. By using the Adaptive Expectation Model and covered the period from January 1984 to December 1999 on a monthly basis they conclude that the depositors of Islamic saving and investment account facilities are guided by the profit motive. Kaleem and Md Isa (2003) had used unit-root test and Granger causality test to determining the Islamic and conventional deposit returns linkages which covers the period from January 1984 to December 2002. They found that the conventional TDRs

Granger cause Islamic TDRs in all categories and there is significant competition between Islamic and conventional TDRs. They conclude that Islamic banking considers interest rates before adjusting its deposits returns.

Generally, the financial performance of banks and other financial institutions has been measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies. Rosly and Abu Bakar (2003) examined the performance of Islamic and conventional banks in Malaysia by using the financial ratio analysis from year 1996-1999. They compare the profitability performance of selected IBS and mainstreams operations in commercial banks and finance company. The study found that Islamic banking scheme (IBS) banks have recorded higher return on asset as they are able to utilize existing overheads carried by conventional banks. Similar to the study done by Samad and Hassan (1999) that found BIMB is more liquid and less risky that conventional bank. While Metwally (1997) had used logit, probit and discriminant analysis to test for structural differences between the financial characteristics of interest-free banks and conventional banks. Its evaluate performances which are: liquidity, leverage, credit risk, profitability and efficiency. The study found that that the two groups of banks may be differentiated in terms of liquidity, leverage and credit risk, but not in terms of profitability and efficiency. His study conclude that Interest-free banks face more difficulties in attracting deposits than interest-based banks and both banks offer their depositors similar returns.

METHODOLOGY AND DATA

Data was collected from three commercial banks that adopt the Islamic banking system and three conventional banks. This sample selection consists of Bank Islam Malaysia Berhad, Bumiputera Commerce Bank, Ambank Berhad and other three commercial banks namely RHB Bank, Public Bank and Malayan Banking that was selected randomly from the list of banking institutions. Then, the profitability and performance of the bank are analyzed using the annual report of the banks over five year's period, starting from year 2002 until 2006.

The financial ratio analysis will be used to represent the performance of Islamic and conventional banks. According to Rosly and Abu Bakar (2003), financial ratio analysis could be used to asses the financial strengths and weakness of the firm using the information founds in its financial statement. Financial ratios also able to provide broader understanding of the bank's financial condition since they are constructed from accounting data contained on the bank's balance sheet and financial statement, Hassan and M. Bashir (2003). Thus, for this study, the financial ratios used are i) Net Profit Margin (NPM); ii) Return on Equity (ROE) and iii) Return on Invested Capital (ROIC)

The descriptive data for the three ratios are collected from the Thompson Data Stream Software and bank's annual report. However, the rates of fixed deposit for one month (1M), three months (3M), six months (6M), nine months (9M) and twelve months (12M) were collected for over this five year period from 2002 to 2006 from the Personal Money Magazine.

The method of regression analysis was used in this study to test the relationship between banks' profitability performance and the banks' fixed deposit rate. A regression model is representing by:

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NPM = \alpha + \beta_1(1M) + \beta_2(3M) + \beta_3(6M) + \beta_4(9M) + \beta_5(12M) + \epsilon

ROE = \alpha + \beta_1(1M) + \beta_2(3M) + \beta_3(6M) + \beta_4(9M) + \beta_5(12M) + \epsilon

ROIC = \alpha + \beta_1(1M) + \beta_2(3M) + \beta_3(6M) + \beta_4(9M) + \beta_5(12M) + \epsilon
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Where,

NPM = Net Profit Margin

ROE = Return on Equity

ROIC = Return on Invested Capital

 α = Constant

 β = Regression Coefficient

1M = One Month of Conventional Fixed Deposit Interest Rate and Islamic Profit Rate

3M = Three Month of Conventional Fixed Deposit Interest Rate and Islamic Profit Rate

6M = Six Month of Conventional Fixed Deposit Interest Rate and Islamic Profit Rate

9M = Nine Month of Conventional Fixed Deposit Interest Rate and Islamic Profit Rate

12M = Twelve Month of Conventional Fixed Deposit Interest Rate and Islamic Profit Rate

ε = Residual Term

The hypotheses of the study are developed to cater for the pooling regression

model as stated below:

Hypothesis 1

Ho: There is no relationship between NPM and the independent variables. Ha: There is a relationship between NPM and the independent variables.

Hypothesis 2

Ho: There is no relationship between ROE and the independent variables. Ha: There is a relationship between ROE and the independent variables.

Hypothesis 3

Ho: There is no relationship between ROIC and the independent variables. Ha: There is a relationship between ROIC and the independent variables.

FINDINGS AND DISCUSSIONS

An Analysis of the Fixed Deposit Profit Rate for Islamic Banks

Figure 1: The Performance of Fixed Deposit Profit Rate by Islamic Banks in 2002-2006

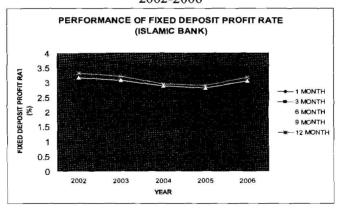


Table 1: The Profitability Performance of Islamic Bank

SUMMARY PROFITABILITY OF ISLAMIC BANK					
MEAD	PROFITABILITY				
YEAR	NPM	ROE	ROIC		
2002	8.83	4	2.69		
2003	-1.33	4.68	1.85		
2004	15.52	5.71	3.79		
2005	-6.54	-8.1	-3.28		
2006	-92.23	-132.41	-44.97		

From the figure 1 and table 1 above, it can be seen that the average fixed deposit rate of Islamic bank Berhad in one month, three months, six months, nine months and twelve months offered in 2002 are the highest rate when compared to the other year. There was an overwhelming evidence to say that when the profit rate of fixed deposit increase in 2002, it show a strong relationship and bring the effect of increasing in ROE, NPM and ROIC in average for Islamic bank for that year. However, after year 2003 onwards there are tremendous declined in NPM, ROE and ROIC due to declining in the rate of fixed deposit. Islamic banking did not achieve the target due to the declining of their profit rate of fixed deposit and they do not performed well in managing their fixed deposit. It was supported by Haron (2006) where he stated the movements in rate of return of Islamic banks tend to leg behind the interest rate of conventional banks. Moreover, there is a tremendous declined in year 2006 to the negative value of NPM, ROE, and ROIC. The lowest of fixed deposit rate offered for one month duration in year 2005 which the average rate of 2.72%. The highest fixed deposit rate offered by Islamic banking is in year 2002 with the average rate of 3.8% in the twelve months duration.

An Analysis of the Fixed Deposit Interest Rate for Conventional Banks

Figure 2: The Performance of Fixed Deposit Interest Rate by Conventional Banks in 2002-2006

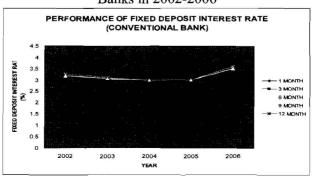


Table 2.	The Fromability	y remormance of C	onventional banks			
SUMMARY PROFITABILITY OF CONVENTIONAL BANK						
VEAD	PROFITABILITY					
YEAR -	NPM	ROE	ROIC			
2002	13.74	10.15	4.58			
2003	18.25	11.84	6.28			
2004	19.33	13.16	6.69			
2005	18.78	13.44	5.52			
2006	23.08	16.92	5 36			

Table 2: The Profitability Performance of Conventional Banks

Based on the figure 2 and table 2 above, it can be seen that the profitability of the conventional banks appears to be in a good performance from the year 2002 to 2003. The NPM, ROE and ROIC was increasing from year 2002 until 2006. The profitability had improved due to the higher rate of fixed deposit offered by banks. This suggests the more banks offered higher rate of fixed deposit, the better the performance of bank's profitability. Apparently, the customers of the bank keep their deposit over the maturity period and in a longer period which had resulted the good performance of bank's profitability. It seems that customers prefer the bank that offered higher interest rate for their fixed deposit. As a result from the higher fixed deposit rate, it has effect the performance. It also supported by Haron (2006) which he found the higher the rate of interest, the more money will saved for the depositors. Thus, customers will forgo for their present consumption. Overall, the higher average of fixed deposit rate offered by conventional banks is during year 2002 which the rate is at higher value of 3.97% for twelve months term. The lowest rate offered is in year 2004 with an average of 3% for one month, three months, six months and nine months.

An Analysis of the Relationship between NPM and Fixed Deposit Interest Rate of Islamic and Conventional Banks Over Five Years (2002 - 2006)

Based on Table 3, for the year 2002 there is a relationship between NPM and fixed deposit interest rate. Therefore, the null hypothesis can be rejected at the 10% level of significance and accept the alternative hypothesis. The R value indicates the model have a strong relationship of 99.6% while the value of R Square indicates a higher of 95.8% of the variation in NPM is explained by the in the performance of fixed deposit.

For the year 2003 there is no significant relationship between all the independent variable. Therefore, the null hypothesis will be accepted at this level. The R value indicates the model have a relationship with the higher value of 96.6%

	<u>1M</u> _			0.21	0.886
	3M			-0.152	0.886
2003	6M	0.966	0.933	-2.616	0.12
	9M		.	0.568	0.627
	12M			2.711	0.113
	1M			0.962	0.561
	3M			0.962	0.39
2004	6M	0.434	0.188	0.962	0.39
-	9M			-0.653	0.56
	12M			0.807	0.479
	1M		79100	6.567	0.003*
	3M			6.567	0.003*
2005	6M	0.973	0.947	0.638	0.589
	9M			-0.653	0.581
	12M			0.917	0.456
	1M		5 R = -	-1.039	0.488
	3M			0.962	0.512
2006	6M	0.967	0.935	-0.016	0.99
	9M			0.342	0.79
	12M			5.879	0.004*

[•] Significant is at $\leq 10\%$ level

An Analysis of the Relationship between ROE and Fixed Deposit Interest Rate of Islamic and Conventional Banks Over Five Years (2002-2006)

Based on table 4, for the year 2002, ROE is negatively related to 6M with the significant level of 0.094 and the T-Ratio indicates -6.709. Therefore, the null hypothesis will be rejected at this level. When the study analyzed the relationship between the variables, it shows a very strong relationship which indicates the value of 99.2%. The R-Square indicates 98.5% of the variance in ROE is explained by the performance of fixed deposit. So, the null hypothesis was rejected but alternative hypothesis was accepted at this 10% level of significance.

For the year 2003 it can be seen that none of the variables has significant relationship to the ROE. Therefore, the null hypothesis was accepted at this 10% level of significance. The R value indicates that the model has a strong relationship of 91.1% and higher value of R-Square indicates 83.1% is explained by the variation of the performance of fixed deposit. Thus, the alternative hypothesis was rejected at this level.

For the year 2004, there is no significant relationship between ROE and all the independent variables. Therefore, the null hypothesis was accepted at this level. The R value indicates the model has a relationship, but not strong enough with R-value of 41.9% and when we look at the R Square, it indicates 17.6% of the variation of ROE is explained by the performance of fixed deposits. There is strong evidence that the null hypothesis is true so that the null hypothesis was accepted at the 10% level of significance and the alternative hypothesis was rejected.

For year 2005, we can see that there is a relationship between ROE and fixed deposit and the ROE is positively related to 1M, 3M and 12M. It also found that there is strong relationship exist which R-value indicates 99.4% and the R-Square indicates a very higher value of 98.8%. It was explained by the variation of performance in fixed deposit. Thus, the null hypothesis was rejected at this 10% level of significance (1M, 3M and 12M only).

For year 2006, we can conclude that there is a relationship between ROE and all independent variables (Fixed Deposit). Both 1M and 9M are negatively related to ROE with the significant of IM is -1.039 and 9M is -0.077 and both T-Ratio of -6.024 and -865 respectively. Therefore, the null hypothesis was rejected at this level. Meanwhile, the R value indicates a higher of 80.7% and strong relationship which R-Square is higher at 65.2%. So, the alternative hypothesis was accepted at this 10% level of significant.

Table 4: The Results of Regression Analysis of ROE and All Independent Variables (2002-2006)

Years	Fixed	Model Summary		T-Ratio	P-Value
	Deposit (Variables)	R	R Square		
	1M			-2.376	0.254
	3M			4.108	0.152
2002	6M	0.992	0.985	-6.709	0.094*
	9M		_	5.145	0.122
	12M			0.735	0.503
	1M			0.63	0.563
	3M			0.63	0.563
2003	6M	0.911	0.831	-2.456	0.133
	9M			1.59	0.253
	12M			2.662	0.117

	1M			0.463	0.667
	3M			0.463	0.667
2004	6M	0.419(a)	0.176	0.463	0.667
	9M			-0.673	0.549
	12M			0.742	0.512
	1M			6.076	0.004*
	3M			6.076	0004*
2005	6M	0.994	0.988	0.554	0.636
	9M			-1.413	0.293
,	12M			3.611	0.069*
3000	1M			-6.024	-1.039*
	3M			4.496	0.962
2006	6M	0.807	0.652	2.836	0.295
	9M			-0.865	-0.077*
	12M			1.084	0.339

[•] Significant is at < 10% level

An Analysis of the Relationship between ROIC and Fixed Deposit Interest Rate of Islamic and Conventional Banks Over Five Years

Based on table 5, for the year 2002, none of the independent variables has significant relationship with ROIC in this year. Therefore, the null hypothesis was accepted at the 10% level of significance. The R value indicates the model have a strong relationship of 87.0% while the value of R Square indicates a higher of 75.6% of the variation in NPM is explained by the performance of fixed deposit. So, the alternative hypothesis was rejected because none of the P-Value has value less than 0.10 significant levels.

For the year 2003, it can be observed that there is no significant relationship between ROIC and all independent variable during this year. Thus, the null hypothesis will not be rejected at this 10% significant level. When the study analyzed the relationship between ROIC and all independent variables, the result show the strong relationship between the variables which it indicates 77.7% of R-Value. In addition, the R-Square indicates a higher of 60.4% and analyzed by variation performance of fixed deposits. Therefore, the null hypothesis was accepted because none of the P-Value has value less than 0.10 significant levels.

For the year 2004, none of the independent variables has significant towards the ROIC during that year. As a result, null hypothesis was accepted 10% significant level. The R-Value show there is a relationship exist which it indicates 46.1% but do not strong enough. Meanwhile, the R-Square resulted 21.3% is explained by the variation of fixed deposit. Therefore, the alternative hypothesis was rejected because none of the P-Value has value less than 0.10 significant levels.

For year 2005, we can see that there is a relationship between ROIC with 1M and 3M. Therefore, the null hypothesis was rejected at this 10% level of significance. Both 1M and 3M is positively related to ROIC with significant level of 0.001 and T- Ratio 9.7877. There is a very strong relationship with R value indicate 99.0% and R Square indicate 98.0% of variation in ROIC is explained by the variation in the performance of fixed deposit. So, the alternative hypothesis was accepted at this level only on 6M, 9M and 12M of fixed deposit.

For the year 2006, ROIC is positively related to 12M with the significant level of 0.000 and the T-Ratio indicates a higher of 20.281. But when the study analyzed the relationship between ROIC and all independent variables, its show the relationship between the variables is very strong, it's indicates a higher of 99.8%. The R-Square indicates 99.5% of the variance in ROIC is explained by the variation the performance of fixed deposit. So, the null hypothesis was rejected at this level (12M only). It's mean that the good performance of fixed deposit can help the bank to increase their profit and achieve their organizational goals.

Table 5: The Results of Regression Analysis of ROIC and All Independent Variables (2002-2006)

Years	Fixed Deposit (Variables)	Model Summary		T-Ratio	P-Value
		R	R Square		
	1M			0.645	0.636
	3M			-0.24	0.85
2002	6M	0.87	0.756	-0.681	0.619
	9M			0.819	0.563
	12M			0.889	0.424
	1M			0.439	0.683
	3M			0.439	0.683
2003	6M	0.777	0.604	-1.033	0.41
	9M			0.417	0.717

	12M			20.281	0.000*
	9M			1.179	0.448
2006	6M	0.998	0.995	-0.319	0.803
10	3M		_	0.962	0.512
	<u>1</u> M			-1.039	0.488
	12M			1.321	0.317
	9M			-0.595	0.612
2005	6M	0.99	0.98	0.729	0.542
	3M			9.787	0.001*
	1M			9.787	0.001*
	12M			0.6	0.591
	9M			-0.465	0.674
2004	6M	0.461	0.213	0.86	0.438
	3M			0.86	0.438
	1M			0.86	0.438
	12M			1.155	0.368

[•] Significant is at ≤ 10% level

CONCLUSION AND RECOMMENDATIONS

Conclusion

From this study, it can be concluded that the conventional banks are performing much better in their profitability performance when compared to the Islamic banks. As we can see from findings the conventional banking had offered a higher fixed deposit rate during year 2002 which the rate is at higher value of 3.97% for twelve months term. The lowest rate offered is in year 2004 with an average of 3%. It can be observed that the NPM, ROE and ROIC of the banks are in increasing over the five years and in a reasonably trend. It can be says that the higher the fixed deposit rate offered by bank, the better the performance of the banks. Customers also can benefit from that where they have an option to invest in fixed deposit with various terms and rate offered. The longer the period offered by banks, the more attractive rate are given. This result was supported by Haron (2006), where he stated that the higher the rate of interest, the more money will be saved. Thus, customers can forgo their present consumption. As compared to the conventional banks, the Islamic banks offered a higher of 3.8% profit rate of fixed deposits. As a result starting from year 2003 onwards, Islamic banks experienced a drop in their performance with the lowest average rate of 2.39% in 2006. It's NPM, ROE, and ROIC tremendously declined to

the negative trends. This was happened maybe because of less confidence level among customers to invest in the interest free deposits offered by Islamic Banks and at the same times less promotion from the banks on their fixed deposit profit rate offered. This argument was supported by study done by Metwally (1999) that Interest-free banks face more difficulties in attracting deposits than interest-based banks and further by Abdul Aziz (1986), as for Islamic banks, the return to its investment is uncertain which it subject to the risk and not predetermined or guaranteed.

Moreover the study also found that evidence was obtained indicating that, there is a relationship between the fixed deposit interest rate and the bank's profitability. From the analysis, it can be observed that in year 2002, 2005 and 2006, there is a relationship between the variables and net profit margin of the banks. In fact, the relationship seems to be strong relationship because the value of R is above 60%. Meanwhile, there is no relationship between net profit margin and variables in 2003 and 2004. However, the R value indicates a higher value which leads above 60%.

Furthermore, the study also found that there is a relationship between fixed deposit interest rate and return on equity. It can be seen that there is a relationship between the variables in 2002, 2005 and 2006. It shows a strong relationship with the R value which it is above 60%. In 2003 and 2004, there is no relationship between return on equity and the variables. However, the R value still indicates a strong relationship with R value is above 60%. As for Return on Invested Capital, there is no relationship between Return on Invested Capital in tear 2003, 2003 and 2004. Nevertheless, there is a strong relationship between variables in 2005 and 2006. The R value indicates a higher value which above 60%.

Recommendations

In view of the above conclusions, it can be recommended that the Islamic banking should improve their performance of profitability in term of NPM, ROE and ROIC. As we can see from the findings, Islamic banking had offered a lower fixed deposit rate as compared to the conventional banks. Customers more preferred the banks that offered higher interest rate in fixed deposit. With the higher interest rate of fixed deposit offers, they can gain a higher profit. Thus, it will highly recommended that the Islamic bank should boost their

performance by offering a higher fixed deposit interest rate in order to compete with the conventional bank.

Since there is a very strong relationship between net profit margin in year 2002, 2005 and 2006 with fixed deposit rate, both conventional and Islamic banking should maintain and keep up the relationship to boost their profit in the future. Same goes to the return on equity and return on invested capital. The banks should maintain a strong relationship in order to experience an increase in their profitability.

Finally, both Islamic and conventional banks should identify their strategy in order to attract more customers to use their product and services such as the fixed deposit or investment account. Their strategy maybe can focus more on the promotions in order to give a clear picture about the rate offered on fixed deposit to their customers. As for Islamic banks, even though the application of Islamic banking still new in Malaysia, they have to well prepared to face with globalization challenges specially in strategic management in order to manage the competition from the conventional banks.

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