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MEASURING THE PERFORMANCE OF PARTICIPATION BANKS BY TOPSIS METHOD: TURKEY AND MALAYSIA CASES

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In this study, it has been aimed to measure the financial performance of the participation banks operating in Turkey and Malaysia. For this purpose, 4 banks from Turkey and 11 banks from Malaysia were included in the analysis. The list of said participation banks are given in Table 2 below. Data required for the calculation of financial ratios, which will be used in the measurement of performance, of the banks were obtained from balance sheet and income statement of the banks included in the study. The financial ratios calculated were used as the evaluation factors in the multi-criteria decision-making method TOPSIS. Performance rating of the banks included within the scope of analysis was performed by TOPSIS method for the years of 2010, 2011, 2012 and 2013, respectively. Performance values of the banks were ranked from high to low and analyses were completed in this manner.

Keywords: Islamic banking, Participation banking, Performance analysis, TOPSIS.

Introduction

Islamic financial system, in other words interest-free finance system, is in a rapid growth by showing a successful performance in the last 10 years. This system provides sustainable welfare through facilitating access to financial instruments in the economic system by encouraging people/institutions, who wish to invest in a financial market with a fairer and more participatory and collaborative structure [1].

Today, interest-free banking system is a field of activity as an alternative to the traditional banking system around the globe [2]. As of 2013, the total value of assets of global Islamic financial system is $1.658 trillion with a total number of 993 Islamic financial institutions worldwide [3]. Figures show that popularity of Islamic financial system grows not only in Muslim countries, but also all over the world [4].

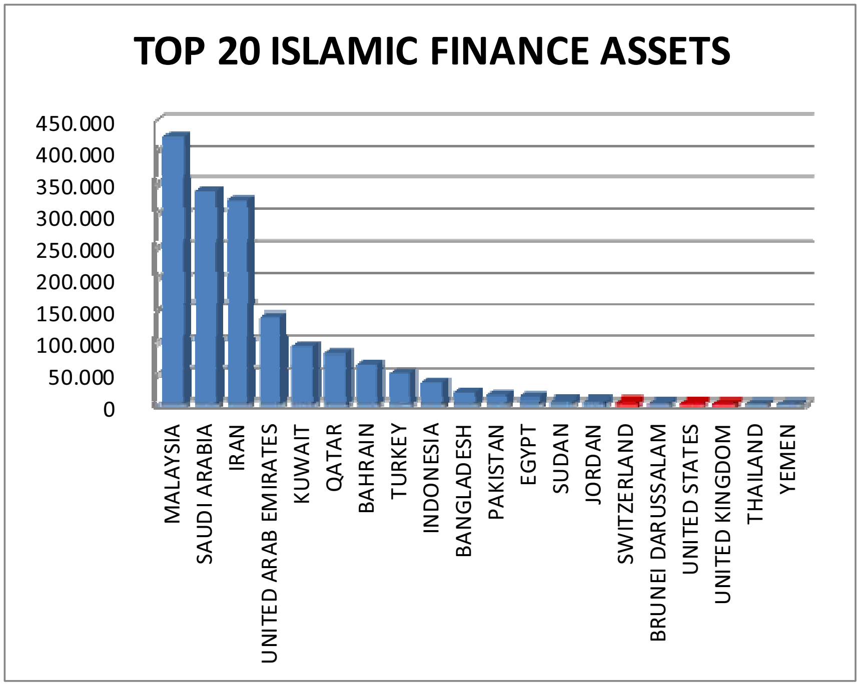


Figure 1. Top 20 Islamic Finance Assets

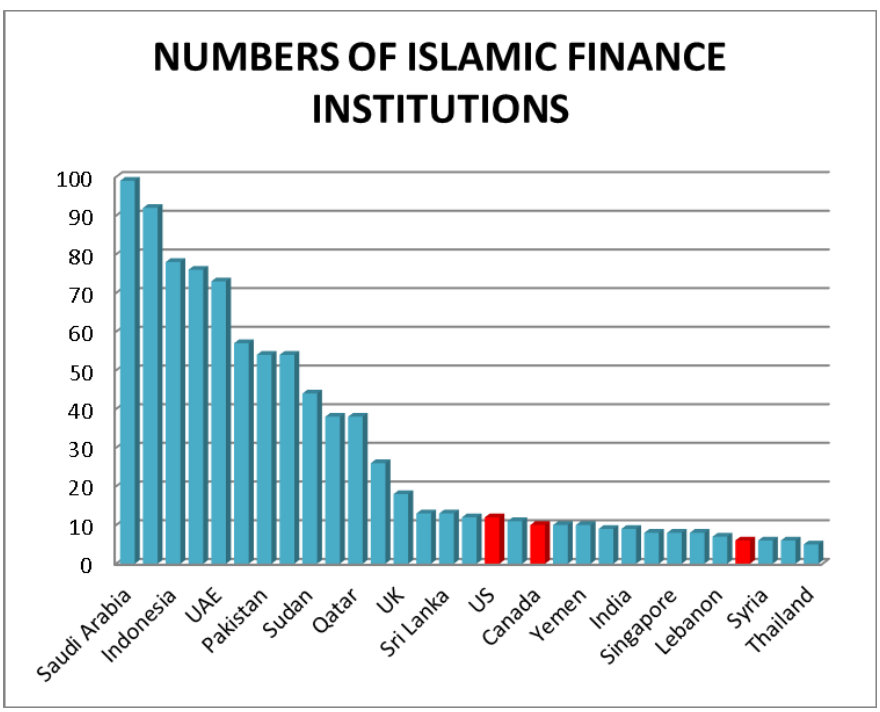


Figure 2. Numbers Of Islamic Finance Institutions

The key element of Islamic banking is not just the interest-free receipt and use of funds. One of the most important elements of Islamic banking or finance is the concept of profit- and loss-sharing. Based on the profit- and loss-sharing principles, there are various types of Islamic financial instruments available in the market. The financial instruments offered by participation banks to their customers are as follows [5];

-Murabaha –Mudaraba -Musharaka -Ijara
-Istisna -Salam-Takaful

Aim

In this study, it has been aimed to measure the financial performance of the participation banks. For this purpose, 4-year financial performance of 15 participation banks operating in Malaysia and Turkey has been measured by TOPSIS method, which is one of the multi-criteria decision-making methods, for the periods between 2010 and 2013.

Matherials and Method

In this study, it has been aimed to measure the financial performance of the participation banks operating in Turkey and Malaysia. For this purpose, 4 banks from Turkey and 11 banks from Malaysia were included in the analysis. The list of said participation banks are given in Table-1 below. Data required for the calculation of financial ratios, which will be used in the measurement of performance, of the banks were obtained from balance sheet and income statement of the banks included in the study. The financial ratios calculated were used as the evaluation factors in the multi-criteria decision-making method TOPSIS. Performance rating of the banks included within the scope of analysis was performed by TOPSIS method for the years of 2010, 2011, 2012 and 2013, respectively. Performance values of the banks were ranked from high to low and analyses were completed in this manner. In the study, 7 financial ratios were used to measure the performance of the participation banks. These ratios and information regarding studies performed performance measurement by using these ratios in the literature are given in Table-2.

Table 1. List of Banks

Malaysia	Turkey
Affin Islamic Bank Berhad	Albaraka Türk
Al Rajhi Banking & Investment Corporation (Malaysia) Berhad	Kuveyt Türk
Alliance Islamic Bank Berhad	Bank Asya
AmIslamic Bank Berhad	Türkiye Finans
Asian Finance Bank Berhad	
Bank Muamalat Malaysia Berhad	
HSBC Amanah Malaysia Berhad	
Kuwait Finance House (Malaysia) Berhad	
Maybank Islamic Berhad	
Public Islamic Bank Berhad	
Standard Chartered Saadiq Berhad	

Table 2. Ratios Used

Aim	The Ratio	Literature
Profit	Return On Assets	Doğan [6]
	Return On Equity	Yayar and Baykara [7]
Liquidity	Loans / Assets	Samad [4]
Debt Capacity	Total Liabilities/ Total Equity	Parlakkaya and Çürük [8]
	Total Liabilities / Total Assets	Faye, Triki [9]
	Loans / Deposits	Rosman, Wahab [10]
Share Capital	Total Equity / Total Assets	Fayed [11]

TOPSIS (Technique for Order of Preference by Similarity to Ideal Solution)

Stages of TOPSIS method are as follows [12];

Step 1 – Normalize the decision matrix.
Step 2 – Construct the weighted normalized decision matrix where we are the weights of criteria.
Step 3 – Determine the positive and negative ideal solution (PIS) and (NIS) for the weighted normalized decision matrix.
Step 4 – Calculation the separation measures.
Step 5 – Calculation of the relative closeness to the ideal solution where the CC_j^+ index value lies between 0 and 1.
Step 6 – Ranking the priority based on descending values of CC_j^+. The larger index value means better performance of the alternatives.

Results

Table 3. TOPSIS Result 2010 - 2013

2010		2011		2012		2013	
Banks	Raiting	Banks	Raiting	Banks	Raiting	Banks	Raiting
SC	0,722	PUBISLAMIC	0,623	PUBISLAMIC	0,676	ALBARAKA	0,668
PUBISLAMIC	0,361	TFINANS	0,612	ALBARAKA	0,671	BANKASYA	0,651
AMISLAMIC	0,335	HSBC	0,606	TFINANS	0,662	TFINANS	0,646
ALLIANCEISLAMIC	0,326	KVTURK	0,600	ALLIANCEISLAMIC	0,638	PUBISLAMIC	0,608
KFH	0,326	ALBARAKA	0,598	KVTURK	0,635	MAYBANK	0,594
TFINANS	0,325	BANKASYA	0,588	AMISLAMIC	0,597	HSBC	0,575
BANKASYA	0,319	AMISLAMIC	0,582	MAYBANK	0,590	KFH	0,570
ALBARAKA	0,317	ALLIANCEISLAMIC	0,568	HSBC	0,590	AMISLAMIC	0,561
AFFINISLAMIC	0,313	SC	0,566	SC	0,586	KVTURK	0,532
HSBC	0,312	MAYBANK	0,546	MUAMALAT	0,503	ALLIANCEISLAMIC	0,506
KVTURK	0,312	AFFINISLAMIC	0,539	KFH	0,484	MUAMALAT	0,467
ALRAJHI	0,274	ALRAJHI	0,522	BANKASYA	0,464	SC	0,454
MAYBANK	0,257	MUAMALAT	0,519	AFFINISLAMIC	0,356	ASIANFINANCE	0,350
ASIANFINANCE	0,236	ASIANFINANCE	0,518	ASIANFINANCE	0,316	AFFINISLAMIC	0,339
MUAMALAT	0,233	KFH	0,313	ALRAJHI	0,276	ALRAJHI	0,282

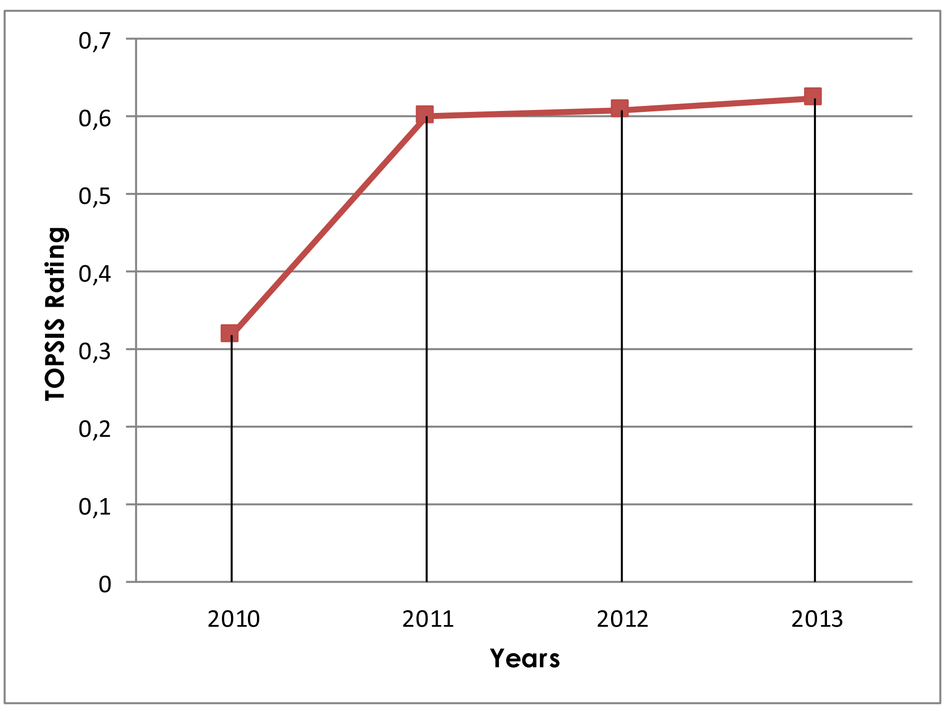
According to the calculations of TOPSIS method, Standard Chartered Saadiq Berhad had the highest performance rating, whereas Bank Muamalat Malaysia Berhad had the lowest performance rating among participation banks included in the study in 2010. Turkiye Finans Bank has ranked 6th in Turkey in 2010 with a performance rating of 0.325.

In 2011, performance rating of Turkiye Finans was calculated as 0.612 and the bank has ranked 2nd among participation banks included in the study. In the same year, Public Islamic Bank Berhad Bank was the leading bank with a performance rating of 0.623 and Kuwait Finance House (Malaysia) Berhad was the worst one with 0.313.

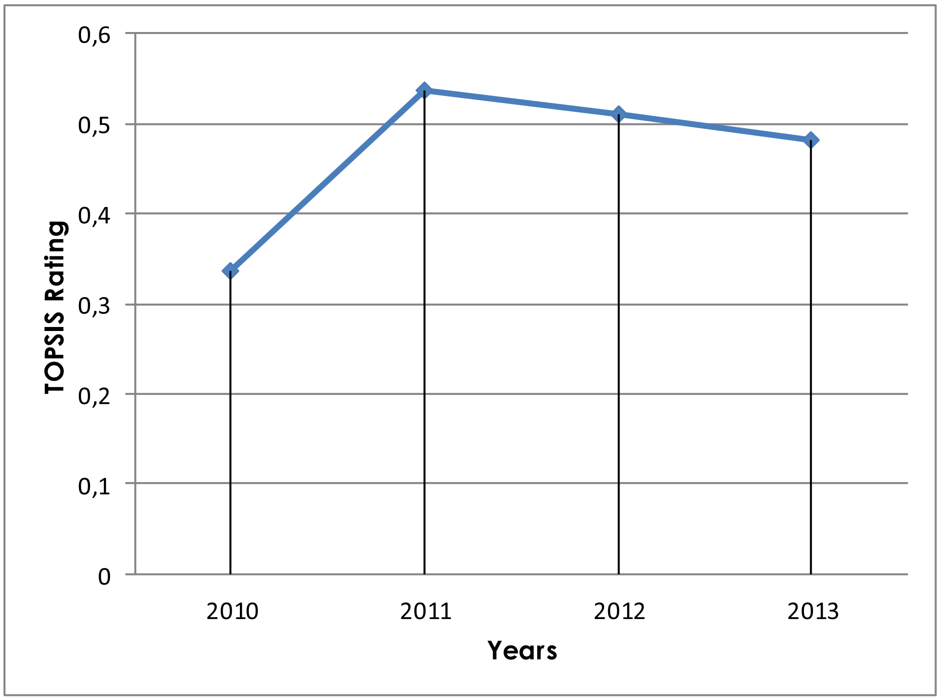
In 2012, Public Islamic Bank Berhad Bank has ranked 1st with a rating of 0.676, while Al Rajhi Banking & Investment Corporation (Malaysia) Berhad Banks took place as the last with 0.276. In the same year, Albaraka Turk operating in Turkey has ranked 2nd with a performance rating of 0.671.

In 2013, Albaraka Turk has taken the first place with a score of 0.668, while Al Rajhi Banking & Investment Corporation (Malaysia) Berhad has taken the last place with a performance rating of 0.282. In addition, in 2013, Bank Asya ranked 2nd with a score of 0.651 and Turkiye Finans ranked 3rd with 0.646, respectively.

When performance ratings of analysis period were compared in general, it has been determined that performance ratings of the participation banks operating in Turkey have been increased year by year. This case is seen more clearly in the Graph-1 below. Performances of banks operating in Malaysia have increased in the transition from 2010 to 2011; however, their performances dropped down after 2011 regularly. This case is seen more clearly in the Graph-2 below



Graph 1. Performance of the Participation Banks Operating in Turkey Between 2010 and 2013



Graph 2. Performance of the Participation Banks Operating in Malaysia Between 2010 and 2013

Conclusions

Participation banks operating in Malaysia are more developed compared to participation banks in Turkey in terms of customer portfolio, legal action framework and financial products they have offered to their customers. In addition, 11 banks were included from Malaysia and 4 banks were included from Turkey within the scope of study. Nevertheless, participation banks operating in Turkey ranked first three in the ranking performance in 2013. Rapidly growing economy of Turkey, stable establishment of the current banking system in the country and support of the government for participation banking systems may be the reasons of this achievement. In addition, the number of participation banks operating in Malaysia is higher than Turkey. This may lead to competition between these banks and result in decreased profitability and performance.

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