

IMPACT OF COVID-19 ON TAKAFUL OPERATORS IN MALAYSIA

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ABSTRACT - This study aims to analysis the impact of COVID-19 on all 16 takaful operators that available in Malaysia. There are two types of takaful operator in Malaysia, which is Family Takaful and General Takaful. Both of these takaful have the own target in the market. All the data for this research are acquired from the official website of the company Since COVID-19 arrive on Malaysia on March 2020, there are a lot of death due to the virus breakout. The family members who died during the pandemic will claim the insurance, but too many claims made can significantly affect the takaful company. Therefore, this study will rank all the takaful operators before the pandemic occurs and during the pandemic. This study uses Data Envelopment Analysis by testing two different models which is Charnes, Cooper and Rhodes (CCR) model and Banker, Charnes, and Cooper (BCC) model. Two of these models are use in this study to ensure that results of the ranking analysis are more accurate and precise. Moreover, these models employ the input-oriented model function to maximise the efficiency. The input variables for this research are commission and management expenses while the output variables are income and contribution. The decision-making unit (DMU) is the name of the takaful operator. Based on the research, BCC-I model is better than CCR-I model due to significant improvement in ranking, occupying a position that is more convincing and reliable. The result show that only four takaful operator that maintain efficiency level from 2019 until 2022 based on CCR-I model while there are six takaful operators that maintain efficiency level from 2019 until 2022.

Keywords: Data envelopment analysis (DEA), takaful operator, ranking, efficiency, COVID-19

1. INTRODUCTION

Takaful is an Islamic insurance where members contribute money into a pool of system to guarantee each other against loss or damage. Takaful is based on sharia or Islamic religious law, which explains how individuals are responsible to cooperate and protect one another. In 2020, there many deaths due to COVID-19 pandemic and most of the takaful and insurance company are seriously affected where many claim have been made by the family members or the beneficiaries. The aim of this study is to rank the all takaful operator in Malaysia before the pandemic COVID-19 and during the COVID-19.

2. METHODOLOGY

This study has been conducted at local takaful companies in Malaysia. The secondary data sources derived entirely based on the annual report of the takaful companies respectively for the year 2019, 2020 2021 and 2022. A total of 44 companies were identified from Licensed Insurance Companies & Takaful Operators list. However, this study focuses only 16 takaful companies in Malaysia. The collected data analyzed using DEA software "Learning Version" (DEA-Solver-LV version 8) to evaluate the operating efficiency of Malaysia insurers. The first step in DEA is a determination of the DMU, which is the takaful company. Next step is to identify variable (input and output) and selecting a model. There are two variables for input and two output variables also applying the CCR model (Cranes, Cooper, Rhodes) input-orientation and BCC model (Banker, Charnes and Cooper) that aims to minimize using a set of data. Then, the collected data analyzed using DEA-Solver-LV version 8 to get the results.

3. RESULTS AND DISCUSSION

Two takaful operator were excluded from total of 18 takaful company because of missing information which are Swiss Re and Munich Re. Data were collected from the annual report of the companies' website. Table 1 shows ranking of takaful operators based on CCR-I model. There are only four takaful operators that reach the efficiency score of 1 over the period of 2019 until 2022 while other takaful operator do not maintain their efficiency score over the covered period.

Table 1. Efficiency score and ranks for CCR-I model

No.	DMU	2019		2020		2021		2022	
		Score	Rank	Score	Rank	Score	Rank	Score	Rank
1	AIA PUBLIC TAKAFUL BHD	1	1	1	1	1	1	1	1
2	AMMETLIFE TAKAFUL BHD	0.7065	9	0.6397	8	0.779	6	0.7688	7
3	ETIQA FAMILY TAKAFUL BHD	1	1	1	1	1	1	1	1
4	ETIQA GENERAL TAKAFUL BHD	0.753	7	0.8204	5	0.765	7	0.7813	6
5	FWD TAKAFUL BHD	1	1	0.6094	10	0.4258	16	0.7242	9
6	GREAT EASTERN TAKAFUL BHD	0.7287	8	0.4741	14	0.552	13	0.7612	8
7	HONG LEONG MSIG TAKAFUL BHD	0.6055	12	0.5774	11	0.5294	14	0.6729	10
8	MALAYSIAN RE	1	1	1	1	1	1	1	1
9	PRUDENTIAL BSN TAKAFUL BHD	0.6432	11	0.6163	9	0.601	10	0.6326	12
10	SUN LIFE MALAYSIA TAKAFUL BHD	0.699	10	0.7473	6	0.9156	5	1	1
11	SYARIKAT TAKAFUL MALAYSIA KELUARGA BHD	1	1	1	1	1	1	1	1
12	SYARIKAT TAKAFUL MALAYSIA AM BHD	0.5134	15	0.466	15	0.5636	12	0.5456	14
13	TAKAFUL IKHLAS FAMILY BHD	0.5311	14	0.535	13	0.6155	9	0.5801	13
14	TAKAFUL IKHLAS GENERAL BHD	0.4193	16	0.4048	16	0.4547	15	0.4707	16
15	ZURICH TAKAFUL MALAYSIA BHD	0.5859	13	0.5409	12	0.5699	11	0.5426	15
16	ZURICH GENERAL TAKAFUL MALAYSIA BHD	0.7924	6	0.6488	7	0.6687	8	0.669	11

4. NOVELTY OF RESEARCH / PRODUCT

There are several research that measure the efficiency of insurance or takaful companies. According to the study conducted by Coskun et al., (2021), the technical efficiency, overall technical efficiency, and pure technical efficiency are calculated and compared per year. The result show that the overall average efficiency scores of takaful company are considerably high also the input decreases in deficit state and output have been declining over the period. Another study by Yassin et al., (2018), uses output-oriented CCR model that involves 24 local insurance company for the period 2014-2015. The result show that DEA model allows integration of the performance for the insurance company and provides management overall performance evaluation.

5. CONCLUSION

In conclusion, this study helps all the takaful operator to make any adjustment toward their funding on order to reach the efficiency level. Furthermore, customer can now buy takaful plan according from the takaful operator that are proven to be efficiency throughout the covered period.

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