UNIVERSITI TEKNOLOGI MARA

EFFICIENCY OF MALAYSIAN LIFE INSURANCE COMPANY BY USING TWO-STAGE DEA METHOD, P23S23

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ABSTRACT

The insurance has become globally important and crucial to the economic development of various nations. The fundamental objective of this industry is to safeguard any individual or organizations against uncertainty or plausible situations while also offering risk management in the form of insurance contracts. The efficiency measurement in the insurance companies may increase the quality of their activities and also assist them to identify and solve any of their management problems. Data Envelopment Analysis (DEA) is a robust mathematical model that can be applied to measure the insurance company performance that are perceived as the Decision Making Units (DMUs). Hence, the first methodology in this study is to apply Traditional DEA to measure the efficiency of 12 insurance companies in Malaysia during 2018-2021. However, the Traditional DEA considers DMUs activities as a blackbox that does not consider the interconnection process or sequential relationship that exist between the overall process and the two sub-process. The production process of the insurance industry can be divided into operational stage and profitability stage. Thus the Two-Stage DEA method has been further applied in the next stage of the methodology of thus study. From the result of Traditional DEA in 2018 for insurance, there are six companies which are AiA Berhad, Etiqa Life Insurance Berhad, Great Eastern Life Assurance (Malaysia) Berhad, Manulife Insurance Berhad, MSIG Insurance (Malaysia) Berhad and Prudential Assurance Malaysia Berhad have overall efficiency but five of the companies does not achieve efficiency score for both Stage 1 and Stage 2. This is indicates that Traditional DEA does not considers the sub-process. In the result of Two-Stage DEA for 2018, there are two companies which are Etiqa Life Insurance Berhad and Prudential Assurance Malaysia Berhad have overall efficiency score of 1 as well as Stage 1 and Stage 2. Thus, the Two-Stage DEA model may give insight to the decision maker of which stage should be given more attention for future improvements.

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