Measuring Efficient Risk Management of Life Insurance Companies in Thailand Using Data Envelopment Analysis (DEA)

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The life insurance industry plays significant functions by establishing security to all members of the society, assuring financial stability to the nation, stimulating long-term savings, and contributing funds to the investment sector. Notably the stability or solvency of the insurance industry in any nation provides a telling indication of the position of the financial system in that country. With adequate efficiency in risk management practices, life insurance companies not only can improve their overall efficiency, but also can contribute to the economic growth of the country. Therefore, insurance companies are generally encouraged to improve their financial risk management practices in order to reduce their exposure to risk, maintain a certain financial risk profile, and finally satisfy their stakeholders' interest. With regards to the insurance industry in Thailand, there are two main issues that require serious attention. Firstly, the deregulation and liberalization of the Thai insurance industry that has removed entry barriers to foreign firms combined with the restructuring of the business environment have intensified the competition in the Thai insurance industry. This also has resulted in the increased volatility of risk profile. Such alteration to the risk profile will influence the economic values of insurance firms if they have limited capacity to manage risk. To address this issue, the insurance companies need to enhance their competitive strength through proper and prudent risk management tools and mechanics. Secondly, the diverse objectives of the stakeholders motivate the insurers to implement an efficient integrated risk management strategy to balance the risk and return tradeoff. Consequently, this study aims to assess and measure the efficiency of Thai insurance companies' risk management practices and strategies and provide information about their strengths and weaknesses relative to the best practice of industry. DEA-RAM model is used to measure the efficiency score of risk management practices of each sample company. Based on 23 life insurance companies in Thailand, the results show that the life insurance risk management efficiency score in Thailand is relatively high although generally it can be considered as inefficient in its risk management practices. It implies that there is room for improvement where more output for solvency and profitability can be generated from the use of the inputs that are inherent in the operation of insurance companies. In addition, the standard deviations indicate an increasing trend, which implies that on average the life insurers in Thailand could not enhance their efficiency of risk management practices during the observed period.