保險業合併績效研究-資料包絡法實證

Evaluating Performance of Mergers Involving Insurance Industry – A DEA Approach

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摘 要

台灣於民國九十一年正式成為世界貿易組織(WTO)成員，且近年來遭受低利率環境負面的影響，保險公司面臨市場高度競爭的衝擊，本文關注如何提升經營績效，提升整體金融環境素質，並以 DEA(Data Envelopment Analysis：資料包絡法)方法進行效率分析，針對「壽險業整合最佳化」、「產險業整合最佳化」、「多產業同時整合最佳化」、「個別產業最佳化再整合」四個觀點，以「效率值提升幅度最大化」概念來討論保險業提升經營績效的可能性。結果發現，個別壽險業、產險業獨自整合最佳化後，效率提升的幅度分別為 37%與 17%。

本文亦對多產業間的資源重組研究。就「異業整合分析」部分，發現個別產業最佳化後，彼此已無須再整合，表示處於個別產業最佳化效率前緣時，本身的經營優勢可以不必再與其他產業進一步作整合，或是與其他位於產業效率前緣的公司進行整合時，也不會傷害在各產業裡原存在的優勢。而「多產業同時整合最佳化」，較「個別產業最佳化再整合」的最終組合數多，但組合後的整體效率並無極大差異，故欲使金融體系效率提升，兩種模式皆可採納。若考慮兩家公司整合有超額利益情形，即「一加一大於二」的效果，發現投入變項縮減與產出變項擴增會使效率提升，但依不同變數特性，效率增減的幅度不一。縮減分支機構與擴增自留保費對產險業整體平均效率提升有最正面的影響。

關鍵字: 保險業、資料包絡分析法、效率、整合

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Abstract

Insurance companies in Taiwan have suffered low interest rate and the high crash from joining the World Trade Organization in recent years. This study focused on how to improve the performance of both insurance companies and the financial environment. In this study, we applied Data Envelopment Analysis base on the "maximum increased efficiency" concept in the following scenarios: (A) the optimization of life insurance integration, (B) the optimization of product insurance integration, (C) the optimization of integrating life & product insurance synchronously, (D) the integration after (A)&(B). The results found that after the life insurance and product insurance were integrated individually, the efficiency increased 37% and 17% respectively.

We also focused on the resources reallocation in different insurance industries. The results showed that when each insurance industry has reached the efficient frontier, it is not necessary to merge any two companies from each industry. Although there were more companies left in scenario (C) than in scenario (D), there was no significant difference between the total efficiency in these two situations. The results also supported that when considering the extra combination profit, we found that reducing the number of branches and increasing the retained insurance premium were both positive determinants to the total efficiency of product insurance industry.

Keywords: Insurance industry, Data Envelopment Analysis, Efficiency, Integration