

兩岸軟體公司經營效率、市場價值與組織特性之實證研究

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摘要

本研究擬採用 Charnes, Cooper 與 Rhodes (1978) 及 Banker, Charnes 與 Cooper (1984) 所提出之資料包絡法 (Data Envelopment Analysis, 簡稱 DEA) 嘗試衡量與比較兩岸股市中軟體公司的相對經營效率, 並分析 2003-2004 兩年以觀察其發展趨勢; 進一步探討與公司組織特性相關變數 (成立年限、規模大小、經營模式、以及地區差異等), 及該軟體公司市場價值相關變數 (本益比 (Price/earning ratio) 等) 與經營效率的關係。

本研究之結果如下: 1. 就大陸與臺灣效率的變化與差距而言, 採用無參數 (母數) 檢驗, 結果顯示在效率差異方面, 雖然臺灣公司的效率高於大陸公司, 但是結果都無顯著差異。根據 2003 到 2004 年的效率變化, 可以看出另外一種趨勢: 臺灣與大陸軟體公司效率之差異呈現縮減的趨勢; 如果此一趨勢不變, 則大陸軟體公司的經營效率可能在未來超過臺灣軟體公司。這與公司成長機會有關, 由於大陸市場成長機會多, 所以, 大陸軟體公司與臺灣軟體公司效率差異縮小。這也說明成長機會與經營效率之間的關係。2. 就公司特性與市場價值跟效率值之間的關係而言, (

關鍵字: 軟體公司、經營效率、組織特性、市場價值、資料包絡法

The Empirical Study on the Relationship among Operational Efficiency, Market Value and Organizational Characteristics: Case in Mainland 's and 's Software Industry

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Abstract

This paper adopts Data Envelopment Analysis (DEA), which was provided by Charnes, Cooper and Rhodes (1978) and Charnes and Cooper (1984), to measure and compare the operating efficiency of software companies from Mainland and as well as to analyze the trend of operating efficiency from 2003 to 2004. In addition, to further analysis, this paper will find the relationship between operating efficiency and organizational characteristics, and the relationship between operating efficiency and market value.

The results of this paper are as follows: (1) the trend of operating efficiency shows that the difference of software companies between and Mainland is decreased, even the average operating efficiency in is better than that in mainland . Thus, this implies that the operating efficiency of software companies from Mainland China is better than that in Taiwan in the future; (2) the relation between the time of established and operating efficiency of software companies is significantly positive. In addition, the diversification degree is positively correlated with operating efficiency of software companies. Meanwhile, the scale is negatively associated with operating efficiency of software companies. The price/ earning ratio is positively related to operating efficiency of software companies; (3) the characteristics of excellent software companies are high diversification, small scale, high P/E ratio and short established time.

Keywords : Software industry, Operating efficiency, Organizational characteristics, Market value, Data Envelopment Analysis