

摘要

本論文主要是透過產業經濟學中的產業組織研究，運用 J. S. Bain 及 F. M. Scherer 為首的市場結構—行為—績效(S-C-P)的分析方式，來探討中國大陸汽車產業市場結構、廠商行為與績效之間的關係。

運用產業組織 S-C-P 的分析方式來研究產業的發展及績效的關係已經相當普遍，從早期的 E. Mason、J. Bain 到 W. Shepherd、F. M. Scherer 以還，此領域的研究成果相當豐富，然而多集中在實施市場經濟的西方國家，對經濟轉型的國家如東歐、中國及蘇聯等則較為少見。

本論文研究的主要目的，即在探討大陸地區汽車產業之市場結構、產業特性、產業內廠商之營運行為及彼此間的競爭型態；並進一步運用現有的資料，以實證方法對汽車產業市場結構、廠商行為及利潤之來源加以檢定，再由實證中所發掘出的資訊，評估研判大陸汽車產業發展的走向及相關問題。由於中國大陸是一個在二十世紀八十年代開始才自計畫經濟體制逐漸轉型為市場經濟體制的國家，本身仍具有計畫經濟的一些特質，產業政策的制訂及強制實施，對大陸汽車產業結構及行為均具有一定的影響力，因此本文亦透過大陸官方頒布的汽車產業政策來探討其對汽車產業的影響。

經由本文對中國大陸汽車產業的分析顯示，產業組織中市場結構(S)、行為(C)與績效(P)，彼此間是處於相互影響之動態關係。而實證研究亦顯示，市場結構及行為對廠商績效的產生有密切的關聯。

在市場結構方面，大陸汽車產業的市場結構有逐漸大型化、集團化的趨勢，大型企業的市場占有率也逐年提升，市場集中度(CR₄、CR₈)相對提高；唯有轎車生產廠商在進入業者增多及競爭激烈之下，市場集中度有下降的現象，未來大陸汽車產業整體的市場結構有進一步緊縮並向寡頭壟斷發展的趨勢。在廠商行為方面，廠商的併購重組及價格競爭行為有助於市場結構的改善，投資研發及行銷策略等廠商行為則與市場結構及績效有相互影響。另外大陸汽車產業政策對市場結構、行為、績效則有大小不一的影響，部分產業政策目標得以實現，部分政策目標則無法完成。

在汽車產業集中度與績效之直觀性分析方面，根據 1995 至 2003 年的相關數據顯示，不論是整車生產廠商、企業集團或轎車生產廠商，其市場集中度愈高，其績效表現相對較佳（工業增加值率愈高）。

另外從實證分析的結果來看，與市場結構相關的 5 個變數，其中市場集中度（H）、市場占有率（MS）與績效為正相關；而市占率平方（MS²）及勞動密度（Labor）為負相關，大致上與我們的假設相符。另外資本密度（Capital）的實證結果則與假設有所不同，其中 34 家車廠樣本的檢定為正，而 15 家集團的結果為負，顯示大陸汽車產業目前並不具資本優勢，尤其是部分汽車集團的資產對績效的產生並不具正面效益。在行為變數方面，投資行為（Investment）對績效的影響為正相關，與我們的假設相同，顯示持續的投資對汽車廠商績效的產生具有重大正面的影響。時間趨勢（Time）變數也有所不同，實證顯示 34 家車廠的績效隨時間趨勢有逐漸下降的情形，而汽車集團的績效則隨時間趨勢呈上升現象。

正如產業組織理論所述，廠商的績效可以有許多個評定考核的標準，一般均以利潤最大化或搶占最大的市占率為目標，但以大陸目前汽車產業狀況而言，本土汽車企業或大陸官方控股的汽車集團能否開發出知名的自有汽車品牌應當是重要的績效之一。根據本文的研究也發現，中國大陸目前汽車集團或大型汽車企業的短期目標是做大規模，利用規模經濟及擴大市占率來鞏固利基。但卻忽略其基本目標或長期目標應是做強企業，所謂做強企業應是運用研發成果或提升經營效率使成本降低，以提高企業的利潤率或附加價值，才算是一個成功的企業。做大企業固然不易，做強企業更是困難，但唯有持續不斷地突破、創新、研發，才能在競爭激烈的中國汽車大戰中脫穎而出，立於不敗之地。

關鍵字：汽車產業、市場結構、廠商行為、績效、S-C-P、產業組織、中國大陸汽車、進入障礙、併購重組、產業政策

Abstract

The market structure, firm conduct and performance in China's automobile industry

This thesis aims to explore the relationship between market structure, firm conduct and performance of the automobile industry in mainland China by applying the structure-conduct-performance (S-C-P) model of industrial organization.

There are many outstanding studies using S-C-P approach to examine the dynamics between industrial development and performance, such as E. Mason, J. Bain, W. Sherpherd, F.M. Schere, etc. However, most of them focus on the market economies in western countries. Few of them discuss the situations in Eastern Europe, China and former Soviet Union countries that undergo economic transitions.

The thesis intends to explore the characteristics of the market structure, firm conduct and economic performance in China's automobile industry, to examine the dynamics of S-C-P in automobile industry by regression analysis, and to evaluate the development and problems of the automobile industry in mainland China. Although China has been undergoing economic transitions from a planned economy to a market economy since 1980s, not all the characteristics of the planned economy are replaced. The regulatory policy making and implementation have significant impacts on its automobile market structure and firm conduct in this industry. In this regard, the thesis intends to discuss how China's policy influences its automobile industry.

Paramount findings of this research suggest that, in China's automobile industry, market structure, firm conduct and performance interact with one another. Regression analyses indicate that market structure, firm conduct and performance are strong associated.

The market structure of the automobile industry in China characterizes

large firms and groups, the growing market share rate of large-scale enterprises on a yearly basis and the rise of market concentration degree (CR₄, CR₈). However, the value of market concentration degree of sedan manufacturers decreases due to the increase of competitors in this market. As a result, the market structure of China's automobile industry will evolve to oligopoly in the future. Firm conducts such as merger, reorganization and price competition help to improve the market structure. Other firm behaviors like investment, R&D, and marketing strategies influence the market structure and performance and vice versa. Moreover, China's automobile industrial policies have various impacts on market structure, firm conduct and performance. In practice, some goals of the automobile policies are attainable, however, others are unattainable in practice. Based on the data between 1995 and 2003, a statistical analysis of concentration degree and performance in automobile industry suggest a positive relationship that higher market concentration degree results in better performance (higher industrial added-value rate), regardless whole-car manufacturers, group enterprises or sedan manufacturers.

The multiple regression analyses of five variables related to market structure represents that the values of concentration degree (H) and market share (MS) alike have positive effects on the value performance whereas the values of market share rate squared (MS²) and labor density(Labor) alike have negative effects on the value of performance. These results support our hypotheses in this study. Nevertheless, the result of a relationship test for capital density(Capital) and performance is different from our hypothesis. The value of capital density of 34 car firms and the value of performance have a positive relationship, which echoes our assumption. Yet the hypothesis test for capital density of 15 groups leads to the opposite. It suggests that: capital advantage does not emerge in China's automobile industry so far. In particular, assets of some automobile groups do not have beneficial effects on business performance. Firm conduct includes one variables: investment. Regression analysis indicates a positive relationship between investment and performance.

The result is consistent with our hypothesis and concludes: constant investment contributes to automobile firm performance. Relationship testing for time and performance shows that: when the value of time increases, the value of 34 automobile firms' performance decreases whereas the value of 15 groups' performance increases, accordingly.

The theory of Industrial organization provides multiple criteria to assess firm performance which usually aims to maximize profit or market share. In the case of current automobile industry in China, whether or not local automobile firms or state-owned enterprises achieve a successful brand building of China-made vehicles should be an important indicator of performance. This research also discovers that on one hand the automobile groups and large-scale enterprises in China embrace short-term goals to maximize firm scale and market shares so as to maximize revenues by exploiting the advantages of economy of scale, however, on the other hand, they ignore fundamental, long-term goals to be sustainable, successful and competitive corporations that invest R&D to increase business efficiency, reduce costs, and boost marginal revenue and added-value rate. Being a big firm is never easy yet being a competitive enterprise is even more difficult. Only with constant improvement in management, investment in R&D, the invention of production can an enterprise survive and succeed in the competition in China's automobile market.

Key words : Automobile industry, Market structure, Conduct, Performance, S-C-P, Barrier to entry, Merger, Industrial organization, Chinese automobile, Industrial policy.