The Supplier System in Chinese Automobile Industry: The Case of FAW Volkswagen

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ABSTRACT

Recently, the Chinese automobile industry has achieved remarkable progress. Both production and sales volumes in China have been rapidly increasing. Based on the overall auto sale volume in China, over 50 percent of production volume belongs to joint-venture manufacturers. In order to investigate competitive strategies of the Chinese automobile industry, the study of automobile companies and their supplier systems (SS) are necessary. In the current research, the joint venture manufacturer FAW VW Automobile Co. Ltd., (FAW VW), which is a leading automobile company with high performance in the Chinese market, is taken as an example. Through applying the comparative study methodology, as well as the investigation and analysis methods based on FAW-VW and its supplier system, the drawback of the current supplier system has been identified. The major implication of the proposed study is that inter-organizational relationships of FAW-VW and its suppliers are becoming stronger during the progress of solving problems while the development and production systems are still relying much on suppliers

INTRODUCTION

In the automobile assembly maker, approximately 20000 parts are assembled, and the ratio of material cost to manufacturing cost exceeds 70%. As automobile assembly manufacturers procure most of them from external parts suppliers, their competitivenes depends largely not on only their own development and production process management but also the purchasing control abilities. Therefore, when analyzing the competitiveness of automobile manufacturers, it is important for

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automobile manufacturers to focus on the supplier system, which is the comprehensive interdependence relationship with suppliers (Asanuma, 1997; Fujimoto, 1998).

This study clarifies the current state of the supplier system of FAW VW, which is a joint venture between VW Group in Germany and a major state-owned enterprise FAW Group in China, exerting great influence on the Chinese automobile industry.

THE PRECEDING STUDY ABOUT A SUPPLIER SYSTEM OF THE CHINESE AUTOMOBILE INDUSTRY

Supplier System

The problem consciousness aims to position these supplier systems to clarify the competitiveness of FAW VW and to grasp the relationships form between the automobile manufacturers and suppliers.

From the viewpoint of economics, the competitiveness of companies which is shown by market share and profit margin are the indicators to evaluate (Jin, 2002). In order to investigate the automobile industry’s competitive strategies, the study of automobile companies and their supplier systems (SS) are of much necessity. (Asanuma, 1997; Fujimoto, 1998).

Based on the above discussion, we define the competitiveness in the proposed research as deep competitiveness to achieve long-term development that can maintain its own good circulation.

Previous Researches

From another perspective, there are many studies on Chinese automobile manufacturers and their supplier systems in Japan. The main points clarified are as follows:

(1) As a feature of the suppliers systems of Chinese automobile manufacturers, price is important, and development is not directly involved in many cases.

(2) It has been revealed that the form of inter-organizational system is largely influenced by the international division of labor as well as the location selection of primary parts and secondary suppliers in the supply chain, as a major point of progress in production (Park, 2008).

(3) Fujikawa (2014) analyzed the supplier system between FAW Car and the Japanese supplier of Mazda Japan. As a result, FAW Car revealed that it is a "parasitic" supplier system that not only relies on suppliers for design, development management, problem solving, and so on, but also pass risks to suppliers.

The preceding research above covers the supplier system of joint-stock auto manufacturers in China. However, most of these researches are discussed from the standpoint of foreign-owned manufacturers and analyzed in terms of the ways to
maintain competitive advantage. It can be said that there is a lack of analysis from the viewpoint of the manufacturers in developing countries, such as Chinese automobile manufacturers and joint-venture manufacturers.

**CASE ANALYSIS**

In this research, we will look at the case of FAW VW, a major German joint venture manufacturer in the Chinese auto industry. The contents of this research are mainly from the primary materials obtained through an interview survey and the published secondary materials. In this paper, we will consider the research on supplier system through a case analysis.

Japanese manufacturers were required to procure the intermediate products used by their partner from outside companies, or a group of specific companies organized or owned by it. (Asanuma, 1990) U.S. automobile manufacturers adopted market competition to select the manufacturers that could offer the best QCDE (quality, price, delivery, and development capability) at some points in choosing suppliers.

On the one hand, US automobile manufacturers have begun to take part in the organizational routine of the Japanese supplier system since around 1990. A hybrid-type supplier system that combines Japanese type and US type is being observed among global automobile manufacturers. (Fujikawa, 2014)

Since the 1990s, the European automotive industry has been developing modularization and assembly modules. In addition to the task of assembly, development is also often requested by outside suppliers. As modularization advances, the reliance on automotive manufacturers' Tier-1 suppliers becomes stronger (Ikeda, 2006).

![Figure 1. Supplier system comparison analysis framework.](image-url)
As mentioned above, Japan, the United States and Europe have established their own relationships with suppliers, but similarities (homogeneity) have increased. Fig. 1 is a summary of the above discussion.

FAW VW's Supplier System

Firstly, as a response mechanism in the case of problems in development and production process, component makers generally do not participate in the design review meeting of the assembly manufacturer at the development stage. Instead, it only participates when problems occur at the stage of drawing design. Secondly, before entering the mass production stage, a parts engineer would be dispatched from a parts maker to a car maker. When a problem arises, they would respond by cooperating manually and immediately. Thirdly, when a problem occurs in the process of design development to the parts supplier, the assembler determines whether or not to support, which depends on the importance of the problem. Fourthly, parts manufacturers regularly participate in the quality conference of automobile manufacturers. Fifthly, when problems occur, assembler will send an engineer to stay at the place of parts suppliers to support them until the problem is solved. Sixthly, although automobile manufacturers have a common correspondence procedure book, there is a possibility that their response method to each problem may differ actually, according to the interview survey.

Based on the analysis results above, the supplier system of FAW VW has revealed that the trading system in development and production is market-oriented, and the response system to problems takes on a cooperative type in development and production process. In consequence, FAW VW's supplier system can be positioned as a market-oriented cooperative hybrid supplier system, as shown in Fig 2.

Comparative Analysis of FAWVW’s Supplier System and Current Research

In accordance to the previous research, the supplier system for the development and production process of FAW VW is market-oriented. Its response system to problems in the development process shows a cooperative type in the production process, which is a division of labor type. Based on the results of this research, the supplier system of FAW VW in the stages of development and production is market-oriented, and its response system to problems indicates a cooperative type in both development and production processes. As a result, it can be said that the relationship between FAW VW and its suppliers has become closer.
CONCLUSIONS

From the viewpoint of Chinese automobile manufacturers, it is important to put more emphasis on development and production stages in order to improve the current state of supplier systems. In particular, in order to realize the improvement of the automobile production capacity of Chinese developing automobile manufacturers, not only their own competitive advantages, but also their ways to coordinate supplier system are more important. Training Chinese goods suppliers is a significant measure that can lead to the improvement of the overall capacity of the Chinese automobile industry.

In order to comply with NEV regulations, joint-venture automobile manufacturers in China expect not only gasoline-powered vehicles, but also local new production of new energy vehicles, as well as various technologies and know-how for Chinese automobile manufacturers and parts manufacturers. It is also a great opportunity to improve technology, production and management capacity. The methods to transform domestically produced automobiles and parts into technologies and the know-how learnt from localization production in the Chinese auto industry will be future research subjects.

REFERENCES