# Current Situations of Auto After-sales Services in China and Ideas on Its New Service System

Dr. Wu Dong, Dr. James Chiang, Dr. Michel Plaisent, and Dr. Prosper Bernard

**Abstract**—Nowadays, thousands upon thousands of families have boasted automobiles that are articles of luxury in the past, as Chinese residents enjoy better-off living standard with each passing day. Besides, this brings about favorable business accesses to auto aftersales service industry because of rapid increase of car ownership in China. In addition to the favorable business accesses, auto services including maintenance, parts supply, automobile decoration and automobile repacking, etc. will be identified as "Rear-Market" for auto market if we take vehicle sales as "Front-Market" for the market. Therefore, the auto market driven by interests has focused its attention on after-sales service competition, but not contending for benefits at "Front-Market", in regard to the key role played by auto after-sales service industry in merchants' winning market shares. This Paper by virtue of analyzing current situations, problems and development potential with respect to auto after-sales services in China comes up with ideas for New SOA (Service Oriented Architecture) Service System for auto after-sales services and recommends auto after-sales service industry in China to learn from advanced service systems in foreign countries for gaining experience in successful case constantly, further improve itself and set up a set of sound auto after-sale service system featuring sustainable development.

*Keywords*—China; Auto After-sales Services; Current Situations; Service Systems.

### I. INTRODUCTION

OVERr the past decades of reform and opening up to the outside world, Chinese national economy has embraced sustainable and sound development all the time, with rapid increase in Chinese resident's financial income as well. Chinese auto industry since early 1980s has also experienced rapid growth as it cooperates with well-known automobile enterprises from foreign countries. Up to now, Chinese auto industry in fast growing has geared up prosperity of the whole auto market, and ordinary people begin to obtain automobiles as people's standard of consumption is improved day by day. Meanwhile auto service industry, supporting facilities for auto market (namely "Auto Rear-Market"), has attracted people's attention along with auto market's heating up.

Automobiles deemed as service object accept various services at the moment when manufacturing is completed, such

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as, logistics distribution upon factory delivery, after-sales services in agencies, maintenance & decoration in course of usage and other household-known service items as well as some new items that are nationwide popular in recent years including Auto Club, automobile repacking and automobile leasing, etc.. All in all, auto services involve with all services regarding links from factory delivery of new vehicle to business circulation, sales, purchases and usage till scrap recycling, and main agents offering those services contribute to auto service industry. **This Paper** mainly focuses its attention on current situations, problems and development potential with respect to auto after-sales services and comes up with ideas for new auto service system.

# 1. Current Situations and Problems Reflected by Chinese Auto Service Industry

Chinese auto service industry at the moment is not well developed and needs further improvement. And a large number of international capital along with increase of car ownership and output & sales in China rushes into Chinese auto service industry, which brings about huge pressures on Chinese domestic enterprises. Now, it is inevitable for auto service industry to undergo comprehensive improvement because chain enterprises from foreign countries have worked to explore Chinese auto market and threaten development of Chinese independent enterprises.

# 1.1 Current Situations of Chinese Auto After-sales Service Industry

After-sales services generally refer to all technical services provided to customers by sales departments and service management in sales departments. In addition to technical services, it covers pre-sales stage, sales stage and after-sales stage, of which series of technical efforts focusing on maintenance, quality warranty and spare parts supply after sales of vehicles plays the most important role therein. Competition occurring at Chinese auto market has attached more importance to competition of after-sales service market than on competition relating to authorized sales. Up to now, Chinese auto manufacturers mainly set up proactive service concepts such as "Customer Driven", "People Oriented", and "Clients First" on the basis of competition situations for auto markets at home and abroad. And perfect after-sales service nets are established at the same time, such as, 4S brands excusive agencies like bamboo shoots after a spring rain offering services covering maintenance (sales and repair of fittings), finance and insurance, etc.. However, whether managers or service employees with respect to specific

services still find it difficult to achieve customers satisfaction oriented services positively and evaluate services on the basis of customers' satisfaction. And auto manufacturers on the whole have taken after-sales services as passive actions to satisfy the requirements of laws and market competing pressure, according to current situations of auto after-sales service market.

### 1.2 Key Problems Found in Chinese Auto Service Industry

#### 1.2.1 Late Starting and Lacking Basis

China prior to the reform and opening up has a weak foundation in national economy, and government agencies account for a large proportion in automobile users, so auto service industry suffers little pressure from demands of auto services. And Chinese auto market after the reform and opening up is still in sellers' market for some period and automobile users do not hold great expectations in terms of services.

# 1.2.2 Service Concepts have not been further popularized

Now, Chinese auto service industry as compared with foreign auto service industries suffers severest backwardness in service concepts, because many automobile manufacturers only attach their importance to production regardless of services and their auto after-sales services lack strong investment and active attitude about handling customers' feedbacks timely. Worse still, dealers appertaining thereto only focus their attention on immediate interests, automobile sales and establishment of branches & business halls and neglect investment in after-sales services, etc., failing to tap profit growth point of "Rear-Market" for auto market.

### 1.2.3 Employees of Lower Comprehensive Skills

Staff engaged in vehicle maintenance industry in China receives little special training because most of them learn the skills by way of master-training-apprentice. Up to now, relevant specialized courses regarding vehicle Maintenance are set up in several secondary or higher technical schools over the past few years, but employees of auto service industry in our society still remain at a lower level of technical skills generally.

# 1.2.4 Market is out of Order without Sound Laws and Regulations

It is hard to achieve effective management and supervision over dealer's behaviors definitely in the field of finished automobile circulation resulting in whooping up vehicle prices occasionally, while problems about quality of auto fittings loom large in the field of auto spare parts circulation. When it comes to national policies, laws and regulations on Chinese auto service market, the abovementioned market has been closed for a long period of time and lacked a complete free competitive mechanism, causing slow development of Chinese auto industry.

#### II. PROSPECT OF AUTO AFTER-SALES SERVICE IN CHINA

### 2.1 Chinese Auto Production & Sales and Car Ownership in Recent Five Years

Chinese car ownership by the end of 2014 has reached 154 million, making auto after-sales service market become an emerging sunrise industry, and meanwhile automobile manufacturers attach more and more importance to managing and upgrading after-sales services as well.

Chinese car ownership in 2010 reaches 90.86 million, and its output & sales are 18.2647 million and 18.0619 million respectively, an increase of 32.44% and 32.37% from the year before. Chinese car ownership in 2011 reaches 101.2698 million, and its output & sales are 18.4189million and 18.5051 million respectively, an increase of 0.84% and 2.45% from the year before. Chinese car ownership in 2012 reaches 120.89 million, and its output & sales are 19.2718 million and 19.3064 million respectively, an increase of 4.63% and 4.33% from the year before. Chinese car ownership in 2013 reaches 140.18 million, and its output & sales are 22.1168 million and 21.9841 million respectively, an increase of 14.76% and 13.87% from the year before. Chinese car ownership in 2014 reach 154 million, and its output & sales are 23.7229 million and 23.4919 million respectively, an increase of 7.3% and 6.9% from the year before. (Table 1).

TABLE I
STATISTICS INDICATING CAR OWNERSHIP, OUTPUT AND SALES DURING
THE PERIOD BETWEEN 2010 AND 2014 IN CHINA (UNIT: MILLION)

Items	2010	2011	2012	2013	2014
Automobile	18.2647	18.4189	19.2718	22.1168	27.3229
Output					
Automobile	18.0619	18.5051	19.3064	21.9841	23.4919
Sales					
Car	90.86	101.2698	120.89	140	154
Ownership					

Analysis of the Above-mentioned Data Statistics, as follows (Figure 1):

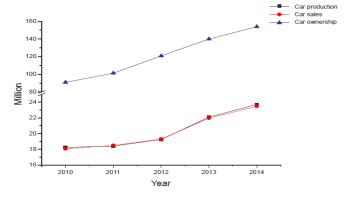


Fig. 1 Indicating Increase in Chinese Car Ownership, Output and Sales during the Period between 2010 and 2014

Analysis of Chinese Car ownership, Output and Sales during the Period between 2010 and 2014 according to Chart 1 indicates: Car ownership, Output and Sales in recent 5 years show progressive increase with each passing year.

### 2.2 Forecasting Demands of Chinese Auto Service Market in Following Five Years (Unit: Million)

 $TABLE\ II$  Forecasting Car Ownership and Sales during the Period between 2015 and 2019 in China (Unit: Million)

Items	Car Ownership Forecasting		<b>Auto Sales Forecasting</b>		
Years	Bottom Line	Upper Limit	Bottom Line	Upper Limit	
2015	155	156.80	25.308	28.864	
2016	163.90	168.80	27.344	30.296	
2017	164.80	178.10	29.592	32.296	
2018	177	189.80	31.848	36.208	
2019	186.40	201.20	34.304	42.504	

Analysis of the Above-mentioned Data Forecasting, as follows (Figure 2):

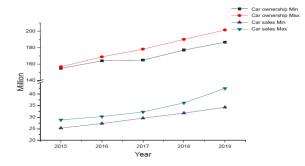


Fig.2 Indicating Increase of Chinese Car Ownership and Sales during the Period between 2015 and 2019

Analysis of Chinese Car ownership and Sales in the following 5 years according to Chart 2 indicates: Car ownership and Sales show progressive increase with each passing year.

It indicates that Chinese Car Ownership and Sales over the past 5 years have experienced rapid growth and will enjoy progressive increase in the following 5 years according to Chart 1 and Chart 2, showing broad prospect of Chinese auto after-sales service market.

### III. IDEAS ON NEW SYSTEM FOR CHINESE AUTO AFTER-SALES SERVICES

### 3.1 Development Path Followed by Chinese Auto Aftersales Service

Development patterns formed in China consists of 4S Brands Excusive Agencies and Chain-store Operations. Chinese auto after-sales service system as compared with developed countries suffers slower development. According to statistic data concerned thereof, profits of automobile sales account for 20% of earnings in auto industry and profits of component part supply take a proportion of 20% of the earnings approximately, while profits produced by auto after-

sales service field account for 50%-60% of earnings in auto industry in a fully fledged international auto market. For example, annual output value of the U.S. auto after-sales service industry reaches up to 140 billion U.S. Dollars and profits earned from auto maintenance & repair industry reaches 27%. Therefore, Chinese auto service industry must draw on foreign experience selectively if it desires to develop, such as, strict market access system for protecting interests of consumers, powerful "government macro-control", classification management system for guaranteeing quality of services, multi-level service channels for offering convenient services, etc..

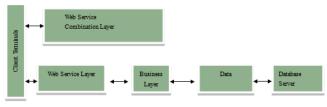
### 3.2 Ideas on Chinese Auto After-sales Service System

#### 3.2.1 Ideas on Service Oriented Architecture (SOA)

Services may be identified as components of a complete solution according to ideas on SOA in concept, and single service consists of software components internally. Those services the same as any other application program can be divided into business facade, business layer and data layer internally in a logical manner, presenting hierarchical structure.

## 3.2.2 Layered After-sales Service System on the Basis of SOA

This Paper based on scope of application and specific requirements makes framework of after-sales service system have four layers including Presentation Layer, Business Façade, Business Layer and Data Layer, in order to further reflect design philosophy of New SOA. (Figure 3)



Presentation Layer Business Façade Fig. 3 Ideas on Layered After-sales Service System on the Basis of SOA

### 3.2.3 New SOA Services Design of Auto After-sales Services in Case Enterprises

Business Laver

EX-warehouse business of fittings sales in XX Company is taken as an example because it is a more representative business in after-sales service of the said Company. And designs for database, service layer and service combination layer, etc. of SOA auto after-sales service system are shown in Appendix A (Figure 4):

Service layer, based on the above-mentioned SOA auto after-sales service system design, is identified as core part of the system, laying a foundation for service combination layer. And many basic services are designed in EX-warehouse business process of fittings sales, such as, fittings order enquiry, order review, fittings inventory enquiry, service station balance enquiry and organizing delivery, etc..

The above-mentioned after all is an idea only which demands further verification. Chinese auto after-sales service industry still remains in a stage needing further development and suffers severe backwardness as compared with developed countries featuring advanced international auto industries such as United States, Japan and the Europe, so Chinese domestic market shares are often occupied by foreign firms. Therefore, it is urgent for Chinese auto after-sales service industry to introduce and draw on experience from foreign countries, such as, "Lemon Law" and "Franchising Business" from America as well as People-oriented Services from Japan.

#### IV. CONCLUSION

Chinese auto after-sales service industry in recent years experiences rapid growth and sets up well developed patterns such as 4S Brands Excusive Agencies and Chain-store Operations. Besides, capital strength and investors promoting auto after-sales service industry make their way to participation in the industry, and state laws, regulations, policies and booming measures related thereto undergo further improvement as well. Chinese auto after-sales service industry taking into consideration of Chinese circumstances must follow a path with Chinese Characteristics on the basis of national circumstances, culture and consumption features in China, allowing Chinese auto after-sales service industry stay on a sound track of faster development.

Development patterns and policies selection regarding auto after-sales service industry must be in further exploration and study in a theoretical and practical manner, as the industry experiences rapid growth with each passing day. Although the author hereof boasts years of working experience at site, study on the said industry undergoing constant growth is carried out superficially because of the author's limited theoretical knowledge and energy. In addition to the above-mentioned, it also affects profundity and strength of this study due to insufficiency of research literature on hand.

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### **APPENDIX A: figure 4: The NEW SYSTEM**

