

The Empirical Research for the Influence Factors and Mechanism of Customer Experience^①

——Based on the Intermediate Car Marketing of China

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Abstract. Along with the fast improvement of scientific technology and the enhancement of the hierarchy of needs, customer experience has become a new way to make competitive advantage for enterprises. Face the violent competition, customer experience has become critical for brand management for automobile enterprises. The aim of this research is to probe into the influence factors and latitude of customer experience for the car industry of china, which will direct the marketing and brand management for automobile enterprises.

Introduction

With the rapid progress of scientific technology and the continuous improvement of the customer needs, the economic offering has constantly changed. Toffler (1970)^[1] firstly proposed the three-stage theory of economic development, that is, manufacturing, service and experience industry. Pine II and Gilmore (1998)^[2] declared that “the coming era of experience economy”, the experience has been separated from the service industry as fourth kinds of economic offering. With the arrival of the Experience Economy, the marketing modes are changing, customer experience and experience marketing are appearing. Customer begins to learn through their personal experience provided by some companies or products. The customer experience has increasingly become an important means of operating the modern enterprise to narrow the distance with their consumers, the new weapons of gaining competitive advantage.

Entry into the 21st century, China's automobile industry has gained development booming; both the production and sales volume have made a high-speed growth. The automobile industry has become an important industry in the Chinese economic structure. After passing the period of 2002 and 2003, the market "blowout", the sales growth rate begins to decrease in 2004, China's automobile industry also begins to fall completely from the "seller's market" into a "buyer's market". The technological gap of the product has become very near among the car manufacturers, because of the increasingly fierce competition in this market. The price and model can not stimulate market, the brand competition has become critical.

The majority of car buyers are not "experts", they do not have the time, energy and expertise to judge or check the quality and functions of the car itself, the experience has become the key to manage the corporate brand. Customers produce loyal to the brand through good experience and pleasure feelings, then ultimately bring about the improvement of enterprise sales, brand value, and competitiveness in the enterprise.

Research Object, Model and Assumptions

2.1 Research Object

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This research selects intermediate private car (including medium-size, medium and large size, the price of 100,000--250,000 Yuan) market as a research object. The entire research respondents are the consumers who own and use intermediate private cars more than one year at least.

From 2001, the main consumption in China's automobile market began to change fundamentally, the demand growth of private cars is more than the public service vehicles and commercial vehicles, and the proportion is increasing year by year. With the improvement of people's living standards, the main objective of the private car is an intermediate sedan. Since 2005, the top ten cars brands in China's sedan market are mainly intermediate cars (medium-size, medium and large size).

There is big difference in demand characteristics between official cars, commercial vehicles and the private cars. The buyers, users, evaluators and decision-makers in private car market are not separated; customer experience has a greater impact on brand evaluation and purchase decision.

2.2. Research Model

Regarding the research literatures for the influence factors and latitude of customer experience in the car industry are rather few, this paper on the basis of the related literatures, Schmitt (1999, 2004) ^[3] and He Xiao-de (2006) ^[4] is mainly through open-ended questionnaires and depth interviews to build initial question collection for the influence factors and latitude of customer experience. There are total 250 questionnaires which are sent to the respondents, 206 questionnaires get back and are valid, and the rate is 82.4 percent. Meanwhile, 20 consumers, who are between 30-50 years of age are made with a deep survey (survey time: 20-30 minutes). The initial 51 questions collection of influence factors for customer experience is finally accomplished by feature extraction, similar merge and frequency statistics.

The pre-survey questionnaire is formed on the basis of the original questions collection by purifying the scale, and identifying the extent of influential questions for customer experience to delete the items which are not important. 37 items are remaining. Combined with the research literature and depth interviews, the 37 items are collected into four major factors: products, reputation, communication and service. Customer experience is also separates into perceptual experience, emotional experience, and social experience. The research model and the hypotheses are to be proposed in these basic conditions.

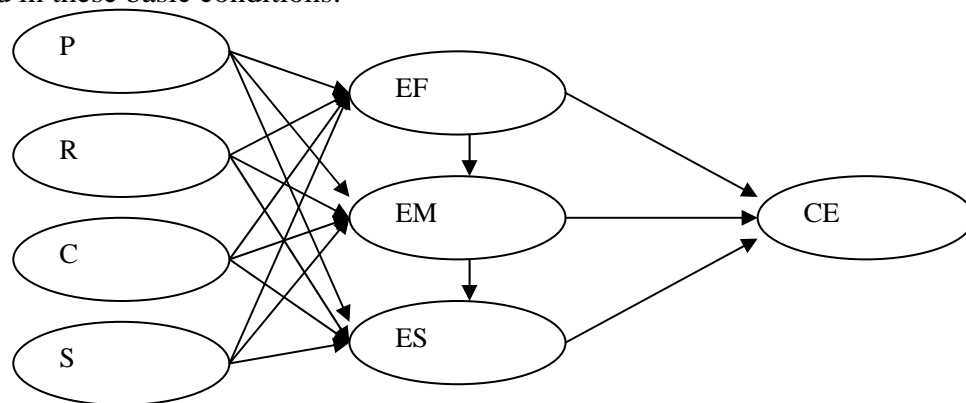


Fig.1 The research model for the Influence Factors and Mechanism of Customer Experience

Note: P= Product Latitude; R= Reputation Latitude; C=Communication Latitude;

S= Service Latitude; EF= Perceptual Experience;

EM= Emotional Experience; ES= Social Experience; CE=Customer Experience

Customer experience refers to the consumption experience of the customer, and it occurs in the interactive process of purchasing, using, being in service. It includes the perceptual experiences, emotional experience and social experience. The perceptual experience is combined by sensation and perception from a psychological perspective. Sensation is considered as an individual attributes reflection which only belongs to the objects when the objective matter affects human sensory organs. Perception refers to the comprehensive response from the various parts and attributes of matters. The perceptual experience means the customer's overall feeling, which is based on the products, reputation, communication, service and other factors, while in the process of buying and using cars. The good sensory experience brings customers a better impression on the brand awareness, brand image and brand relationship then forms higher brand assets.

The consumption process is not only a perceptual experience, but also an emotional experience. During the shopping time, customer would probably experience a succession of emotion matters. Compared with the sensation, the emotional experience is referring to the emotional state of customer who subjectively feels and perceives. For example, the customer may experience a happy, enjoy, excited, angry, sad, disappointed, meet, guilty feeling and other emotions during the entire process of buying and using cars. Many different emotional classification methods have been proposed by psychologists. Izard (1977) holds the points that there are the ten basic emotions for human: interest, pleasure, anger, disgust, contempt, pain, fear, shyness, guilt and surprise^[5]. Plutchik (1980) is considering that there are the eight basic emotions: happy, anger, disgust, pain, fear, surprise, acceptability and expectations^[6]. Mehrabian and Russell (1974)^[7] divide people's emotion into three latitudes: joyful latitude, evoking latitude and dominating latitude.

Social experience is the experience of the customer about social attribution, image and culture in the process of purchasing and using of cars. Schmitt (2004)^[8] points out: experience media is a reminder of personal relationship when he researches the related model of assessment tools. The experience includes entertainment, emotional and social cultural experience. Culture experience includes fashion experience, identity experience, regional cultural experience, blood relationship experience and ideology experience, etc. The core of culture is the values.

2.3. Research Assumptions

According to the literature review, open-ended questionnaire, pre-survey questionnaire and depth interviews, the research model and proposed assumption are built on the foundation of the customer experience that includes perceptual experience, emotional experience and social experience.

- H1: the product factors have a positive impact on perceptual experience of customer;
- H2: the product factors have a positive impact on emotional experience of customer;
- H3: the product factors have a positive impact on social experience of customer;
- H4: the reputation factors have a positive impact on perceptual experience of customer;
- H5: the reputation factors have a positive impact on emotional experience of customer;
- H6: the reputation factors have a positive impact on social experience of customer;
- H7: the communication factors have a positive impact on perceptual experience of customer;
- H8: the communication factors have a positive impact on emotional factors of customer;
- H9: the communication factors have a positive impact on social experience of customer;
- H10: the service factors have a positive impact on perceptual experience of customer;
- H11: the service factors have a positive impact on emotional experience of customer;
- H12: the service factors have a positive impact on social experience of customer;
- H13: the perceptual experience has a positive influence on the emotional experience of customer;
- H14: the perceptual experience has a positive influence on the social experience of the customer;
- H15: the emotional experience has a positive impact on the social experience of customers.

Research Content

3.1 Exploratory Research

The exploratory research questionnaire is formed by 37 items for influencing factors of customer experience, 9 questions for scale measurement of customer experience and the questionnaire is based on Richter's five scale. When completing the preliminary design of questionnaire, opinions and suggestions are revised by interviewing with the professionals of production operations, automotive consumers and marketing experts. Five customers are selected to have a small survey in order to check misunderstandings. Finally, there are 215 valid questionnaires back.

Exploratory factor analysis is using principal component analysis and integrating with the orthogonal rotation varimax, the result shows that KMO value is 0.876, Bartlett's concomitant probability in test of sphere is 0.000, which is less than the significance level 0.05, rejecting the null hypothesis, which means the data is suitable for exploratory factor analysis.

Table1. The exploratory research results for Influence Factors of Customer Experience

Latitude	Influence Factors(Item)	Latitude	Influence Factors(Item)
Product	Product FunctionA1 1.Maneuverability ; 2.Stability; 3.Security	Communication	Advertising and PromotionC1 19.The authenticity of brand advertising content,; 20.The extent of sales promotion and discount
	Environmental protection A2 4.Fuel Consumption ; 5.Environmental protection		Brand PublicationC2 21.The media evaluation and attention; 22.The evaluation of brand; 23.The consumption group of brand orientation; 24.The market share of brand
	Product configuration A3 6.Interior trim; 7.Configuration; 8.Electronic equipment; 9.Appearance design; 10.Color; 11.The size of interior		PriceC3 25.The publication of price, maintenance, parts; 26. Price stability; 27.The cost performance
Reputation	Manufacturer reputationB1 12.Country of origin for brand; 13.The manufacturer capability; 14.The image of auto manufacturer; 15.The manufacturer integrity	Service	After- serviceD1 28.Feedback for customer complaint; 29. The integrity of after-sales and maintenance; 30.The consistency of pre-sale and after service; 31.Follow-up service and visit; 32.The rate of maintenance
	The credibility of car franchiserB2 16.sales environment; 17.The image of car franchiser; 18.The integrity of car franchiser		Sales service D2 33.Products information training ; 34. The service quality of seller; 35. The competence and experience of seller; 36.The service attitude of seller

3.2. The Empirical Study

3.2.1 The samples collection

After making a corresponding adjustment to the questionnaire of exploratory research, the authors carries out a wide range of questionnaire for customers who are using the 9 brands (Camry, Accord, Mondeo, Mazda 6, Excelle, Elantra, Focus, Corolla, Peugeot, which are the representative brands that have a high market share in China's intermediate sedan market). In this survey, there are 420 valid questionnaires back within 500 questionnaires are distributed. Male is 72.6%, Female is 27.4%. Less than 30years old is 12.1%, 31-40years old is 33.6%, 41-50years old is 31.7%, 51 years old above is 22.6%. The 4000 RMB less of per capita monthly household income is 13.8%, the 4001-6000 is 40.2%, the 6000-8000 is 28.6%, the 8000 above is 17.4%. Government staff is 28.9%, institution staff is 28.9%, enterprises staff is 29.5%, entrepreneur is 10.7%. From education background, High school is 11%, College is 29%, Undergraduate is 41.2%, Master or above 18.8.

The formal study of data is analyzed in econometric model and descriptive statistics by applying to the SPSS15.0 and AMOS7.0 statistical software, meanwhile, using the AMOS7.0 statistical software to amend the research assumptions and model.

3.2.2 Model verification

The formal research calculates the measurement index of the average value and standard deviation by using SPSS15.0 statistical software. All measurement indexes of standard deviation is larger than 0.5^[9]. Each reliability coefficient of latitude is over 0.8, which shows high reliability of the data.

From the analysis of convergent validity, the majority of each index in the corresponding variable load is over 0.5, and reaches the significant or more significant level of statistics. The correlation coefficient between each factor is low, indicating that each factor has high distinction validity. From the aspect of goodness-of-fit test, the chi-square statistic with degrees of freedom in the ratio of 2.471, Norms Fit Index (NFI) is 0.834, Comparative Fit Index (CFI) is 0.815, Incremental Fit Index (IFI) is 0.825, the Approximate Mean Square Root Errors (RMSEA) is 0.078, (PNFI) is 0.510

(PCFI) is 0.566, P value is 0.000, which are all in the ideal and less ideal state.

Table2 . Standardized factor loadings

relation	Standard Coefficient	Standard Deviation	T-value	P	relation	Standard Coefficient	Standard Deviation	T-value	P
A3←p	0.467	0.055			E13← Perceptual	0.779	0.051	8.514	***
A2←p	0.478	0.049	3.019	0.003	D2←s	0.800	0.055		
A1←p	0.420	0.050	2.714	0.006	D1←s	0.399	0.050	3.290	0.037
B2←r	0.726	0.050			E21←emotion	0.613	0.041		
B1←r	0.585	0.058	6.482	***	E22←emotion	0.747	0.042	7.493	***
C3←c	0.432	0.049			E23←emotion	0.694	0.045	7.269	***
C2←c	0.600	0.049	5.035	***	E31←social	0.512	0.049		
C1←c	0.683	0.047	5.267	***	E32←social	0.634	0.051	5.472	***
E11← Perceptual	0.643	0.044			E33←social	0.616	0.052	5.408	***
E12← Perceptual	0.733	0.048	8.252	***					

3.2.3 Analysis of structural model

The structural model is the model of describing the quantitative relationship among different latent variables (concept).The analysis of structural model mainly investigates how influences paths relations among the different latent variables (concept), and then detects or corrects the formal research assumption and model.

In this research, the endogenous latent variables include perceptual experience, emotional experience, social experience, and exogenous latent variables include product factors, the communication factor, reputation factors and service factors.

Each latent variable in the SEM is tested by a few measurement items, when each latent variable with multiple indexes is under the structural equation analysis, it maybe lead to reduce the fitting degree of the model because the mathematical calculation of the structural equation is too complicated and too many estimated parameters. By the previous factor analysis of the results and the results of each variable analyzed for confirmatory factor show that the validity built can reach the acceptable standard, so it is reasonable for a single measure index instead of multiple indexes. In recent years, for applications of structural equation model, many scholars adopt some alternative ways to avoid the instability problem for model caused by small quantity of samples or too much measurement items. Considering that there are too many measurement items to analyze all indexes in this present study, in order to ensure the degree of freedom, it is better to adopt the way of a single measure index than multiple measure indexes. By using measuring items of public factor scores to analyze the structural equation as an obvious index

3.2.4 The path and Effects Analysis

Through the analysis of structural equation model, it is seen that the path coefficient among each latent variables and the factor loadings between index and latent variable. The factor loading of each latent variable is above 0.5, the T value is over 2, showing that the items of questionnaires that are being disposed can reflect the corresponding latent variable so well.

The direct path analysis: in order to thoroughly understand the relations of variables path and the verification of research hypothesis, this study further makes an analysis and comparison of the path. As mentioned before, the interaction model has a good fit state showing a very high goodness of fit of the relationship between the latent variables of the model and the actual data. And the interaction model is more frugal one, based on this above; this study first analyzes the direct path coefficients of latent variables. The path coefficients adopt standardized coefficient, the larger value indicates a higher importance in the path relations.

Table3. Path coefficient and result

No.	relation			Standardized estimated value	T-value	P	result
H404	Perceptual	<---	r	0.310	2.482	0.013	support
H407	Perceptual	<---	c	0.501	3.692	***	support
H401	Perceptual	<---	p	0.154	1.331	0.018	support
H408	emotion	<---	c	0.139	1.885	0.020	support
H411	emotion	<---	s	0.121	1.826	0.029	support
H413	emotion	<---	Perceptual	0.419	2.815	0.005	support
H403	social	<---	p	0.189	1.797	0.022	support
H406	social	<---	r	0.121	1.675	0.037	support
H409	social	<---	c	0.319	1.789	0.024	support
H414	social	<---	emotion	0.317	2.241	0.025	support

In order to have a better understanding of the relationship between the latent variables, this study also compares the effects of the potential variables so that it could fully and clearly explain the relationship between the variables. The effects of potential variables including Direct Effect, Indirect Effect (which considers that the indirect effects via other intermediate variables) and undecomposed effects (if there is correlation between the two variables, but when a common front variable can not be found in the model, then it is called that there is the undecomposed effects between these two variables), etc.

Table4 .The direct effects, indirect effects and the total effect of customer experience

Customer Experience Latitude	Effect	Product Latitude	Reputation Latitude	Communication Latitude	Service Latitude
Perceptual Experience	Direct Effect	0.154	0.310	0.501	
	Indirect Effect				
	Total Effects	0.154	0.310	0.501	
Emotional Experience	Direct Effect			0.139	0.121
	Indirect Effect		0.130	0.210	
	Total Effects		0.130	0.349	0.121
Social Experience	Direct Effect	0.189	0.121	0.319	
	Indirect Effect	0.014	0.041	0.11	0.038
	Total Effects	0.203	0.162	0.430	0.038

Research Conclusion and Revelation

4.1.Research Conclusion

(1) The main factors that affect the customer experience of car market are product factors, credibility factors, communication factors and service factors. Customer's Perceptual feeling has a positive influence on customer's emotional experience which also has a positive influence on customer's social experience.

(2) Product is the most important factor in terms of perceptual experience, which includes the car's maneuverability, security, stability, fuel consumption, environmental protection, configuration, interior trim, electronic equipment, the space and appearance of the car, etc. Second is Reputation, which includes the country of origin of the car manufacturers, the capability, image and integrity of the manufacturers, the sales environment, image and credibility of the car franchisers. Communication is the most important factor for emotional experience, which consists of the authenticity of advertising, promotional activities, the evaluation and attention of mass media, the evaluation of car brand, the consumption group of car brand orientation, the market share of car brand, price stability and publication, etc. Next is the service, which contains the quality of service and attitude of the sales staff during the whole process, related knowledge training, timely and speedily after service, the consistency and integrity service of pre-sales and after-sales. Then is the latitude of credibility. Communication is the most important influence factor from social experience,

followed by product and credibility.

(3) There is no significant difference in the customer's perceptual experience, emotional experience and social experience between female and male customers; but there is significant difference in social experience on the customer's age, the older age of customers, and the more positive chance of the social experience; There is also another significant difference in social experience regarding the occupation of customers, the men who works in government agencies and public institutions have a higher opportunity to have social experience than the staff who are in enterprise or individual businessman. What's more, there are no differences among perceptual experience, emotional experience and social experience in terms of the family per capita income and customer's education background.

4.2. The Main Revelation

(1) The customer experience is an effective approach to enhance the product brand assets of enterprise.

(2) There are 36 experience points of four main aspects: product, reputation, communication, and services for car production enterprises to build customer experience.

(3) The enterprises launch differentiated marketing by identifying the key demographic variables.

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