

Research on the Influence of Marketing Activities on Customer Assets of Light Industrial Products

Xiaoyan Ma, Jian Xue, Peng Wang

School of Economics and Management, Shaanxi University of Science and Technology, Xi'an, China

Abstract: Customer acquisition, maintenance and promotion have become one of the most important marketing objectives of enterprises. Existing research shows that the effective implementation of marketing activities has a significant impact on customer acquisition and promotion. But what about the impact of different marketing activities on customer assets? Through constructing the structural model of the influence of marketing activities on customers for light industrial products, this paper explores the difference of the influence of different marketing activities on customers for light industrial products. The empirical results show that advertising, short-term promotion and perceived price have the greatest effect on customer retention of light industrial products, and the effect of advertising is greater than that of short-term promotion and perceived price. This provides a theoretical basis for enterprises to implement different marketing activities, and has an important reference role for customer maintenance and upgrading of light industrial products customers.

Key Words: Marketing Activities; Customer Assets; Light Industrial Products; CLC Number: F270; Document Identification Code: A

1. Theoretical Review and Research Hypothesis

1.1 Customer Assets

Customer assets are the sum of the discounted present value of the lifetime value of all customers of an enterprise [1]. Only when customers who purchase for the first time continue to make repeated purchases or even cross purchases can profits be brought to the enterprise. Rust (2000) developed a driving factor model of customer assets, and gave the driving factors and sub-drivers. Subsequently,

Katherine N. Lemen proposed an analysis of driving factors of customer assets in 2001 [2], and believed that customer assets were composed of three driving factors: value assets, relationship assets and brand assets. What affects value assets are product quality and service quality, price, and convenience. What affects brand assets are customers' brand awareness, attitudes towards the brand and customers' feelings towards brand ethics. What affects relationship assets are frequent return activities, special rewards and special treatment activities, networking and emotional exchange activities, customer group activities, knowledge learning activities. Rust, Zeithaml and Lemon (2001) believe that as long as the most important assets in the enterprise are identified, the enterprise can improve the corresponding assets through the implementation of marketing strategies, thus improving the overall customer assets of the enterprise.

The lifetime value brought by different customers to the enterprise is not equal, that is, different customers bring different contributions to the enterprise. Therefore, it is necessary to identify and manage the customer groups that bring different value to the enterprise. Customer assets are subdivided, and the most representative one is the customer pyramid model proposed by Rust, Zeithaml and Lemon (2000), which divides customers into the bottom-up level of heavy lead layer, light industrial products, gold layer and platinum layer based on their current and future profitability.

1.2 Marketing Activities

Marketing activities are a process in which enterprises take customer needs as the starting point, obtain customer demand and purchasing power information according to experience, organize various business activities in a planned way, and provide customers with satisfactory goods and services through coordinated product strategies, price strategies, channel strategies

and promotion strategies to achieve corporate goals [3]. The definition of traditional marketing activities is mainly based on perceived quality, perceived price, advertising and so on. For example, Roland (2000) concluded through research that the final driving factors affecting customer assets mainly include perceived quality, perceived price, advertising, public relations, relationship marketing tools (planned frequent customer return activities, special rewards and special treatment activities, networking activities), and transfer costs (such as customer-knowledge learning activities, etc.) [4]. Bolton et al.(2004) believes that the following six marketing tools are related to the driving factors of customer assets, namely perceived price, service quality plan, direct marketing, relationship marketing tools, advertising and communication, and distribution channels [5].

With the rapid development of social economy and technology, the rise of high-tech technologies such as network technology, database technology and artificial intelligence, the marketing activities of enterprises have also changed one after another. For example, Tom Duncan (2006) argues that marketing media is a combination of various types of information communication tools used to build a brand, and there are seven types of marketing media tools: advertising, direct marketing, public publicity, sales promotion, personal sales, packaging, and customer service [6]. At the same time, Wang Lei (2006) selected seven elements of marketing activities based on 4Ps, namely perceived quality, perceived price, advertising input and price promotion, distribution density, store image and service quality of store personnel [7]. In recent years, after-sales service and short-term promotion have been paid more and more attention by enterprises, which directly or indirectly affect the profits of enterprises. Relationship marketing and corporate social responsibility are also being paid more and more attention by enterprises, which play an important role in establishing friendly relations with customers.

After reviewing the literature, this paper selects seven marketing activities that are obviously related to increasing customer value: perceived price, perceived quality, short-term promotion, advertising, after-sales service, relationship marketing, and corporate social responsibility.

1.3 Research Entry Point

At present, the purpose of the research of the marketing architecture school of customer assets is to explore the mode of action of marketing activities on customer behavior and the relationship between marketing activities and customer assets, and to explore the influence of customer-oriented marketing activities on customer behavior. It is found through literature reviews that based on the different research emphases, this school mainly explores three perspectives: resource allocation, marketing budget and marketing activities. The representative figures are: Blattberg(1996), Berger, Bolton(2002), Paul D. Boerger, Nada(2001), Bolton, Ruth N.emon, Katherine (2004), Bruhn (2008) and so on. However, most studies on the view of marketing activities tend to consider the impact of a single marketing activity on customer assets and performance, through which marketing activities affect customer purchase behavior, and then affect customer assets. Few studies consider the impact on customer assets from the perspective of integrated marketing activities.

This paper studies the customer assets of light industrial products. According to Zheng Hao's division of the life cycle of customer relationship, the development of customer relationship can be divided into four stages: investigation period, formation period, stable period and degradation period. The customers of light industrial products lie in the investigation period of customer relationship, which is the gestation period of customer relationship and forms the initial source of enterprise customers, hence holding an important position. At this stage, customers will try purchasing enterprise products and services. If customer value is greater than customer expectation, customers will be satisfied. According to the research results of Mittal et al., satisfaction will drive customers to make continuous purchases and repeat purchases, that is, the value of customers to the enterprise increases. If customer satisfaction is maintained, the customer relationship will successfully pass the investigation period and enter the formative period. At this stage, customer assets of light industrial products are mainly measured through customer satisfaction and improvement of customer value.

Identify the impact of different marketing activities on customers of light industrial

products, make timely strategic adjustments, and help enterprises improve customer assets. Therefore, this paper constructs a conceptual model of the impact of marketing activities on customers of light industrial products, as shown in Figure 1.

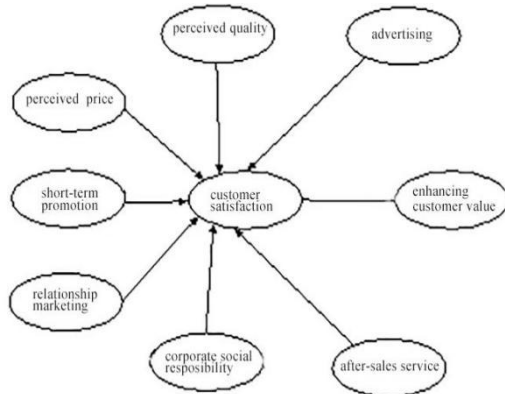


Figure1. Conceptual Model of the Impact of Different Marketing Activities on Customer Assets

2. Research Hypothesis

2.1 Influence of Advertising

For customers of light industrial products, they are in the investigation period of customer relationship life cycle. Enterprises can promote product brand information to customers through advertisements. Meanwhile, customers will also know some information about competitors' products. Ambler et al.(2002) believes that advertisements can create brand cognition, brand association and brand preference. Advertising can potentially increase customer value [8]. Neslin, Powell and Stone(1995) believe that the promotion of product brands by advertisements will reduce customers' sensitivity to price, and a large number of advertisements will stimulate customers' purchase of products [9]. The author thinks that for customers of light industrial products, the influence of advertising is to drive customers' purchase behavior indirectly by reducing their sensitivity to price, and then affect customer assets. Therefore, the effect of advertising is weaker than that of perceived prices and short-term promotions. Therefore, assume that:
H1: Advertising has a strong positive impact on customer assets of light industrial products.

2.2 Influence of Perceived Quality

Anderson Fornell, Lehmann (1994) [10] believed that perceived quality positively affected

customer satisfaction. High perceived quality not only positively affects customers' word-of-mouth recommendation behavior, but also has a certain impact on customers' repeated purchase behavior and cross-purchase intention. Therefore, assume that:

H2: Perceived quality has a positive impact on customer assets of light industrial products.

2.3 Influence of Perceived Price

The price referred to in this article refers to the perceived price, not the objective price. Bolton and Lemon(1999) believe that perceived price has a positive impact on customers' purchase times, and high perceived price will lead to high customer satisfaction [11].

In the investigation period of customer relationship life cycle, customers of light industrial products still have a low sense of trust for the enterprise, and their repeated purchase behavior is mainly due to the low perceived price of the product. All these factors will lead to the low tolerance of light industrial product customers to the product price. It can be considered that perceived price should be an important driving factor for influencing customers of light industrial products. Therefore, assume that:

H3: Perceived price has a positive impact on customer assets of light industrial products.

2.4 Influence of Short-Term Promotion

Short-term promotion is usually the use of price discounts and other economic benefits to attract customers to buy. In the short term, promotion will increase the perceived price in the minds of customers and make customers satisfied. Godin and Peppers(1999) believe that short-term promotion will increase customers' sensitivity to price, thus damaging customer satisfaction and loyalty [12]. The author believes that in the short term, short-term promotion will increase the perceived price of customers, but in the long term, the impact of short-term promotion on customer satisfaction and customer loyalty is gradually weakened. Therefore, assume that:

H4: Short-term promotion has a weak positive effect on customer assets of light industrial products.

2.5 Influence of Relationship Marketing

Marketing activities that provide social benefits indirectly affect the relationship between customers and enterprises, but its impact may

be small. The establishment of a good relationship with customers mostly happens after the transaction, and the effect of economic benefits provided by relationship marketing occurs at a later stage, and only when the loyalty relationship between customers and enterprises reaches a certain level will enterprises fulfill their promises. Therefore, in the investigation period of customer relationship life cycle, the driving factor of relationship marketing is not the focus of influencing customers of light industrial products. Therefore, assume that:

H5: Relationship marketing has a weak positive impact on customer assets.

2.6 Influence of Corporate Social Responsibility

Zhou Yanfeng (2007) and others proved that enterprises' active behavior of taking social responsibility has a positive impact on the evaluation of corporate reputation [13]. For enterprises that actively undertake social responsibility, customers' evaluation of corporate reputation is much higher than that of enterprises with negative social effect. Whether enterprises actively undertake social responsibility has a direct impact on their long-term earnings (such as corporate reputation).

However, these influences are not the most important for customers of light industrial products, because they are still in the investigation stage of customer relationship life cycle, and the impact of perceived price and short-term promotion is far greater than that of corporate social responsibility(CSR). Customers pay more attention to the price and quality of products. The impact of CSR as a driver is not the focus of customers of light industrial products. Therefore, assume that:

H6: Corporate social responsibility has a weak positive impact on customer assets of light industrial products.

2.7 Influence of After-sales Service

Kerin (1992) and others pointed out that providing high-quality after-sales service can make customers have a positive perception of the enterprise's products, and the positive perception can be transmitted to customers' perception of the quality of other types of products from the enterprise, and then generate word-of-mouth recommendation value [14]. Although the quality of after-sales service

affects customers' repeated purchase and cross-purchase of products in the future, customers in the category of light industrial products purchase less quantity or times and are in the tentative stage, so their purchase behavior is greatly influenced by word-of-mouth communication. The author thinks that high quality after-sales service has a weak influence on customers of light industrial products. Therefore, assume that:

H7: After-sales service has a weak positive impact on customer assets of light industrial products.

3. Research Design

3.1 Questionnaire Design

A questionnaire survey was used to collect data. Marketing activities in the model include 7 latent variables: advertising, perceived quality, perceived price, short-term promotion, relationship marketing, corporate social responsibility and after-sales service. The questionnaire design mainly constructs observation indications for 9 latent variables including the above 7 ones in marketing activities, customer satisfaction and improvement of customer value. The scale used is based on the mature scale found in relevant research literature at home and abroad. In order to make the questionnaire more suitable for this study, the author has further modified the questionnaire through interviews with relevant personnel. The questionnaire is divided into two parts. The first part is background information and adopts multiple choice method. The second part is the main part and all the items are Likert 5-level scale.

In order to ensure the reliability and validity of the questionnaire, a pre-survey was conducted among 30 customers, and the measured items were improved according to the feedback results to make the questionnaire clear and easy to understand. In addition, correlation analysis was also done to eliminate the measurement items with ITT coefficient less than 0.35 to ensure that Cronbach's Alpha coefficient was greater than 0.70, and then a formal questionnaire was finally formed.

3.2 Obtaining Data

The industry selected for the survey is banking, and the target subjects of the survey are bank card holders. The questionnaire is distributed in

two ways. First, it is distributed in major commercial bank outlets in Xi 'an. The survey is conducted on spot where the questionnaires are filled in and withdrawn. Second, an online questionnaire is designed on a famous research website. In order to test whether there are significant differences in the sample data obtained by the two approaches, multiple T-tests are also conducted on the samples. The results show that there is no significant difference between the two groups of sample data. A total of 413 questionnaires are collected by the two methods, and the recovery rate reaches 82%. There are 338 valid questionnaires. The descriptive analysis of respondents' survey results is shown in Table 1.

Table 1. Basic Description of Sample Data

Variable	Indicator	Ratio %	Variable	Indicator	Ratio %	Variable	Indicator	Ratio %
Gender	male	48.8	career	enterprise employees	58.7	Banks	ICBC	29.6
	female	51.2		Government employees	9.8		China Construction Bank	20.9
Monthly Income / RMB	0-1500	2.0		staff of government affiliated institutions	11.1		Bank of China	10.4
	1500-3000	29.8		students	11.3		Bank of Communications	9.1
	3000-4500	26.6		Others	9.1		Agricultural Bank	13.3
	4500-6000	30.5	Recommended by friends	18.9	China Merchants Bank		8.6	
	6000-8000	11.1	Advertising Impact	16.3	Everbright Bank		2.0	
Education level	Junior high school and below	2.0	Channels	Visit to bank websites	10.6		Industrial Bank	1.0
	High school or secondary school	12.6		bank activities	21.2		Pudong Development Bank	0.7
	College degree	26.8		Payroll card by employers	25.9		China CITIC Bank	2
	Bachelor and above	58.6		others	7.1	Other Banks	2.4	

Reliability test. The analysis results are shown in Table 2. The results show that the Cronbach coefficient of the measured variables is more than 0.70, which is greater than the required 0.60, indicating that the measurement scales have good reliability.

3.3 Reliability and Validity Test

Reliability test. The analysis results are shown in Table 2. The results show that the Cronbach coefficient of the measured variables is more than 0.70, which is greater than the required 0.60, indicating that the measurement scales have good reliability.

Table 2. reliability test results

Latent variable	Coefficient α	Latent variable	Coefficient α
Perceived	0.78	After-sales	0.79

Quality		service	
Perceived Price	0.74	Corporate Social Responsibility	0.85
Short-term promotion	0.74	Customer satisfaction	0.79
Advertising	0.82	increased customer value	0.76
Relationship marketing	0.71		

Validity test mainly evaluates content validity and construction validity. The questionnaire scales are all modified by referring to domestic and foreign mature scales combined with expert suggestions, so they have good content validity. The combination reliability ρ_c and mean

extraction variance (AVE) were calculated by the factor load values using AMOS7.0. The results show that the values of all observed variable ρ_c are greater than the required 0.60 standard, and the AVE value is also greater than the required 0.50, indicating good convergence validity. By comparing the correlation coefficient between the square root of AVE and each variable, the results show that the square root of AVE of each observed variable is greater than the correlation coefficient between each measured variable, which further indicates that the discriminant validity of each observed variable scale is good. The values of the structural equation model χ^2 / df are less than 3, CFI=0.988, TLI=0.983, RMSEA=0.019, and GFI=0.910. It can be seen from the test of fitting index that all meet the discrimination criteria, indicating that the model is well fitted and can well verify the hypothesis.

4. Hypothesis Testing and Result Analysis

AMOS7.0 software is used to test the hypothesis. According to the results of confirmatory factor analysis, the initial model has several non-significant path coefficients, and it was necessary to calculate the correction index (MI) to correct the model. After removing the correction index with the largest path coefficient, the fitting of the structural model is evaluated by comparing the fitting index. After modification, the value P is 0.015, and the ratio between Chi-square value and degree of freedom is less than 2, and the RMR value of the model is 0.050, and the RMSEA value is

0.038, and the fitting index TLI, CFI, IFI, and GFI of the model are 0.929, 0.943, 0.947, and 0.845, respectively, which all meet the criterion of fitting index. It shows that the data fit the model well. The structural model and test results are shown in Table 3 and Figure 2.

Table 3. Model Test Results

hypothesis	path relationship of marketing strategy mix and customer satisfaction	Path coefficient	T value	Supported or not
H1	advertising → customer satisfaction	0.500	7.810 ^{***}	Supported
H2	Short-term promotion → customer satisfaction	0.582	4.855 ^{***}	Supported
H3	perceived Price → customer satisfaction	0.535	6.862 ^{***}	Supported
H4	perceived quality → customer satisfaction	0.434	3.960 ^{**}	Supported
H5	After-sales service → customer satisfaction	0.261	1.739 [*]	Supported
H6	relationship marketing → customer satisfaction	0.067	3.009 ^{**}	Supported
H7	corporate social responsibility → customer satisfaction	0.179	4.102 ^{***}	Supported

Note: * indicates that P value is less than 0.1; ** indicates that P value is less than 0.05; *** indicates that P value is less than 0.01;**** indicates that the P value is less than 0.001.

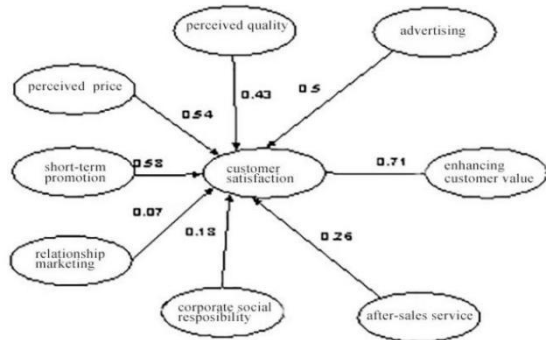


Figure2. Structural Equation Test Model

According to the analysis, the corresponding path coefficient values of all research hypothesis shown in the model are positive, which is consistent with the previous research hypothesis in the direction. Among them, the path coefficient T values corresponding to H1, H2, H3, H4, H5, H6 and H7 are 5.682, 2.716, 3.842, 3.169, 4.208, 4.344 and 2.007, respectively. It is shown that the path coefficient T value is significantly greater than 0 at the significance levels of 0.001, 0.001, 0.001, 0.001, 0.1, 0.01 and 0.001, respectively, that is, the sample data support the research hypothesis H1, H2, H3, H4, H5, H6 and H7 at different significance levels.

As can be seen from Figure 2, the impact of seven marketing tools on customer assets of light industrial products is successively as follows: advertising, short-term promotion, perceived price, perceived quality, after-sales

service, relationship marketing, and corporate social responsibility. Therefore, advertising has the greatest impact on customer assets of light industrial products, followed by short-term promotion and perceived price. In addition, perceived quality and after-sales service also have a certain degree of impact on it, and relationship marketing and corporate social responsibility have a lesser impact. The hypothesis of the influence of the above 7 marketing tools on the customer assets of light industrial products has been verified.

5. Research Conclusions and Implications

5.1 Research Conclusions

Through empirical study, this paper systematically studies the influence of different marketing activities on customers of light industrial products. For the customers of enterprises, advertising, short-term promotion and perceived price have the greatest effect on their maintenance, and the role of advertising is greater than that of short-term promotion and perceived price. Secondly, perceived quality and after-sales service also have a certain impact on customers, while relationship marketing and corporate social responsibility have a lesser impact. The corresponding strategy is to increase the investment in advertising, develop attractive advertisements, and expand the influence of publicity. Develop personalized advertising programs so that customers can know and understand more about enterprise product information and their demand and desire for enterprise products be better stimulated. The second is to strengthen the promotion strategy and price strategy, mainly through the "price discount" to stimulate consumers' desire to buy; Finally, the quality of products and services should be improved so that customers in the light industrial products category can be maintained or further promoted.

5.2 Innovation and Deficiency

Innovation of this paper is demonstrated as follows: the structural model of the influence of marketing activities on customers of light industrial products is established; the influence of marketing activities on customers of light industrial products is compared and analyzed, and the influence of different marketing activities is proved to be different. However, there are also some limitations in the research.

Although the selected marketing activities are representative enough, they cannot represent all marketing activities. The selection of survey sample data is limited by human resources, economic costs and other objective factors. There is also limitation for the selection of samples to a certain extent only in the survey for bankcard holders.

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