The Relationship between Supermarket Brand Image and Customer Loyalty

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Abstract

From the perspective of customers, this paper analyzes the customer behavior of large supermarkets in Nantong, extracts various influencing factors that affect customer loyalty in large supermarkets in Nantong, establishes a conceptual model of influencing factors of customer loyalty, and puts forward research hypotheses. Finally, on the basis of drawing on mature scales, a questionnaire is designed, and the questionnaire is distributed in the way of actual investigation to collect relevant data. By using SPSS19.0 software to carry out validity and reliability analysis and correlation analysis on the survey data, the research hypothesis was verified. This study has certain reference significance for improving the customer loyalty of large supermarkets in Nantong area.

Keywords

Nantong Area; The Hypermarket; Customer Loyalty; Brand.

1. Introduction

Hypermarkets are an important part of the retail industry, accounting for 5% of overall retail sales. In the early stage of the development of large supermarkets, they were mainly concentrated in the developed coastal cities. The local supermarkets in my country entered a period of rapid development in 1995. Until now, large supermarkets have gradually developed from a new format to a main format. With the continuous development of the economy, the types of commodities operated in supermarkets and the services provided to customers gradually tend to be homogenized. Large supermarkets are faced with the development dilemma of low customer loyalty rate and high churn rate. In order to get out of the development predicament, many large supermarkets resort to price wars and advertising wars to attract customers, but the effect is not obvious. The reason is that these large supermarkets do not pay attention to maintaining customer loyalty, and the won customers are quickly taken away by other supermarkets. Many brands have suffered losses.

This paper is mainly from the perspective of customer perception, taking large supermarkets in Nantong area as the research object, based on the relevant theories of customer satisfaction and customer loyalty, focusing on the relationship between various influencing factors and customer loyalty, and constructing large supermarkets accordingly. A conceptual model of factors influencing customer loyalty. Because the previous papers have little research on regional customer loyalty, this paper combines the actual development of large supermarkets in Nantong to try to reflect the influencing factors of customer loyalty more comprehensively.

2. Theoretical Background and Assumptions

2.1. Theoretical Background

According to the definition of the concept of customer loyalty, it can be found that customer loyalty is the unity of customers' own emotions, attitudes and frequent buying behaviors, so there are many factors that will affect customer loyalty. The formation system of customer loyalty is complex and relatively stable. According to the influencing factors of customer loyalty,

combined with the emphasis on supermarket preferences of large supermarket customers in Nantong area and the consumption behavior of large supermarket customers, this paper will mainly study the relationship between customer loyalty and brand image of large supermarkets in Nantong area.

The concept of customer satisfaction is a relatively new term in the field of marketing, which is represented by CS. The academic definition of customer satisfaction is mainly developed from two different directions. One direction is to consider from the perspective of perceived state, and consider that customer satisfaction is a perception result formed by customers in the process of consumption[1]. Another direction to define customer satisfaction is to consider it from the perspective of dynamic process, that customer satisfaction is the comprehensive evaluation of consumers on the whole consumption behavior. Among them, Blaeytell and Engel (1952) believed that when customers make consumption, they will compare the consumption experience at this time with the previous consumption experience, and if they are consistent, they will be considered satisfied.

Scholars at home and abroad have done a lot of research on the definition of customer loyalty, but so far, there is no unified view on the definition of customer loyalty. The evaluation of customer behavior opened people's research on customer loyalty. Previous scholars proposed that customer loyalty is the repeated purchase of a product or service that has been purchased before (Jacoby, Chestnut, 1988)[2]. In recent years, many scholars are more inclined to customer loyalty is an attitude of customer psychology, which will have an impact on customer consumption behavior. Therefore, some scholars propose that the customer attitude orientation can be used to study customer loyalty. They believe that the customer's attitude orientation towards a certain product or service can indicate whether customers are actively inclined to buy a certain commodity (Ajzen, Fishbein, 1975)[3]. A commitment that reflects the customer's preference for the product or service and its positive recommendation (Cremler, Brown, 1996)[4]. Repeated purchases of a product have a positive attitude tendency to be considered customer loyalty (Dick, Basu, 1994)[5].

2.2. Hypothesis

2.2.1. Hypothesis on the Relationship between Brand Image and Customer Loyalty

Brand expert Keller (1993) defined the definition of brand image: brand image refers to an overall impression formed by customers on a brand in their minds[6]. Fornell (1992) believes that the influence of brand image on customer loyalty is achieved through the intermediary variable of customer satisfaction. As a cumulative function of consumers in the experience process, brand image will have an impact on customer satisfaction evaluation[7]. If consumers are satisfied with the product or service, it will improve their attitude towards the brand, thereby enhancing customer loyalty. Brands with lower brand awareness have fewer loyal consumers (Hauser, Wernerfeldt, 1990)[8]. Andreasen et al. (1998) pointed out that brand is the main driving force for the formation of customer loyalty, which directly affects the future purchase intention of customers[9]. Mark A Farrell (1995) believes that when customers are shopping in supermarkets, they will feel the existence of brand culture through brand logos, brand promotion and other channels, and a good brand culture will affect people's attitudes, emotions and repeated purchase behavior. positive influence[10]. Oliver (1999) believes that the formation process of customer loyalty is a process of receiving and processing information, and brand reputation, as a part of information, can have different effects on customers. The current market competition is very cruel, and large supermarkets need to have a good reputation in order to attract and retain customers (Grewal, Baker, 1998). A good brand reputation is an intangible capital that can bring unimaginable economic benefits to the brand. Therefore, this paper proposes the hypothesis:

H1a: The better the brand, the more loyal customers

H1b: The better the brand culture, the more loyal customers

H1c: The better the brand reputation, the more loyal customers

2.2.2. Hypothesis on the Relationship between Brand Image and Customer Satisfaction

The brand of the brand often becomes the basis that directly affects the customer's purchasing decision and post-consumer evaluation, and customers can perceive the purchase risk through the brand image. Mitchell believes that the lower the risk that customers perceive when they go to a store, the more satisfied they are with the store[11]. Mark A Farrell of Charles Sturt University believes that when customers are shopping in large supermarkets, they will feel the existence of brand culture from various aspects such as supermarket logos, supermarket services, and brand promotion. This invisible force will have an impact on customers' shopping behavior. Subtle effect, affecting their satisfaction with shopping in large supermarkets[12]. Brand reputation has a great influence on customer satisfaction (Martensen, 2000). Brand reputation is a kind of rational cognition and emotional tendency of stakeholders to the brand, and this emotional tendency will be expressed as customer satisfaction or not. The findings of the China Retail Research Center also show that the reputation of a supermarket has a significant impact on customer satisfaction.

Therefore, this paper proposes the hypothesis:

H2a: The better the brand, the more satisfied the customer is

H2b: The better the brand culture, the more satisfied customers are

H2c: The better the brand reputation, the more satisfied customers

2.2.3. Hypothesis on the Relationship between Customer Satisfaction and Customer Loyalty

Numerous empirical studies in consumer markets have shown that there is a positive relationship between customer satisfaction and customers' repeat purchase intentions (Fornell, 1992; Oliver, Swan, 1989; Taylor, Baker, 1994). Conceptually, in the retail market, higher satisfaction reduces the perceived benefits of customer switching behavior, which leads to stronger customer repeat purchase intentions. The results of our interviews with retail customers also show that the higher the customer satisfaction, the more word-of-mouth publicity, and the more frequent repeat purchase behavior and recommended purchase behavior.

Therefore, this study establishes the hypothesis:

H3: The more satisfied the customer is, the more loyal the customer is

3. Research and Research Methods

3.1. Questionnaire Design and Sample Collection

The content of this chapter is based on the previous theories, through SPSS19.0 statistical software to carry out empirical analysis of the data collected by the questionnaire, to test the research hypothesis proposed in 2.2, and to analyze the empirical results. This paper uses an online questionnaire survey method. This questionnaire is a 5-point Likert scale. The preliminary measurement items of the questionnaire are based on reviewing relevant literature and drawing on mature scales, and according to the actual situation of large supermarkets in Nantong, they are formed after appropriate adjustment.

The first part of the questionnaire is the personal information of the respondents. This part mainly includes 5 items: gender, age, education and monthly income. The second part is the influencing factors of customer loyalty in large supermarkets in Nantong area. This part is mainly about some specific measurement items. The third part is a survey project under the

customer loyalty of large supermarkets in Nantong area. This section includes 5 specific measurement indicators. The questionnaire is shown in Table 1.

Table 1. Survey Design

Variable	Measurement Item	Project Source
Brand	A1 This large supermarket is large and powerful, which affects my purchasing power	Wang Haizhong (2006)
	A2 This large supermarket has a long history and affects my purchasing power	
Brand Culture	A3 Shopping in this supermarket can make me feel the service concept of "customer first"	Bell (1996) Yang Jianjun (2008)
	A4 The supermarket is in good order and the management system is standardized	
	A5 supermarket staff dress uniformly, showing a good brand style	
Brand Reputation	A6 This large supermarket has a good reputation	Bell Yang Jianjun
	A7 The supermarket is well known	
	A8 This supermarket is very socially responsible	
Customer Satisfaction	B1 shopping experience in this large supermarket was pleasant	Brady.et.al.(2001)
	B2 I believe that shopping at this hypermarket is the right decision	
	B3 Overall, I am satisfied with this large supermarket	
Customer Loyalty	C1 I frequent this large supermarket	Zeithaml (1996) Morgan&Hunt(1994) Oliver (1997) Anderson et al.(1992)
	C2 I would choose this hypermarket for shopping even though other hypermarkets have slightly lower prices	
	C3 If I have shopping needs, I will still choose this supermarket	
	C4 I would recommend this hypermarket to others	
	C5 If there is a chance to choose again, I will still choose this large supermarket for shopping	

This paper takes the large supermarkets in Nantong as the research object, and mainly explores the factors that affect their customer loyalty. In order to make the sample more representative and local, five large supermarkets including Wenfeng Qianjiahui, RT-Mart, CP Lotus, China Resources Suguo and Tesco were selected for investigation. The distribution of supermarket sample characteristics is shown in Table 2.

A total of 200 questionnaires were distributed, 162 were recovered, the recovery rate was 81%, of which 134 were valid questionnaires, and the effective questionnaire rate was 82.7%. The descriptive statistics of the samples are shown in Table 3.

Table 2. Questionnaire distribution table of surveyed supermarket

Supermarket	Number of the Questionnaires	Percentage(%)
Wenfeng Qianjiahui	52	39
RT-Mart	47	35
Lotus Flower	11	8
China Resources Suguo	15	11
Tesco	9	7
Total	134	100

Table 3. Sample Descriptive Statistical Analysis Form

Project	Category	Number of samples	Percentage(%)
Gender	Male	63	47.0
	Female	71	53.0
Education level	High School/Secondary School/Technical School	42	29.1
	College	47	37.3
	Undergraduate	41	30.5
	Master	4	3.1
Monthly income	< 1500	5	3.7
	1500-3000	37	27.6
	3000-4500	46	34.3
	> 4500	42	34.4
Age	< 25	10	7.4
	25-35	13	9.7
	36-45	18	13.4
	46-55	47	35.1
	> 55	42	31.3

3.2. Reliability and Validity Analysis of the Questionnaire

3.2.1. Validity Test

In order to further improve the quality of the questionnaire, this study plans to use the exploratory factor analysis method in SPSS19.0 statistical software to judge the rationality of the internal structure of the questionnaire.

(1) Factor analysis of each variable

The KMO and Bartlett's test results are shown in Table 4. The KMO values are all greater than 0.7, indicating that the sample data are suitable for factor analysis; the Bartlett sphere test is significantly different ($p< 0.01$), indicating that the data correlation matrix is not a unit matrix, and has correlation Statistical data are suitable for factor analysis.

Table 4. Variable Significance\KMO Value

Variety	KMO value	Significance
Brand	0.867	< 0.001
Customer Satisfaction	0.742	< 0.001
customer loyalty	0.821	< 0.001

Items were screened using factor analysis. Principal component factor analysis was performed on 8 questionnaire items A1-A8 in the brand image, 3 factors were determined by default, and

they were rotated orthogonally, and the obtained factor analysis matrix was shown in Table 5. Since the common degree of each measurement item is greater than 0.7, according to the characteristic value greater than 1, the common degree is greater than 0.5, all items are reserved. In the end, a total of 3 factors were extracted for brand image. The loading of each factor was greater than 0.7, and the cumulative variance explained 82.794%. The total variance explained is shown in Table 6. According to the content of the items contained in each factor, the three factors are respectively called brand, brand culture, and brand reputation. The analysis results are in line with the previous conception.

Table 5. Three Scheme comparing

Project	Factor 1	Factor 2	Factor 3	Commonality
A5	.927	.106	-.041	.896
A4	.901	.067	-.215	.863
A3	.887	.142	-.146	.745
A8	.354	.846	-.027	.816
A7	.303	.819	.054	.753
A6	.439	.782	-.087	.792
A2	-.118	.076	.952	.923
A1	-.192	-.093	.914	.912

Table 6. Total Variation Explanation of Brand Image Questionnaires

Factor	Eigenvalues	Variance contribution rate (%)	Explanation rate (%)
1	3.542	35.189	35.189
2	1.924	26.129	61.318
3	0.938	21.476	82.794

Principal component factor analysis was carried out on the three questionnaire items B1-B3 in customer satisfaction, and the factor loading of each question option was obtained after the orthogonal rotation axis by the maximum variation method, as shown in Table 7. Table 7 shows that customer satisfaction has only one factor after factor analysis. This factor explains 83.781% of the overall variation. The analysis results are in line with the previous conception.

Table 7. Factor Analysis of Customer Satisfaction

Project	Factor	Commonality
B3	.927	.875
B2	.931	.869
B1	.894	.792
Eigenvalues		2.475
Variance contribution rate (%)		83.781
Explanation rate (%)		83.781

Principal component factor analysis was carried out on the five questionnaire items C1-C5 in customer loyalty, and after the orthogonal rotation axis was carried out by the maximum variation method, the obtained factor analysis matrix was shown in Table 8, and all the items were retained. The analysis results in Table 8 show that a total of 1 factor is extracted from customer loyalty, the factor load is greater than 0.7, and the cumulative variance explained is

70.946%, which shows that it has good construct validity, and the analysis results are in line with the previous conception.

Table 8. Factor Analysis of Customer Loyalty

Project	Factor	Commonality
C5	.869	.743
C4	.847	.830
C3	0.824	.721
C2	.731	.869
C1	.709	.727
Eigenvalues		3.461
Variance contribution rate (%)		70.946
Explanation rate (%)		70.946

3.2.2. Reliability Analysis

Reliability refers to the consistency of the results obtained by the same subjects using the same measurement tool or equivalent measurement tool repeatedly to measure a certain trait at different times or on different occasions. . In this study, the reliability of this questionnaire is understood by examining the α coefficient of homogeneity reliability. The alpha coefficient was calculated using the Cronbach formula for the entire sample as the internal consistency coefficient of the test. It can be seen from Table 9 that the coefficients of each factor are greater than 0.6, and the reliability of the total questionnaire has reached 0.869, indicating that the scale has good internal consistency.

Table 9. Reliability Analysis

Factor	Item	The value of Cronbach's alpha
Brand	A1 A2	.784
Brand Culture	A3 A4 A5	.835
Reputation	A6 A7 A8	.817
Cutomer Satisfaction	B1 B2 B3	.876
Customer Loyalty	C1 C2 C3 C4 C5	.901
Total		.869

3.3. Testing

3.3.1. Correlation Analysis

Table 10. Correlation analysis results

	Brand	Brand Culture	Reputation	Cutomer Satisfaction	Customer Loyalty
Cutomer Satisfaction	.647**	.178	.479**	1	.781**
Customer Loyalty	.629**	.135	.548**	.781**	1

It can be seen from the analysis results (see Table 10.) that brand reputation is significantly correlated with customer satisfaction and customer loyalty at the 0.01 level, and the correlation coefficients are all greater than 0.2, but brand culture has no relationship with customer satisfaction and customer loyalty. Significant correlation, the correlation coefficient is less than 0.2. It can be seen that hypotheses H1b and H2b have not been verified, and other hypotheses

have been preliminarily verified. Customer satisfaction and customer loyalty are also significantly correlated at the 0.01 level, and the correlation coefficient is greater than 0.2. Therefore, the hypothesis H3 proposed in this study was preliminarily verified.

3.3.2. Regression Analysis

In this paper, the regression analysis between brand image and customer satisfaction (Model 1), brand image and customer loyalty (Model 2), and customer loyalty and customer satisfaction (Model 3) was carried out respectively. The data are shown in Table 11 and Table 12.

Table 11. Model Summary

Model	R-square	Adjusted R-square	Estimated standard deviation
1	0.789	0.764	0.199
2	0.785	0.753	0.592
3	0.620	0.618	0.469

Table 12. Regression coefficient and Significance Coefficient Test Table

Model (Dependent variable)		Unstandardized coefficient		Standardized coefficient	t	p
		B	Standard error	Beta		
1 Customer Satisfaction	(constant)	1.328	.729		1.872	.004
	Brand	.203	.055	.212	3.685	< .001
	Brand reputation	.107	.028	.104	3.761	< .001
	Brand Culture	.092	.049	.081	1.949	.083
2 Customer Loyalty	(constant)	2.142	.707		3.008	.005
	Brand	.241	.064	.229	3.451	< .001
	Brand reputation	.139	.041	.137	3.348	.001
	Brand Culture	.051	.037	.043	1.571	.062
3 Customer Loyalty	(constant)	.721	.167		4.392	<.001
	Customer Satisfaction	.737	.041	.792	1.833	< .001

It can be seen from the two tables that the goodness of fit test of the regression equation is shown in Table 11. The R-square value of the coefficient of determination adjusted by model 1 is 0.764, which is greater than 0.5, indicating that the goodness of fit of the regression equation to the sample data is good, indicating that the brand , brand reputation, brand culture can basically explain the dependent variable customer satisfaction. At the same time, the R-square value of the coefficient of determination adjusted by model 2 is 0.753, which is greater than 0.5, indicating that the regression equation has a good goodness of fit for the sample data, indicating that brand, commodity price, brand reputation and brand culture can better explain the dependent variable customer loyalty. The R-square value of the coefficient of determination adjusted by the third model is 0.618, which is greater than 0.5, indicating that the regression equation has a good goodness of fit for the sample data, indicating that the dependent variable of customer loyalty can be more effectively explained by the independent variable of customer satisfaction.

The significance test of the regression coefficient can be seen from Table 12, the p-values of brand and brand reputation have reached a significant level of less than 0.05; at the same time,

the observed values of the t-statistics are all positive values, indicating that there is a relationship between these two variables and customer satisfaction. There is a very significant positive correlation, and the p-values of brand culture are 0.083, which are greater than 0.05, indicating that brand culture should not be retained in the regression equation, assuming that H1b (the better the brand culture, the more satisfied customers) cannot be established. Therefore, we can The following conclusions are drawn: Assuming that the tests of H1a and H1c pass, the hypothesis is true; assuming that the test of H1b fails, the hypothesis is not true.

The significance test of the regression coefficient can be seen from Table 12, the p-values of the brand and brand reputation have reached the significance level of less than 0.05, indicating that there is a significant positive correlation between customer loyalty. The p-value of brand culture is 0.062, which is greater than 0.05, indicating that brand culture has no significant impact on customer loyalty and should not be retained in the regression equation. Hypothesis H2b (the better the brand culture, the more loyal customers) cannot be established. Therefore, we can draw the following conclusions: Assuming that the tests of H2a and H2c pass, the hypothesis is true; the hypothesis of H2b fails the test, and the hypothesis is not true.

The significance test of the regression coefficient can be seen from Table 12, the p value of customer satisfaction is 0.000, reaching a significance level of less than 0.05; since the observed value of the t statistic is positive, it shows that there is a positive correlation between customer satisfaction and customer loyalty, The linear change of customer loyalty can be effectively explained by the variable of customer satisfaction.

3.3.3. Test Results and Model Corrections

Through correlation analysis test and regression analysis test, the hypotheses in the research have been verified except H1b: the better the brand culture, the more satisfied the customers; H2b: the better the brand culture, the more loyal the customers are. A summary of the hypothesis testing results is shown in Table 13.

Table 13. Hypothesis test results for each influencing factor

Serial number	Hypothetical content	Test result
H1a	The better the brand, the more satisfied the customer is	valid
H1b	The better the brand culture, the more satisfied customers are	invalid
H1c	The better the brand reputation, the more satisfied customers	valid
H2a	The better the brand, the more loyal customers	valid
H2b	The better the brand culture, the more loyal customers	invalid
H2c	The better the brand reputation, the more loyal customers	valid
H3	The more satisfied the customer, the more loyal the customer	valid

Therefore, the model is revised as brand and brand reputation positively affect customer satisfaction and customer loyalty, while customer satisfaction positively affects customer loyalty.

4. Conclusion

This paper studies the influencing factors of customer loyalty in large supermarkets in Nantong. The purpose and value of the research is to enhance the loyalty of large supermarkets in Nantong, and to provide reference for large supermarkets to make policy decisions. The main conclusions drawn through this research are: (1) The system model of influencing factors of customer loyalty in large supermarkets in Nantong area. This study draws on the theoretical

achievements of domestic and foreign scholars on customer loyalty, combined with the analysis of customer loyalty behavior of large supermarkets in Nantong, and proposes the conceptual model of this research. The data is obtained through questionnaires, and SPSS19.0 software is used to analyze the data, revised the conceptual model, and finally obtained the model of influencing factors of customer loyalty in large supermarkets in Nantong area. (2) The relationship between each influencing factor and customer loyalty. The better the brand, the more satisfied the customer; the better the brand reputation, the more satisfied the customer; the better the brand, the more loyal the customer; the better the brand reputation, the more loyal the customer; the more satisfied the customer, the more loyal the customer. The factors system model and other conclusions that affect the customer loyalty of large supermarkets in Nantong area obtained in this study have certain reference significance for large supermarkets to formulate strategies to enhance customer loyalty.

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