

An Empirical Study of the Relationship between Mall Environment, Satisfaction and Loyalty in the Home Store Context

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Keywords: Satisfaction, Attitude loyalty, Behavior loyalty, Mall environment.

Abstract. This study aims to find out the structural relationship between the mall environment, satisfaction and loyalty in home store, and the link between attitude loyalty and behavior loyalty. Satisfaction was measured using the Oliver scale, which was revised based on the actual situation of the home store. Data collection was conducted by means of interviews and questionnaires, and 1232 data were analyzed using SPSS statistical software. The study found that there is a clear positive relationship between satisfaction, attitude loyalty and behavior loyalty. There is a positive correlation between attitude loyalty and behavior loyalty. The mall environment has an impact on satisfaction, and further influences loyalty. This study contributed to the literature research and conducted empirical theoretical research on the formation of brand loyalty in the home store industry.

Introduction

Loyal customers are a guarantee for companies to survive and gain competitive advantage in fierce competition. Customer loyalty can help companies increase market share, increase revenue, and reduce operating costs [1]. In addition, Oliver pointed out that loyal customers have greater possibilities of positive word-of-mouth communication, helping companies to increase brand awareness and reduce publicity costs [2]. For home stores, merchant loyalty means repeat purchases and recommendations, which helps companies reduce investment, promotion, operating costs and earn profits.

Satisfaction is an important prerequisite for loyalty. In addition to satisfaction, the mall environment is also a factor of loyalty. Kumar pointed out that “customer perceptions of people and equipment are positively related to consumer behavior intentions (recommendation intentions) [3].” At the same time, some studies have suggested the opposite result. The relationship between environment and loyalty requires more research and verification.

Satisfaction-loyalty relationships have large industry differences, and some scholars have studied the impact of satisfaction on loyalty in actual situations, such as dining [4], sports events [5], hotels [6], Tourism [7] and so on. Some scholars have studied the satisfaction-loyalty relationship of the retail industry, but mainly concentrated in department stores and high-end luxury goods, less research on home stores.

The main purpose of this paper is to enrich the research on the relationship between mall environment, satisfaction and loyalty in the literature, and to explore its effect in the actual situation of the home store. In order to achieve this goal, a large sample of questionnaires was issued. The questionnaires were improved based on the Oliver scale, the loyalty model of Mohammed Ismail [8] and the MALLVAL scale of El-Adly [9].

The rest of the paper is structured as follows: A brief review of the concepts, and assumptions about the relationship between mall environment, satisfaction, and loyalty. The next section explains the research methods, performs data processing and draws conclusions. Finally, this article proposes feasible proposals for home stores to better retain merchants.

Literature Review

Loyalty

The concept of loyalty has been around since the 1940s [4]. The initial definition of loyalty only involved behavior loyalty, emphasizing actions taken for the benefit of a particular entity, such as repeated purchases.

Oliver and Bolton argue that attitude loyalty should also be taken into account [2, 10]. Oliver points out that "customer loyalty is a deep-rooted commitment to continually repurchase or revisit a popular product/service in the future, resulting in duplicate identical brand purchases." In addition, "brand loyalty Relevant to the positive biases and evaluations that consumers have about brands, labels, grading alternatives or product choices [2]."

The measurement of loyalty is also enriched with the development of the definition of loyalty. The current measurement of loyalty generally starts from three dimensions, including behavior loyalty, attitude loyalty, and multidimensional loyalty [4]. Behavioral loyalty means repurchase intention, renewal or market share [4, 10]. Attitude loyalty means trust, psychological commitment, willingness to pay premiums, resistance to quality products, brand preferences, brand recommendations and buyback intentions [11, 12].

This paper believes that loyalty should cover both behavior loyalty and attitude loyalty. Loyal customers have a positive evaluation of the brand and a higher repurchase intention. This paper uses composite indicators to measure loyalty. Based on the actual situation of home stores, it adopts the concept of renewal, recommendation and repurchase as a measure.

Some scholars have demonstrated the influence of attitude loyalty on behavior loyalty. They believe that attitude should be regarded as the psychological reason of repeated purchase, and behavior is a manifestation of attitude.

Based on this, this paper proposes the following assumptions:

H1: Attitude loyalty is positively related to behavior loyalty.

Satisfaction

Satisfaction is a comparison between the expected value and the perceived effect. When the perceived effect is greater than the expected value, the customer feels highly satisfied. Oliver et al. argue that "satisfaction is the final state of a cognitive process in which consumers compare their expectations with the subjective perceived value they derive from consumption. Satisfaction comes from a good consistency between consumer expectations and perceived consumer experiences [13]."

Most scholars hold a positive view on the impact of satisfaction on loyalty, but some scholars believe that satisfied customers are not necessarily loyal. Reichheld proposed a satisfaction trap, citing Bain's data indicating that between 65% and 85% of those who claim to be satisfied or very satisfied will be betrayed [1].

Although some scholars agree with the relationship between satisfaction and loyalty, they believe that the correlation between satisfaction and loyalty is not so strong. Gudergan pointed out that satisfaction has a marginal decline in the effect of increasing loyalty, and that satisfaction and loyalty have a negative cubic relationship [14].

Based on the above analysis, this paper proposes the following assumptions:

H2: Satisfaction is positively related to loyalty.

H2a: Satisfaction is positively related to attitude loyalty.

H2b: Satisfaction is positively related to behavior loyalty.

Mall Environment

The mall environment also belongs to the influence factors of loyalty, but the research on mall environment and store loyalty is still relatively small, and the research results of the relationship between mall environment and loyalty are also inconsistent [14]. Based on environmental psychology theory, Mehrabian and Russell have shown that mall environment has an impact on shopper's behavior responses, such as cognition, emotion and physiology, which may have a positive impact on

shopping outcomes [15]. Nisbett and Ross based on the theory of reasoning argue that shoppers use ambience clues to provide missing or difficult to assess information, such as price and quality. For non-professional consumers, there are phenomena that are difficult to assess and information is not [16].

However, Lehew et al. found that consumers with different loyalties did not have significant differences in perception of the mall environment [17]. Stoel et al. also found that the relationship between mall environment and loyalty is not significant [18]. Most researchers see the environment as a factor of satisfaction rather than a factor of loyalty. Based on the above analysis, this paper proposes the following assumptions:

H3: Mall environment is positively related to loyalty.

H3a: Mall environment is positively related to attitude loyalty.

H3b: Mall environment is positively related to behavior loyalty.

H4: Mall environment is positively related to satisfaction.

Research Method

Survey Design

The independent variables of this study are satisfaction and mall environment. At the same time, the dependent variable of this study is the variable that reflects the results of the study, namely loyalty. Improvements were made based on the Oliver scale and the loyalty model of Ioana-Nicoleta Abrudan.

Through in-depth interviews with home business (department) managers, representative merchants, and access to literature on satisfaction and loyalty, the preliminary preparation of the questionnaire was conducted. Using the five-level Likert scale, 5 expressed great satisfaction, 1 Very dissatisfied. For specific survey projects, 8 projects were used to evaluate the environmental satisfaction of the mall, such as the suitability of lighting facilities and lighting. 27 projects were used to measure satisfaction, such as brand image, brand portfolio and architecture, Indicators of service management, marketing activities, etc. In addition, three items are used to measure loyalty. The loyalty measure is measured by a composite indicator of behavior loyalty and attitude loyalty. The behavior loyalty is measured by the renewal rate, and the attitude loyalty is measured by the recommendation intention. To further improve the validity of the content, pre-testing was carried out, and the questionnaire was further modified based on feedback from practitioners in the home industry.

Sample Selection

In this study, the research population is the chain-type h home store in all stores across the country, the research population covers the various years of cooperation, including cooperation between new merchants within one year to loyal merchants with more than ten years of cooperation, covering large brands of merchants and Small brand merchants. We commissioned a two-week offline random sample survey by staff of the h home store to collect data on merchant satisfaction and loyalty. A total of 1232 valid questionnaires were collected in this survey.

Respondents were mainly new merchants within 3 years, of which 29.22% were new merchants within 1 year, and 19.4% were merchants in 1-3 years, but the number of samples per time interval was more than 100. Most stores the number of samples exceeds 100. The number of samples collected is relatively small due to the relatively small size of the store. The respondents' business categories cover home and building materials, mainly building materials, accounting for 58.44%. Only settled in the home store. The proportion of merchants is 59.65%, which is similar to the proportion of merchants stationed in many home stores. The sample has certain representativeness.

Table 1. Sample structure

Store\Working time	Within 1 year	1-3 years	3-5 years	5-7 years	7-10 years	More than 10 years	Subtotal
Store 1	21	50	21	13	26	21	152
Store 2	46	32	25	39	60	137	339
Store 3	51	37	2	7	2	6	105
Store 4	23	49	34	43	68	52	269
Store 5	42	57	74	0	0	0	173
Store 6	94	10	1	0	2	0	107
Store 7	83	4	0	0	0	0	87
total	360	239	157	102	158	216	1232

Analysis and Results

Descriptive Statistics

Satisfaction averaged 3.87 points. Personnel management (4.06), service management (3.93) and brand image (3.88) performed well, while brand structure and portfolio (3.78) and marketing promotion (3.69) were insufficient. The average value of the 27 indicators of satisfaction is greater than 3.5, the part is greater than 4, and the standard deviation is less than 1, indicating that the merchants have higher overall satisfaction with the mall. The average value of the three indicators on loyalty is greater than 3.5, indicating that merchants have higher loyalty.

Table 2. Loyalty

	N	Minimum value	Maximum	Average	Standard deviation
L1	1232	1	5	3.53	.894
L2	1232	1	5	3.67	1.052
L3	1232	1	5	4.00	.999
Valid N (listwise)	1232				

The net recommendation NPS is 9.98%, the highly loyal referees account for 37.18%, and the dissatisfied critics account for 27.19%. The average score of Chinese companies is less than 10%, in line with the industry average.

Table 3. NPS

Category	Percentage
Recommender	37.18%
Passive	35.63%
Critic	27.19%
NPS	9.98%

Reliability Test

In this paper, Cronbach a is used for reliability test. A value of 27 indicators of satisfaction is 0.987, the a value of mall environment is 0.941, the a value of loyalty is 0.853. Since the value of a is greater than 0.7, the letter of the research scale Degree is acceptable.

Table 4. Cronbach's α coefficient

Variable	Number of measurements	Cronbach's α coefficient
Mall environment	8	0.941
Satisfaction	27	0.987
Loyalty	3	0.853

Correlation Analysis and Regression Analysis

The correlation coefficient between attitude loyalty and behavior loyalty is $0.748 > 0$, indicating that behavior loyalty is positively correlated with attitude loyalty. The significance is 0, less than 0.05, so the null hypothesis should be rejected (H_0 : there is no correlation between the two variables), that is, the behavior Loyalty is positively influenced by the loyalty of attitude loyalty.

The correlation coefficient of satisfaction and attitude loyalty is 0.659, and the correlation coefficient of behavior loyalty is 0.558, indicating that satisfaction is positively correlated with attitude loyalty and behavior loyalty.

The correlation coefficients of environment and satisfaction, attitude loyalty and behavior loyalty are 0.878, 0.587 and 0.487, respectively. It can be seen that the environment has a positive impact on loyalty, but the relationship with satisfaction is the closest. The mall environment further affects loyalty through satisfaction.

Table 5. Correlation analysis

	Mall environment	Satisfaction	Attitude loyalty	Behavior loyalty
Mall environment				
Satisfaction	0.878			
Attitude loyalty	0.587	0.659		
Behavior loyalty	0.487	0.558	0.748	

Multivariate linear regression was carried out on environment, satisfaction, attitude loyalty and behavior loyalty. The multivariate regression equations of dependent variable behavior loyalty on independent variable satisfaction, environment and attitude loyalty were established, and f test, t test and collinear VIF test were performed. Using stepwise regression to select variables for regression, the variable environment is removed. The residual model is analyzed by stepwise regression. The dw value is about 2, which can be considered as no autocorrelation. It indicates that behavior loyalty is mainly due to satisfaction and attitude loyalty. The impact of the environment affects loyalty through satisfaction agents.

As can be seen from the table, the constant term of the regression model is -0.078, the regression coefficient of the independent variable "attitude loyalty" is 0.672, and the regression coefficient of satisfaction is 0.115. Therefore, the regression equation can be derived:

$$\text{Behavioral loyalty} = 0.115 * \text{Satisfaction} + 0.672 * \text{Attitude loyalty} - 0.078 \quad (1)$$

Table 6. Coefficient

Model		Non-standardized coefficient		Standardization coefficient	T	Significance	Collinear statistics	
		B	Standard error	Beta			Tolerance	VIF
1	(constant)	.207	.090		2.308	.021		
	Attitude loyal	.919	.023	.748	39.524	.000	1.000	1.000
2	(constant)	-.078	.108		-.718	.473		
	Attitude loyal	.825	.031	.672	26.912	.000	.565	1.769
	Satisfaction	.164	.036	.115	4.623	.000	.565	1.769

a. Number of strains: behavior loyalty

Based on the above analysis, all assumptions are supported.

Conclusion and Suggestions

Conclusion

The results of this study confirm that there is a significant positive relationship between mall environment, satisfaction and loyalty. The correlation coefficient between attitude loyalty and behavior loyalty is as high as 0.748, and behavior loyalty is positively influenced by attitude loyalty. Satisfaction is positively related to attitude loyalty and behavior loyalty.

Studies have confirmed that the environment has a positive impact on satisfaction and loyalty, mainly as a factor of satisfaction. Buying big-ticket home goods is a highly involved consumer behavior. The cost of trial and error is high, and the dependence on physical display is high. The image of the mall environment will affect the image of the merchants, which will affect sales. The results of the study are consistent with the results of environmental psychology theory and reasoning theory.

This paper verifies to some extent the existence of four loyalty types proposed by Dick and Basu in the home store[19]. The data analysis shows that some users who behave as behavior loyalty are not necessarily loyal, not necessarily satisfied, and cooperate for more than 10 years. Merchants are most pessimistic about the future development of H Home, which is false loyalty (low attitude / high repeat purchase). In addition, users who are highly loyal are not necessarily limited to a similar brand, and some loyal users have settled in a number of home stores. This research side verifies the view that consumers hold polygamous loyalty.

Suggestions

Enrich Marketing Campaign Types and Increase Marketing Effectiveness.

According to the satisfaction survey, the current home sales market is generally lacking in marketing promotion. At present, the marketing activities of home stores are mainly promotion, attracting passengers through discounts and other means. Merchants are dissatisfied with the “customer traffic”, “customer flow and sales promotion brought about by promotion and promotion activities”, “promotion and promotion activities are attractive to consumers”. The mall should further enhance the effectiveness of marketing activities, change the previous promotion-oriented activities, adjust the marketing promotion matrix, enrich the promotion channels, and accurately target the target customers of the merchants.

Improve the Shopping Environment from the Details.

Based on the influence of the mall environment on merchant satisfaction and loyalty, home stores need to pay attention to lighting, indicators, music, elevators, air conditioners and other software and hardware facilities. According to the boosting theory, sometimes a small change can induce changes

in consumer thinking and behavior. The overall rating of the merchant's environment for the mall was 3.88 points. Most of the indicators performed well, but “indoor and outdoor beautification and layout of holidays/seasons/major events” and “suitability of background music and broadcasting services” were slightly lower than the average and needed to be improved.

Platform Empowerment.

The current home store and merchants are mainly leasehold relationships, and the cooperation model is biased towards tradition. Industry benchmarks such as Red Star Macalline are actively trying to empower the platform. By establishing a big data system, enterprises can analyze consumer online and offline behavior trajectories and form user tags, such as preferences for brands. Gain insight into user needs, provide accurate information push and service, empower business and operational empowerment, and promote merchant sales.

References

- [1] Reichheld, Frederick F. (1996), *The Loyalty Effect*. Boston, MA: Harvard Business School Press
Reference to a book
- [2] Oliver, R.L., 1999. Whence consumer loyalty? *J. Mark.* 63, 33–44.
- [3] Kumar, V., Dalla Pozza, I., Ganesh, J., 2013. Revisiting the satisfaction-loyalty relationship: empirical generalizations and directions for future research. *J. Retail.* 89, 246–262.
- [4] Iona Skačkauskienė, Neringa Vilkaitė-Vaitonė & Sergej Vojtovic (2015) Model for measuring customer loyalty towards a service provider, *Journal of Business Economics and Management*, 16:6, 1185-1200, DOI: 10.3846/16111699.2015.1112829
- [5] Ahrholdt, Dennis C.; Gudergan, Siegfried P.; Ringle, Christian M.(2019)Enhancing loyalty: When improving consumer satisfaction and delight matters. *Journal of Business Research*, 94 (2018) 18-27.
- [6] Loureiro, S. M. C. (2010). Satisfying and delighting the rural tourists. *Journal of Travel & Tourism Marketing*, 27(4), 396–408.
- [7] Kim, M., Vogt, C. A., & Knutson, B. J. (2015). Relationships among customer satisfaction, delight, and loyalty in the hospitality industry. *Journal of Hospitality and Tourism Research*, 39(2), 170–197.
- [8] Mohammed Ismail El-Adly, Riyad Eid.An empirical study of the relationship between shopping environment, customer perceived value, satisfaction, and loyalty in the UAE malls context[J].*Journal of retailing and consumer services*,2016,31(Jul.):217-227.
- [9] Eid, R., 2015. Integrating Muslim customer perceived value, satisfaction, loyalty and retention in the tourism industry: an empirical study. *Int. J. Tour. Res.* 17 (3), 209–312.
- [10] Bolton, R. N., & Lemon, K. N. (1999). A dynamic model of customers’ usage of services: Usage as an antecedent and consequence of satisfaction. *Journal of Marketing Research*, 36(5), 171–186.
- [11] Worthington, S.; Russell-Bennett, R.; Hartel, C. 2010. A tri-dimensional approach for auditing brand loyalty, *Brand Management* 17(4): 243–253.
- [12] Terblanche, N. S.; Boshoff, C. 2010. Quality, value, satisfaction and loyalty among race groups: a study of customers in the South African fast food industry, *South African Journal of Business Management* 41(1): 1–9.
- [13] Oliver, R., 1997. *Satisfaction: A behavior Perspective on the Consumer*. Routledge, New York, NY.

- [14] Gudergan, Siegfried P.,Ahrholdt, Dennis C.,Ringle, Christian M..Enhancing loyalty: When improving consumer satisfaction and delight matters[J].Journal of business research,2019,94(Jan.):18-27.
- [15] Mehrabian, A., Russell, J., 1974. *An Approach to Environmental Psychology*. MIT Press, Cambridge, Massachusetts.
- [16] Nisbett, R., Ross, L., 1980. *Human Inference: Strategies and Shortcomings of Social Judgment*. Prentice-Hall, Englewood Cliffs, NJ; Toronto.
- [17] Lehew, A., Burgess, B., Wesley, S., 2002. Expanding the loyalty concept to include preference for a shopping mall. *Int. Rev. Retail Distrib. Consum. Res.* 12 (3), 225–236.
- [18] Stoel, L., Wickliffe, V., Lee, K., 2004. Attribute beliefs and spending as antecedents to shopping value. *J. Bus. Res.* 57 (10), 1067–1073.
- [19] Dick, A.S., Basu, K., 1994. Customer loyalty: toward an integrated conceptual framework. *J. Acad. Mark. Sci.* 22 (2), 99–113.