

Study of Consumer Silence Behavior in the Context of Microblog Marketing

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Abstract: Through interviews and questionnaires, this paper makes an exploratory study on the types and motivations of consumer silence behavior in the context of microblog marketing. The results show that: in the context of microblog marketing, Chinese consumer silence behavior includes four types: defensive silence behavior, helpless silence behavior, suspicious silence behavior and prosocial silence behavior.

1. Introduction

User silence is common in the field of social media. According to *The Social Network Industry Research Report* in 2019, only 57.8% of microblog users have the habit of forwarding and commenting on interesting microblogs. This silence is especially common when it comes to advertising. Some researchers have noticed that the audience has resistance psychology to participate in advertising communication [1], but they have not further explored its causes. Since silence behavior is difficult to be perceived by enterprises and easy to cause customer aversion, this paper introduces the concept of "consumer silence behavior" to explore this problem. On the basis of literature review, we defines it as the behavior that consumers choose to be silent and reserve opinions instead of commenting or forwarding on the spot after receiving the ad push. This kind of behavior is relative, consumers may confide to relatives, friends and other third parties.

Consumer silence is developed from employee silence in organizational behavior. Based on cognitive evaluation theory, foreign scholars put forward the main reasons why dissatisfied consumers fail to complain [2], and the potential impact of consumer silence on service enterprises [3]. Domestic scholars' research on consumer silence behavior is very rare, and mainly focuses on consumer complaint or non complaint behavior, like the main factors affecting consumer non complaint, the influencing mechanism of consumer silence behavior in the context of service failure [4], etc. The research on silence behavior in marketing field is limited.

Therefore, this paper will take microblog marketing as background, and deeply explore the types and motivations of consumer silence behavior in the context of microblog marketing.

2. Exploration of the structure of consumer silence behavior in the context of microblog marketing

2.1 Acquisition of motivation items and questionnaire compilation of consumer silence behavior in the context of microblog marketing

Firstly, this paper defines the consumer silence behavior in the context of microblog marketing, and collects its motivation items. This work is based on the consumer silence behavior scale in the context of service failure and organizational silence scale, through the method of interview. The questions are like "have you ever seen an advertisement on microblog, but you didn't like it, comment on it or forward it? Do you remember the last experience? What kind of emotions and thoughts did you want to express at that time? Why didn't you express the emotions or thoughts? " A total of 28 interviewees were interviewed, with an average interview time of about 30 minutes. The interviewees were all students from a university in Nanjing. Since the users of microblog tend to be younger, and

college students use microblog and other social media frequently and for a long time, it is representative to select college students as respondents [5]. A total of 20 descriptions related to the motivation of consumer silence behavior were obtained.

Then, we found two marketing experts to confirm the meaning of these motivational items, clarify the vague items, and merge the similar items. Finally, 15 motivation items were obtained through the pre-test, and based on this, a questionnaire was compiled. The questionnaire was scored by Likert 7-level scoring method.

2.2 Research on the motivation structure of consumer silence behavior in the context of microblog marketing

The respondents of the formal questionnaire were also students from a university in Nanjing. A total of 335 questionnaires were distributed, 335 were actually recovered, and 333 were valid. Among them, male accounted for 30.84%, female accounted for 69.16%; undergraduate accounted for 87.72%, graduate and above accounted for 12.28%. We divided the questionnaire into two parts, one part was used for exploratory research (n = 160), the other part was used for confirmatory research (n = 173).

Table 1 Results of exploratory factor analysis of consumer silence behavior

	Defensive silence	Suspicious silence	Prosocial silence	Helpless silence
12 I'm afraid that expressing opinions will lead to a dispute.	0.907			
11 Others are silent and I don't want to be special.	0.902			
10 I'm worried that I'm going too far for a moment.	0.896			
2 The opinions expressed were not dealt with in time.		0.903		
1 Even if I say my opinion, it will not be taken seriously.		0.875		
3 It's no use expressing opinions.		0.831		
14 The software / publisher is good in other aspects, and it doesn't matter if there are some advertisements.			0.848	
13 Advertising is the source of revenue and operation support for software / publishers, which is justifiable.			0.838	
15 I don't want to embarrass people.			0.809	
5 There is no complaint or block channel in the software.				0.882
4 I don't know where to express my opinions.				0.830
6 The process of expressing opinions is troublesome.				0.781

Firstly, we use a part of the questionnaire (n = 160) to explore the motivation structure of consumer silence behavior in the context of microblog marketing, and use the method of project analysis to delete some projects with poor discrimination. The total score of the questionnaire was ranked from high to low. The top 25% were high group subjects, and the last 25% were low group subjects. Subsequently, we performed independent sample t test for each item based on grouping variables. If the critical ratio (CR) value of the item reaches the significant level, it means that the item can identify the reaction degree of different subjects, and the item has good discrimination. If the t test result does not reach the significant level, the item should be deleted. Through the analysis, it is found that the reliability of three items is not up to standard, and the average variance variation of latent variables is 0.333, less than 0.5, the combined reliability is 0.594, less than 0.7, which indicates that the convergent validity is not ideal, so the measurement items are deleted. After factor analysis and project purification, the factor load and consistency coefficient of other measurement items meet the

requirements. Through the orthogonal rotation of the maximum variance in principal component analysis, the factors with eigenvalue greater than 1 are selected, and finally the structural model of consumer silence motivation is obtained, which is composed of four dimensions (as shown in table 1). According to the specific meaning of each item, it is named as defensive silence, suspicious silence, prosocial silence and helpless silence. The percentage of explained variance is 20.63%, 19.01%, 17.70% and 17.49% respectively, add up to 74.83%, which means that the amount of information can be effectively extracted. Defensive silence is a kind of self-protection behavior that consumers conceal relevant ideas, information or opinions in order to avoid disputes. Suspicious silence is a kind of behavior that consumers choose not to express their opinions because they don't trust the platform or blogger. Prosocial silence is a kind of behavior that consumers conceal negative thoughts, information or opinions, understanding and containing advertisements because of altruistic motives. Helpless silence behavior is a kind of helpless silence behavior caused by poor channels or the lack of channels for consumers to express their opinions.

3. Verification of the motivational structure model of consumer silence behavior in the context of microblog marketing

3.1 Confirmatory factor analysis

Then, we used Amos 17.0 to carry out confirmatory factor analysis on another part of valid questionnaires (n = 173). Firstly, the quality of the measurement model is evaluated by the load and residual of each observed variable on the latent variable. From table 2, we can see that each item has a relatively high load on the corresponding potential variables, with the lowest being 0.616 and the highest being 0.901, between 0.5-0.95, indicating that each observed variable has a relatively large explanatory rate on the corresponding potential variables with a small error, and the relationship between the observed variable and the potential variable is reliable. Secondly, the model is evaluated by fitting the observed data of samples with the conceptual model. It can be seen from table 3 that the fitting indexes of the four-dimensional model and the actual measurement data all reach a good fitting level, which indicates that the observation data well support the conceptual model. In order to better distinguish and compare, we also proposed two competition models, one factor model and two factor model. The calculation results of the three models are summarized in table 3. By comparison, it is found that the four factor model is superior to the other two competition models in each fitting index. In particular, we should point out one indicator: NCP. NCP is an alternative indicator, which represents the chi-square statistics estimated by SEM and the dispersion degree of the central chi-square distribution from the best model. It is mainly used for multiple model selection under the same sample. The lower NCP value indicates that the quality of the model is better. It can be seen that the four factor model is obviously better than other competition models.

Table 2 Summary of confirmatory factor analysis results

Factor	Item	Factor load	Residual	AVE
Suspicious silence (F1)	1 Even if I say my opinion, it will not be taken seriously.	0.849	0.08	0.734
	2 The opinions expressed were not dealt with in time.	0.865	0.076	
	3 It's no use expressing opinions.	0.856	0.08	
Helpless silence (F2)	4 I don't know where to express my opinions.	0.793	0.06	0.646
	5 There is no complaint or block channel in the software.	0.901	0.047	
	6 The process of expressing opinions is troublesome.	0.706	0.041	
Defensive silence (F3)	10 I'm worried that I'm going too far for a moment.	0.824	0.123	0.554
	11 Others are silent and I don't want to be special.	0.716	0.123	
	12 I'm afraid that expressing opinions will lead to a dispute.	0.685	0.117	
Prosocial silence (F4)	13 Advertising is the source of revenue and operation support for software / publishers, which is justifiable.	0.724	0.104	0.561
	14 The software / publisher is good in other aspects, and it doesn't matter if there are some advertisements.	0.616	0.109	
	15 I don't want to embarrass people.	0.883	0.126	

Table 3 Fitting index of observed data and three possible models

Model	χ^2	df	χ^2/df	RMSEA	CFI	NFI	PNFI	NCP
Single factor model	74.39	54	1.378	0.062	0.85	0.81	0.78	20.39
Two factor model	74.14	52	1.426	0.076	0.95	0.88	0.75	22.14
Four factor model	57.29	48	1.194	0.024	0.95	0.91	0.70	9.29

3.2 Reliability and validity of the questionnaire

First, reliability test. It refers to the consistency of the items that make up the questionnaire. It is usually described by Cronbach α coefficient. The analysis shows that the overall α coefficient of consumer silence questionnaire is 0.791, and the α coefficients of defensive silence, helpless silence, suspicious silence and prosocial silence are 0.785, 0.837, 0.892 and 0.781 respectively, all greater than 0.7, meeting the requirements of statistics. Therefore, the reliability of the questionnaire is good.

Second, validity test. (1) Content validity. In the process of developing the questionnaire, we refer to the existing research results of organizational silence behavior and consumer silence behavior in the context of service failure, and listen to the opinions of marketing experts. The items of the questionnaire reflect the driving factors behind silence behavior, so the content validity is good. (2) Construct validity. The results of confirmatory factor analysis show that the four factor model is ideal. The results of exploratory factor analysis and confirmatory factor analysis are highly consistent, which shows that the questionnaire has good structural validity. (3) Convergence validity. When measuring the same construct, there should be a high positive correlation between the values measured by different tests. As shown in table 2, the AVE of each latent variable in this study is 0.734, 0.646, 0.554 and 0.561 respectively, and the values are all greater than the standard of 0.5, which indicates that the explanatory power of the measurement index exceeds its error variance, the convergence ability of each latent variable is ideal, and it has good convergence validity. (4) Discriminant validity. It can be seen from table 4 that there is a significant correlation between the variables. In addition, the correlation coefficients are less than 0.5, and less than the square root of the corresponding AVE, indicating that there is a certain correlation between the potential variables, and there is a certain degree of discrimination between them. The scale data discrimination is ideal.

Table 4 Summary of discrimination test for each factor

	F1	F2	F3	F4
F1	0.857			
F2	0.031***	0.804		
F3	0.224***	0.029***	0.744	
F4	0.128***	0.052***	0.008***	0.749

4. Conclusion

4.1 Analysis of consumer silence behavior in the context of microblog marketing

(1) Defensive silence behavior

Pinder and Harlos use the term "quiescence" to describe the behavior of individuals who deliberately do not express their opinions because of fear of the consequences of being outspoken [6]. Defensive silence often comes from the need for security. From the content of defensive silence, consumers' choice of silence behavior is mainly because they scruple the views of others. The idea of "silence is golden" are deeply rooted in the hearts of Chinese people. Therefore, we define defensive silence as a kind of self-protection behavior that consumers conceal relevant ideas, information or opinions in order to avoid disputes. Microblog is an open platform, so for the need of self-protection, consumers will choose not to comment. Therefore, platforms and enterprises should consider setting up special channels to ensure the privacy of consumers' opinions, such as commenting "only visible to bloggers", which can effectively reduce the occurrence of defensive silence.

(2) Helpless silence behavior

From the project dimension, we can see that the main reason why helpless silent consumers do not express their opinions is that there is no channel or the channel is not smooth. Although consumer can choose to close or complain through the top right corner of microblog ads, from the frequency of recommended ads, it is unrealistic to close all, and their opinions often received no response. As the ads blogger publishes, there are no blocked channels, and the opinions expresses are often drowned out by others. Therefore, consumers often do not know how to reflect their opinions to the platform or bloggers, or quit because of the cumbersome process or high cost. Therefore, we define helpless silence behavior as the helpless silence behavior caused by poor channels or the lack of channels for consumers to express their opinions. Platforms or enterprises can reduce this kind of silence behavior through following ways: first, open up special channels for advertising opinions; second, strengthen publicity to let consumers know where to complain; third, simplify the process of opinion publishing to improve consumers' sense of control.

(3) Suspicious silence behavior

The items in this dimension are related to the general belief that being outspoken does not help to change the situation or focus [6]. This is usually due to a lack of trust in the platform or blogger. This paper defines suspicious silence as a kind of behavior that consumers choose not to express their opinions because they do not trust the platform or blogger. Some interviewees mentioned that they once click the "not interested" or "block bloggers like this" buttons on the ads, but they will still see similar ads next time. It makes them doubt whether the platform really attaches importance to customers' opinions and solves problems, resulting in a lack of confidence in the outcome of their opinions. Therefore, for such consumers, the key is to enhance their trust in the platform and bloggers. The platform should improve the big data algorithm and the accuracy of advertising, for consumers who choose to block certain types of advertising no longer put such ads. Enterprises should establish and improve consumer opinion collection channels, and choose advertising delivery method carefully to avoid causing consumer aversion.

(4) Prosocial silence behavior

Some scholars believe that prosocial silence comes from altruism and cooperation motivation [7]. According to researches in social psychology, the fundamental reasons of altruistic behavior are interest correlation and value correlation. Interest correlation means that when people think that the higher the interest correlation between each other (like mother and son, husband and wife), the more altruistic behavior they will show. Value relevance means that when people think that the value growth of others will lead to their own value growth, they will show more altruistic behavior. Many interviewees said that it is acceptable for bloggers they like to post advertisements, accompanied by a higher tendency to watch and buy; when a brand is praised by people around, they will be more tolerant of its advertisements. Therefore, this paper defines prosocial silence as a kind of behavior that consumers conceal negative thoughts, information or opinions, understanding and containing advertisements because of altruistic motives. Different from defensive silence, the motivation of prosocial silence is to care about others, rather than worry about the negative personal consequences of expressing opinions.

4.2 Enlightenment and deficiency

Through the above analysis, we can get the following enlightenment: first, the motives behind consumer silence behavior are quite different, so it is necessary for enterprises to conduct in-depth analysis and research on their motives. Second, it is necessary for platforms and enterprises to take targeted measures to encourage customers to express their opinions, so as to strengthen the guidance and management of consumer behavior, and further optimize the precision marketing strategy and advertising measures.

The following are the limitations and future research directions of this study: first, we need to further expand the sample to compare and analyze the silence behavior of different groups of consumers. Second, the relevant influencing factors of consumer silence behavior in the context of microblog marketing need more empirical support. Third, the impact of consumer silence behavior on consumer buying behavior and other outcome variables needs to be deepened.

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