

A Study on the Impact of Social Media Marketing on Non local Loyalty of Tourism City Brands: A Case Study of Yantai

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Abstract:

Nowadays, social media has become an important way for people to perceive the image of cities, and marketers are increasingly focusing on using social media for brand management. However, the application of social media in the field of city branding has not received enough attention, and most have ignored the behavior of consumers. This study constructs an empirical research model on the impact of social media marketing on city brand loyalty, conducts a case study on Yantai, and uses a questionnaire survey method to examine the impact of social media marketing on non local brand loyalty in tourist cities. The results indicate that there is a significant positive correlation between the information, entertainment, and interaction dimensions of social media marketing and the non local loyalty of Yantai city brands. In addition, the perceived quality of city brand image plays a mediating role in this relationship.

Keywords: social media, marketing, brand loyalty, tourist city

1.Introduction

City brand refers to the connection between a certain place and a certain image based on people's cognitive judgment of a certain place. As a strategic communication tool, it can "purposefully symbolically reflect all information related to the city, in order to establish connections around the city", and enhance city competitiveness. Therefore, city managers have begun to pay more attention to the brand aspect, utilizing the internet background to fully initiate the city's brand building through social media marketing. City brand loyalty is an important goal of marketing. Tourism cities, as a major category of cities, are also driven by brand development, so conducting brand research on tourism cities is highly convincing. City branding is the use of a city as a commodity to create a certain perception of the city's image, which in turn affects people's brand loyalty to the city. Therefore, people's perceived quality plays a mediating role in it. So, how does social media marketing affect city brand loyalty? How does the perceived quality of city image play a mediating role in this influencing process? This study will conduct research from the perspective of non-Yantai locals, using a questionnaire survey method to examine the impact of social media marketing on the loyalty of tourism city brands to non-locals. This has important practical significance for enhancing brand building, shaping a more attractive and competitive urban image.

2.Current study

From the aspect of social media marketing, the research on city brands focused on the content released by city marketing organizations in social media. Lin Yan explored how cities conduct brand marketing through Tiktok by analyzing the content released by Tiktok [2]. Sonya et al. put forward the SPBM city brand management model [3]. However, when it comes to non locals accessing tourism information, social media has become an important channel for them to obtain information. And they also undertake the production and dissemination of social media content, contributing to urban marketing. In 2000, Bill Merrilees proposed to create a powerful urban brand that can facilitate communication and connection among multiple stakeholder groups in a city. In his research, he emphasized the important value of urban stakeholder research in urban brand research. Since then, many foreign scholars have also begun to conduct empirical research on different stakeholder groups in cities[4].

In China, stakeholders are also an important perspective for urban brand research. Based on the investigation, Song Huanying divided the stakeholders of cities into three categories: local residents, visitors, and non visitors, and conducted an empirical analysis of the audience perception of brand image in 36 cities in China[5]. The above research and investigation fully demonstrate the important role of stakeholders in the process of shaping city brands.

It means that the formation of city brands is closely related to the perception of stakeholders from multiple aspects—The higher the perceived quality of a city to stakeholders, the better its image will be in the minds of stakeholders, then the stronger the attractiveness of the city to the outside world, last the higher people's brand loyalty to the city.

Above all, despite the increasing amount of research on social media, there is still a lack of in-depth research on city branding, with even more inadequate empirical research in China. Furthermore, previous research on city brands has mainly focused on the content posted by urban marketing organizations on social media, overlooking the behaviors of consumers. The innovation of this study lies primarily in the fact that it takes city brand loyalty as a variable from a research perspective, which can fill a certain gap in the fields of social media marketing and city brand research. Additionally, from a research object perspective, stakeholders are an essential starting point for discussing urban branding. This study also recognizes that there are differences in the perception of urban branding among different stakeholders, but few studies approach it from a non-local perspective. This study considers stakeholder types as control variables, which is valuable. Lastly, from a research method perspective, this study takes Yantai as an example and adopts a quantitative research approach. This allows for the construction of a research model of "social media marketing on city brand loyalty" from an empirical perspective, providing data support for exploring the formation mechanism.

3. Research hypotheses

Social media marketing provides people with relevant information about the city through various dimensions, thereby influencing a series of perceptions and attitudes towards the city. Many research findings indicate that social media marketing is an important means of establishing and improving brand loyalty. Su Hui found through her research on coffee product brands that social media marketing activities have a positive impact on brand loyalty[6]. Kim and Ko's research on the luxury goods industry found that social media marketing activities have a significant positive effect on luxury brand loyalty [7]. Tatar and Eren Erdogmus's research on the hotel industry found that social media marketing has a positive effect on hotel brand loyalty [8]. It can be noticed that social media marketing has been studied to some extent in product and service brands, most of which have been confirmed to have a positive relationship with brand loyalty, but there are still shortcomings in urban branding. In the era of Web 2.0, social media has become an important way for people

to interact with tourist destinations, so studying the impact of social media marketing on brand loyalty in tourist cities is of great significance. As mentioned earlier, this study measures the impact of social media marketing on city brands from three dimensions by organizing literature: information, entertainment, and interaction. Therefore, the following hypotheses are proposed:

H1: There is a positive correlation between the information dimension of social media marketing and city brand loyalty.

H2: There is a positive correlation between the entertainment dimension of social media marketing and city brand loyalty.

H3: There is a positive correlation between the interaction dimension of social media marketing and city brand loyalty.

After in-depth communication with consumers, Fournier found that there is an emotional connection between people and the brand, which means that consumers have a perception of the brand[9]. Sirgy et al.'s research has shown that when consumers perceive high quality of a certain brand, it further affects their positive attitude towards purchasing that brand. Afterwards, this phenomenon was verified that the quality of customer perception of the brand can affect their purchase loyalty to the brand, that is, the customer's response to the preference for this city brand. Therefore, managing the perceived quality of consumers is an important prerequisite for improving brand loyalty, and it is also an important target for social media to market cities. Based on this, this study assumes that in the path of social media marketing's impact on tourism city brands, the perceived quality of city brand image plays a mediating role, namely:

H4: The perceived quality of city brand image plays a mediating role in the impact of social media marketing on city brand loyalty.

4. Empirical analysis

4.1 Introduction to Samples and Variables

Survey subjects: Considering that local people can understand city information through practical experience, and non local people rely mainly on the information environment processed by media, this study will screen the research subjects, only targeting non local audiences. In addition, due to the selected social media platform being Xiaohongshu, the final selection of research subjects is non Yantai locals who have seen Yantai city information on Xiaohongshu.

(1) Core explanatory variable: social media marketing dimension

As mentioned earlier, based on previous research, this

study focuses on the impact of social media marketing on city brand loyalty from three dimensions: information, entertainment, and interaction. By organizing literature, this study designs a social media marketing information dimension scale (5 questions), a social media marketing entertainment dimension scale (3 questions), and a social media marketing interaction dimension scale (4 questions) for variable measurement. These scales are all measured using Likert’s five point scale (very dissatisfied to very satisfied).

(2) Explained variable: brand loyalty

Based on previous research, this study designs a brand loyalty scale (5 questions) for variable measurement. The scale is measured using Likert’s five point scale (very dissatisfied to very satisfied).

(3) Mediator variable: the perceived quality of city brand image

Based on previous research, this study designs a perceived quality scale for brand image (4 questions) for variable measurement. The scale is measured using Likert’s five point scale (very dissatisfied to very satisfied).

(4) Non core variables include: demographic variables such as gender, age, highest education level, occupation, etc.

4.2 Descriptive statistics

Describing the basic information of the sample is a prerequisite for further statistical inference. This study mainly elaborates on the basic information of the sample from four aspects: gender, age, education, and occupation. The results are shown in Table 1.

Table 1 Statistical table of basic information of research samples

Variable	Class interval	Frequency	Percentage
Gender	Male	133	50.2
	Female	132	49.8
Age	Less than18	21	7.9
	18-25	47	17.7
	26-30	88	33.2
	31-40	61	23
	41-50	31	11.7
	50 or more	17	6.4
Education	Junior high and below	39	14.7
	Senior High	44	16.6
	Undergraduate	128	48.3
	Postgraduate	54	20.4
Occupation	Students	68	25.7
	Public institutions	49	18.5
	State-owned Enterprises	19	7.2
	Private/Foreign Enterprises	73	27.5
	Individual operators	32	12.1
	Freelancers	19	7.2
	Others	5	1.9

According to Table 1, among all 265 samples, there are 132 females, accounting for 49.4%, and 133 males, accounting for 50.2%. The number of males and females is basically the same. From the perspective of age distribution, the sample is mainly composed of middle-aged and young people, which is quite consistent with the actual situation—Currently, middle-aged and young people are the main audience of Xiaohongshu. In terms of educational background, a relatively large proportion of respondents have a college degree or above, which means the survey sample has a higher level of education. In terms of occupational status, there is a relatively large proportion of students in school, as well as private and foreign enterprises.

4.3 Reliability and validity analysis

4.3.1 Reliability analysis

Conducting a reliability test on the survey results to ensure the validity of the measurement effectiveness items within the scale. The selected measurement metric is Cronbach's Alpha value. The reliability test results of scales are as follows:

Table 2 Scale reliability test results

Variable	Cronbach's Alpha	Item
Information feature	0.862	5
Entertainment feature	0.855	3
Interaction feature	0.792	4
Image perception quality	0.834	4
Loyalty	0.863	5

According to Table 2, the Cronbach's Alpha values of the five major scales are all above 0.8, indicating good reliability. Therefore, further analysis can be conducted.

4.3.2 Validity analysis

According to Table 3 KMO and Bartlett Inspection test values, the KMO value of this questionnaire is 0.952, with a P-value of 0.000, which is less than 0.05, indicating that the questionnaire data is very suitable for factor analysis.

Table 3 KMO and Bartlett Inspection Table

Questionnaire		
KMO and Bartlett Inspection	KMO	0.952
	Approximate chi square	3788.017
	Degree of freedom	210
	P	0.000

Using the maximum variance method for orthogonal rotation, the rotated component matrix is shown in Table 4.

Table 4 Component Matrix after Rotation

	Component				
	Loyalty	Information	Image perception quality	Interaction	Entertainment
Q8	0.709				
Q8	0.771				
Q8	0.709				
Q8	0.748				
Q8	0.742				
Q3		0.683			
Q3		0.764			
Q3		0.775			
Q3		0.724			
Q3		0.704			
Q7			0.751		
Q7			0.73		
Q7			0.766		
Q7			0.727		
Q6				0.698	
Q6				0.735	
Q6				0.751	
Q6				0.769	
Q4					0.737
Q4					0.79
Q4					0.783

The results show that this questionnaire is composed of 5 factors, and the explored dimensions are consistent with

the expected dimensions. After rotation, the load of each factor is greater than 0.6, indicating good validity.

4.4 Correlation analysis

Calculating the average and standard deviation of the five dimensions in sequence, and performing bivariate correlation analysis. Firstly, among the five dimensions, the mean of interaction feature is the highest (M=3.9491) and the mean of entertainment feature is the lowest (M=3.5447), indicating that respondents have the highest recognition in terms of interaction feature and the lowest in terms of

entertainment feature. The entertainment feature has the highest standard deviation (SD=1.175) while the interaction feature has the lowest (SD=0.833), indicating that the entertainment feature data fluctuates the most while the interaction feature data fluctuates the least. Secondly, according to the Pearson coefficient, the five dimensions show pairwise positive correlation. Among them, the r-value between loyalty and entertainment feature is 0.554, indicating the strongest correlation; and the r-value between loyalty and interaction feature is 0.402, indicating the weakest correlation.

Table 5 Correlation analysis results

	M	SD	Information	Entertainment	Interaction	Quality	Loyalty
Information	3.6709	0.993	1	.543**	.432**	.518**	.536**
Entertainment	3.5447	1.175	.543**	1	.465**	.472**	.554**
Interaction	3.9491	0.833	.432**	.465**	1	.418**	.402**
Quality	3.8425	0.942	.518**	.472**	.418**	1	.517**
Loyalty	3.7796	0.972	.536**	.554**	.402**	.517**	1

4.5 Regression analysis

Performing multiple linear regression analysis with loyalty as the dependent variable, and information, enter-

tainment, and interaction feature as independent variables to explore the impact of information, entertainment, and interaction feature on loyalty.

Table 6 Regression analysis results

Variable	B	Standard error	Beta	t	VIF
Information	0.298***	0.058	0.304	5.148	1.506
Entertainment	0.278***	0.05	0.336	5.577	1.564
Interaction	0.134*	0.065	0.115	2.053	1.354
R2			0.395		
Adjusted R2			0.388		
F			56.894***		
DW			1.998		

The results show that the R-squared value is 0.395, and the F-value is significantly less than 0.05, indicating strong fitting and linear significance among three independent variables. The DW value is 1.998, which is close to 2, so there is no autocorrelation. The VIF values for information feature, entertainment feature, and interaction feature are 1.506, 1.564, and 1.354, all < 5, indicating that there is no multicollinearity in this model. The regression coefficient of information feature is 0.298 (P<0.05), indicating that information feature has a significant positive promoting effect on loyalty; The regression coefficient of entertainment feature is 0.278 (P<0.05), indicating that

entertainment feature has a significant positive promoting effect on loyalty; The regression coefficient of interaction feature is 0.134 (P<0.05), indicating that interaction feature has a significant positive promoting effect on loyalty. Above all, information, entertainment, and interaction feature all have a significant positive promoting effect on loyalty, with entertainment feature having the strongest promoting effect. So far, H1, H2, and H3 have been validated, and the hypotheses are all valid.

4.6 Mediation Analysis

This study verifies the mediating effect of image perception quality between each independent variable and

loyalty through linear regression analysis. The specific measurement standard is: for the same independent variable, compare the two B-values before and after testing. If

the latter is smaller than the former, the image perception quality has a mediating effect.

Table 7 Mediation Analysis results

	Quality		Loyalty		Loyalty	
	B	t	B	t	B	t
Constant	2.038***	10.711	1.853***	9.566	1.164***	5.306
Information	0.492***	9.822	0.525***	10.3	0.359***	6.371
Quality	—	—	—	—	0.338	5.696
Adjusted R2	0.266		0.285		0.361	
F	96.469		106.08		76.601	
Constant	2.499***	15.359	2.154***	13.585	1.306***	6.367
Entertainment	0.379***	8.694	0.459***	10.803	0.33***	7.296
Quality	—	—	—	—	0.339	6.014
Adjusted R2	0.22		0.305		0.387	
F	75.585		116.696		84.332	
Constant	1.976***	7.726	1.925***	7.238	1.062***	3.965
Interaction	0.473***	7.453	0.47***	7.127	0.263***	3.994
Quality	—	—	—	—	0.437	7.491
Adjusted R2	0.171		0.159		0.304	
F	55.554		50.793		58.778	

According to Table 7, the independent variables information feature (B=0.525, t=10.3, p<0.001), entertainment feature (B=0.459, t=10.803, p<0.001), and interaction feature (B=0.47, t=7.127, p<0.001) all have a significant positive impact on loyalty. Moreover, when the mediator variable image perception quality is included, information feature (B=0.359, t=6.371, p<0.001), entertainment feature (B=0.33, t=7.296, p<0.001), and interaction feature (B=0.263, t=3.994, p<0.001) still have a significant impact on loyalty, but the regression coefficient weakens. At the same time, information feature (B=0.492, t=9.822, p<0.001), entertainment feature (B=0.379, t=8.694, p<0.001), and interactive feature (B=0.473, t=7.453, p<0.001) all have a significant positive effect on the mediator variable, and the impact of image perception quality on loyalty is also significant in the three tests (B=0.338, t=5.696, p<0.001; B=0.339, t=6.014, p<0.001; B=0.437, t=7.491, p<0.001).

Above all, the image perception quality plays a mediating role in the positive impact of information, entertainment, and interaction feature on loyalty. So far, H4 has been validated and the hypothesis is valid.

5. Conclusion and Inspiration

With the rapid development of the Internet, there is increasing research on social media, yet there is still a lack of urban branding, and empirical research in China is even more insufficient. City brand is the core competitiveness of a city, and city brand loyalty is an important indicator to measure competitiveness, which is particularly important for the development of tourist cities. Therefore, studying the impact of social media marketing on non-local brand loyalty in tourist cities has practical significance for policy correction and innovation. The main conclusions of the study are: (1) The information, entertainment, and interaction dimensions of social media marketing have a significant positive effect on brand loyalty, and this conclusion still holds after correlation statistical analysis and descriptive statistical analysis. (2) The mediation analysis test shows that the perceived quality of a city's brand image plays a mediating role in the impact of social media marketing on city brand loyalty.

Based on the above conclusions, this study provides the following policy references for enhancing the participation of non-locals in urban brand building, improving marketing methods, and shaping a more attractive and

competitive city brand image. Firstly, enhance the audience engagement of social media marketing content and conduct social media marketing from multiple perspectives to enhance brand loyalty to tourist cities. With the popularization of social media, in addition to citizens, more and more netizens are also participating in the construction of city brand image. It is appropriate to gather popular travel influencers online for on-site travel experiences, promoting celebrity endorsements; Or participate in Q&A voting and other activities through official Weibo to increase the sense of participation of netizens, attracting their desire to travel. Secondly, the government should collaborate with trending social events and promote social media marketing to actively build the city's brand image. As city managers, the government can proactively participate in and respond to the construction and promotion of the city's image through social media platforms, playing a pivotal role in enhancing the perceived quality of the city's brand image and boosting brand loyalty. The government can open official accounts on microblogging platforms, such as Xiaohongshu and WeChat official accounts, to publish city brand image publicity information and encourage tourists to actively comment. Positive promotion and comment forwarding can improve the perceived quality and loyalty of more non-locals towards the city's image, helping to create a more attractive and competitive city image.

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