

Research on Cosmetic Consuming Behavior of Female College Students Influenced by Weibo Marketing

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ABSTRACT

To investigate whether and how cosmetic enterprises influence the consuming behavior of female college students via Weibo (the Chinese micro-blogging platform), the author confirmed the measurement dimension by reading literature and interviewing and introduced trust as the intermediary variable. The brand awareness of cosmetic enterprises, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo are independent variables, and the purchase and recommendation intention are a dependent variable. The author designed the questionnaire and made a correlation analysis and regression analysis over the collected data. The research shows the five dimensions have significant positive effects on the trust and the purchase and recommendation intention, and the trust also has significant positive effects on the purchase and recommendation intention. Therefore, cosmetic enterprises should improve the advertorial quality, increase the vividness and creativity of the content, attach importance on socializing function, implement precise marketing, select the opinion leaders who have a positive and wide influence, and enhance the interest stimulation of Weibo.

Keywords: cosmetics; Weibo marketing; female college students; trust; purchase and recommendation intention

1. INTRODUCTION

At present, the global cosmetic market as a whole maintains steady growth. In 2018, the retail sales of cosmetics in China reached 261.9 billion yuan, up by 9.6% year-on-year. The Chinese market has become the most promising cosmetic market. And the network platform has also become a new marketing channel for merchants. Compared with traditional marketing channels, network marketing has fast-spreading speed, wide coverage, great return, high efficiency, short cycle, and low cost [1]. According to The 43rd Statistic Report of the Internet Development in China, as of December 2018, the number of netizens has reached 829 million, and the average amount of time spent online a week per person increased by 27.6 hours [2]. The 2018 Weibo User Development Report pointed out the user scale was growing steadily, the effect of interacting with fans was remarkable, more than 1.3 million certificated enterprise users settled in Weibo, and 32 vertical fields gained over 10 billion pageviews per month [3]. Weibo has become the most popular portal website.

The study selected female college students just exposed to cosmetics, who are in large numbers and pay great attention to appearance. They have a large demand for cosmetics and have certain consumption ability, but have not yet formed brand loyalty. Xihuai Liu (2013) pointed out in his research college students tended to follow the

mainstream, pursue fashion, make individual comparisons, and be affected by emotions. When the information received stimulated their emotions and satisfied their emotional needs to the maximum, they would purchase intention [4]. Therefore, understanding the needs of the group is the winning recipe for cosmetic enterprises.

2. RESEARCH DESIGN

2.1. Research Methods

A comprehensive study is conducted through qualitative and quantitative approaches. Qualitative research mainly includes literature research, while quantitative research mainly adopts questionnaire analysis and empirical analysis. The five dimensions of Weibo marketing were preliminarily confirmed by consulting relevant literature of Weibo, Weibo marketing, trust, and purchase and recommendation intention, combined with in-depth interviews. Then we proposed hypotheses and constructed models. According to the models, the questionnaire was designed and pre-survey was carried out. By analyzing the preliminary survey results, we improved the questionnaire and collected data. SPSS22.0 was used to analyze statistical samples, reliability and validity, and correlation and regression. Finally, we tested hypotheses, answered research questions, drew conclusions, and made suggestions.

2.2. Hypothesis Proposal

Based on previous research and interview results, the five dimensions of Weibo marketing were determined, and the intermediary variable trust was introduced, which was divided into cognitive trust and emotional trust. The dimensions of Weibo marketing were taken as independent variables, and purchase and recommendation intention as the dependent variable, and accordingly the hypotheses of pair relationships were carried out. Hypotheses were presented as follows:

Ha1: Brand awareness has a positive effect on cognitive trust.

Ha2: Brand awareness has a positive effect on emotional trust.

Ha3: Brand awareness has a positive effect on purchase and recommendation intention.

Hb1: The advertorial quality of Weibo has a positive effect on cognitive trust.

Hb2: The advertorial quality of Weibo has a positive effect on emotional trust.

Hb3: The advertorial quality of Weibo has a positive effect on purchase and recommendation intention.

Hc1: The social interaction of Weibo has a positive effect on cognitive trust.

Hc2: The social interaction of Weibo has a positive effect on emotional trust.

Hc3: The social interaction of Weibo has a positive effect on purchase and recommendation intention.

Hd1: The opinion leader of Weibo has a positive effect on cognitive trust.

Hd2: The opinion leader of Weibo has a positive effect on emotional trust.

Hd3: The opinion leader of Weibo has a positive effect on purchase and recommendation willingness.

He1: The interest stimulation of Weibo has a positive effect on cognitive trust.

He2: The opinion leader of Weibo has a positive effect on emotional trust.

He3: The interest stimulation of Weibo has a positive effect on purchase and recommendation intention.

H1: Cognitive trust has a positive effect on purchase and recommendation intention.

H2: Emotional trust has a positive effect on purchase and recommendation intention.

2.3. Model Construction

As shown in Fig. 1, the structure model was constructed with brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo

and the interest stimulation of Weibo as independent variables, purchase and recommendation intention as the dependent variable, and cognitive trust and emotional trust as intermediary variables.

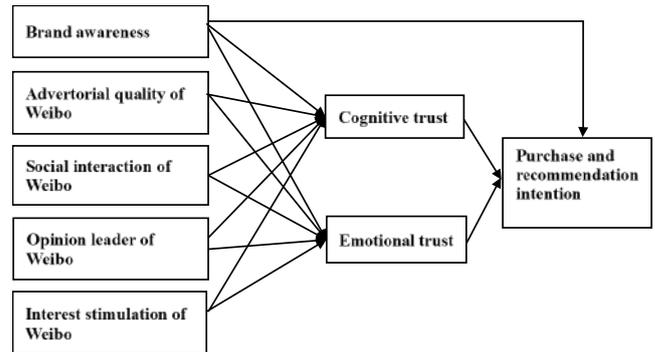


Figure 1. Structure model

2.4. Data Processing and Analysis

Questionnaires were handed out through QQ Space Dynamics, WeChat Moments, and WenJuanxing (the questionnaire mutual filling community), and a total of 700 were collected. After 78 invalid questionnaires were eliminated, 622 valid questionnaires were obtained, with an effective recovery rate of around 89%. The overall Cronbach's coefficient of the scale is $0.893 > 0.8$. In summary, the scale has good reliability, and the overall questionnaire and all scales have high internal consistency, which meets the needs of this study. The overall KMO value of the scale is $0.871 > 0.8$, and the probability of Bartlett's sphericity test is $P < 0.001$, thus the sphericity hypothesis is rejected. The result shows the scale has good structural validity.

3. RESULTS

3.1. Statistical Analysis of Weibo Users' Basic Information

As can be seen from Table 1, women aged 18-24 account for more than 83% and women who have college degrees or above represent over 95%, which suggests Weibo is more popular among young people, and those with college degrees or above are more enthusiastic about cosmetic micro-blogs. Monthly average consumption level is mainly concentrated between 1001 and 2000 yuan, and the vast majority of female college students' cosmetic consumption accounts for more than 20% of the total, showing female college students have certain consumption ability and relatively high cosmetic demand. And students with higher monthly average expenses have higher cosmetic consumption proportion, and students with higher degrees also have higher cosmetic consumption proportion. That reveals female students with higher degrees have a certain

income, who have a greater demand for cosmetics, and are more likely to purchase them. Female college students using Weibo for more than 30 minutes a day account for 73%, and those who log into Weibo for more than two times a day constitute 82%. It reflects college students are

generally dependent on social media, and female college students are loyal fans and potential customers of settled enterprises or brands on Weibo. According to cross-analysis, the more time and times Weibo is used, the higher the proportion of cosmetic consumption is.

Table 1. Basic Information Analysis of Sample

Project	Options	Number	Percentage
Age	18-24	518	83.23%
	25-31	60	9.65%
	32 or above	44	7.07%
Whether or not to use Weibo	Yes	622	100%
Education	High school or below	0	0%
	Junior College	102	16.40%
	Undergraduate	489	78.62%
	Graduate	28	4.50%
	PhD or above	3	0.48%
Monthly Average Consumption Level	Under 1000 yuan	117	18.81%
	1001-2000 yuan	341	54.82%
	2001-3000 yuan	110	17.68%
	3001 yuan or above	54	8.68%
Monthly Average Cosmetics Consumption Proportion	20% or below	258	41.48%
	21%-40%	252	40.51%
	41%-60%	71	11.41%
	61%-80%	33	5.31%
	80% or above	8	1.29%
Daily Average Use Time of Weibo	30 min or below	171	27.49%
	30 min to 1 h	239	38.42%
	1-2 h	129	20.74%
	2 h or above	83	13.34%
Daily Times of Logging into Weibo	1 time or below	114	18.33%
	2-3 times	260	41.8%
	4-5 times	136	21.86%
	6 times or above	112	18.01%

3.2. Correlation Test between Weibo Marketing and Trust and Purchase Intention

As can be seen from Table 2, the Pearson coefficients between brand awareness and cognitive trust, emotional trust, and purchase and recommendation intention are 0.111, 0.158, and 0.201 respectively, significantly correlated at the level of 0.01. Therefore, brand awareness has a significantly positive correlation with cognitive trust, emotional trust, and purchase and recommendation intention. The Pearson coefficients between the advertorial quality of Weibo and cognitive trust, emotional trust, and purchase and recommendation intention are 0.219, 0.209, and 0.195 respectively, which are significantly correlated at the level of 0.01. Thus, the advertorial quality of Weibo has a significantly positive correlation with cognitive trust, emotional trust, and purchase and recommendation intention. The Pearson coefficient between the social interaction of Weibo and cognitive trust, emotional trust, and purchase and recommendation intention are 0.199, 0.186, and 0.265 respectively, all of which are significantly correlated at the level of 0.01. That indicates the social interaction of Weibo has a significantly positive correlation with cognitive trust, emotional trust, and purchase and

recommendation intention. The Pearson coefficients between the opinion leader of Weibo and cognitive trust, emotional trust, and purchase and recommendation intention are 0.330, 0.330, and 0.293 respectively, all of which are significantly correlated at the level of 0.01. Therefore, the opinion leader of Weibo has a significantly positive correlation with cognitive trust, emotional trust, and purchase and recommendation intention. The Pearson coefficients between the interest stimulation of Weibo and cognitive trust, emotional trust, and purchase and recommendation intention are 0.254, 0.289, and 0.307 respectively, significantly correlated at the level of 0.01. Thus, the interest stimulation of Weibo has a significantly positive correlation with cognitive trust, emotional trust, and purchase and recommendation intention. The Pearson coefficients between cognitive trust and purchase and recommendation intention is 0.290, which is significantly correlated at the level of 0.01, showing cognitive trust has a significantly positive correlation with the purchase and recommendation intention. The Pearson coefficient between emotional trust and purchase and recommendation intention is 0.307, which is significantly correlated at the level of 0.01, suggesting there is a significantly positive correlation between emotional trust and purchase and recommendation intention. Therefore, we can preliminarily

confirm the hypotheses that brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo are positively correlated with cognitive trust, emotional trust, purchase, and recommendation intention, and cognitive trust and emotional trust are positively correlated with purchase and recommendation intention.

3.3. The influence of Weibo marketing on cognitive trust, and emotional trust and purchase intention

3.3.1. Regression analysis of Weibo marketing and cognitive trust

As shown in Table 3, the linear regression analysis is conducted with the brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo and the interest stimulation of Weibo as independent variables, cognitive trust as a dependent variable. The regression equation is obtained as following: cognitive trust = 3.278 + 0.097* brand awareness = 2.843 + 0.210* the advertorial quality of Weibo = 2.880 + 0.196* the social interaction of Weibo= 2.716 + 0.274 * the opinion leader of Weibo = 2.730 + 0.246 * the interest stimulation of Weibo.

Table 2. Correlation Analysis of Subscales and Aggregate Scales

	Average Value	Cognitive Trust	Emotional Trust	Purchase and Recommendation Intention
Brand Awareness	3.72	0.111**	0.158**	0.201**
Advertorial quality of Weibo	3.78	0.219**	0.209**	0.195**
Social interaction of Weibo	3.86	0.199**	0.186**	0.265**
Opinion leaders of Weibo	3.37	0.330**	0.330**	0.293**
Interest stimulation of Weibo	3.69	0.254**	0.289**	0.307**
Cognitive Trust	3.64		0.793**	0.290**
Emotional Trust	3.69			0.307**
Purchase and Recommendation Intention	3.58			

*P<0.05 **P<0.01

Table 3. Regression Analysis of Weibo Marketing and Cognitive Trust

Non-standardized Coefficient		Standardized Coefficient		t	P	VIF	F
B	Standard Error	Beta	Beta				
Constant	3.278	0.133		24.659	0.000**		
Brand Awareness	0.097	0.035	0.111	2.772	0.000**	1.000	7.683**
Constant	2.843	0.145		19.568	0.000**		
Advertorial quality of Weibo	0.210	0.038	0.219	5.581	0.000**	1.000	31.151**
Constant	2.880	0.152		18.894	0.000**		
Social interaction of Weibo	0.196	0.039	0.199	5.065	0.000**	1.000	25.654**
Constant	2.716	0.110		24.796	0.000**		
Opinion leaders of Weibo	0.274	0.031	0.330	8.711	0.000**	1.000	75.879**
Constant	2.730	0.142		19.253	0.000**		
Interest stimulation of Weibo	0.246	0.038	0.254	6.536	0.000**	1.000	42.724**

Dependent Variables: Cognitive Trust
* P<0.05 ** P<0.01

The T values of brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo are 2.772, 5.581, 5.065, 8.711, and 6.536 respectively, and their

statistical significance are all P<0.01, indicating the regression coefficient test results are significant and all pass the T-test, thus the regression equation is effective. The F values are 7.683, 31.151, 25.654, 75.879, and 42.724,

which all pass the F test, indicating brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and interest stimulation of Weibo have impacts on cognitive trust. VIF values are all less than 5, with poor collinearity, showing the regression equation is scientific and reasonable. Brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo have significantly positive effects on cognitive trust.

3.3.2. Regression Analysis of Weibo Marketing and Emotional Trust

The linear regression analysis is conducted with brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo as independent variables, and the emotional trust as a dependent variable. As shown in Table 4 below, the regression equation is emotional trust =3.166+0.142* brand awareness =2.914+0.206* the

advertorial quality of Weibo=2.968+0.188* the social interaction of Weibo =2.746+0.281* the opinion leader of Weibo =2.632+0.288* the interest stimulation of Weibo. The T values of brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo are 3.991, 5.317, 4.708, 8.715, and 7.521 respectively, and their statistical significance are all P<0.01, indicating the regression coefficient test results are significant and all pass the T-test, thus the regression equation is effective. F values are respectively 15.929, 28.269, 22.164, 75.945, and 56.566, all of which pass the F test, indicating brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo have impacts on emotional trust. VIF values are all less than 5, with poor collinearity, revealing the regression equation is scientific and reasonable. Brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo have significantly positive effects on emotional trust.

Table 4. Regression Analysis of Weibo Marketing and Emotional Trust

Non-standardized Coefficient Standardized Coefficient				t	p	VIF	F
B	Standard Error	Beta					
Constant	3.166	0.136		23.330	0.000**		
Brand Awareness	0.142	0.036	0.158	3.991	0.000**	1.000	15.929**
Constant	2.914	0.150		19.481	0.000**		
Advertorial quality of Weibo	0.206	0.039	0.209	5.317	0.000**	1.000	28.269**
Constant	2.968	0.157		18.904	0.000**		
Social interaction of Weibo	0.188	0.040	0.186	4.708	0.000**	1.000	22.164**
Constant	2.746	0.113		24.408	0.000**		
Opinion leaders of Weibo	0.281	0.032	0.330	8.715	0.000**	1.000	75.945**
Constant	2.632	0.144		18.254	0.000**		
Interest stimulation of Weibo	0.288	0.038	0.289	7.521	0.000**	1.000	56.566**

Dependent Variables: Emotional Trust
*P<0.05 **P<0.01

3.3.3. Regression Analysis of Cognitive Trust and Emotional Trust and Purchase Intention

The linear regression analysis is conducted with cognitive trust and emotional trust as independent variables, and purchase and recommendation intention as dependent variables. As shown in Table 5 below, the regression equation is purchase intention =2.425+0.319* cognitive trust =2.373+0.328* emotional trust.

The T values of cognitive trust and emotional trust are 7.558 and 8.034, and their statistical significance are both P<0.01, indicating the regression coefficient test results are prominent. Therefore, both of them pass the T-test, demonstrating the regression equation is effective. The F values are 57.124 and 64.540, both of which pass the F test, indicating cognitive trust and emotional trust influence

purchase and recommendation intention. VIF values are both less than 5, with poor collinearity, showing the regression equation is scientific and reasonable. Therefore, cognitive trust and emotional trust have significantly positive effects on purchase and recommendation intention. To sum up, brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo have significant impacts on cognitive trust, emotional trust, and purchase and recommendation intention.

4. RESEARCH CONCLUSIONS AND SUGGESTIONS

The study shows brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo

positively influence the purchase and recommendation intention. Cognitive trust and emotional trust influence the purchase and recommendation intention and play an intermediary role in the positive impacts of brand awareness, the advertorial quality of Weibo, the social interaction of Weibo, the opinion leader of Weibo, and the interest stimulation of Weibo on purchase and recommendation intention. The above hypothesis is true. And the following suggestions are put forward accordingly.

4.1. Strengthening the advertorial quality of Weibo

With the development of advertisements and the improvement of audiences' experience, educational background, and cognition, they easily resist the advertisement. Therefore, enterprises should not take Weibo as an advertising space, simply implanting products into micro-blogs, and directly publicizing products and themselves, which easily make a bad impression on audiences. Yan Sui (2015) believed consumers under the influence of postmodernism were more interested in entertaining, perceptual, visualized, or dramatized media information, rather than rational statements or "lectures".

Thus, when releasing micro-blogs, enterprises should pay attention to the advertorial quality. The best practice is to put the advertisement behind, ensure wonderful and useful front content to make audiences indulge, and then blend the advertisement with the content of the article quietly. When consumers sigh "So this is advertising" after reading, it proves consumers receive promotional information and get impressed. The content composition of micro-blogs should be rich and diverse, including not only texts but also images and videos, for images and videos have higher acceptability and conversion rate than do texts.

4.2. Focusing on the Vividness and Innovation of Weibo Content

Enterprises should use topics to create marketing advertisements, as Weibo Hot Research can reach a peak in reading, reviewing, and forwarding amount within a short period. Integrating topics with enterprises' products to introduce corresponding advertisements can quickly boost exposure, and low-cost, efficient, and fast promotion have good effects on new products and businesses. It can also reinforce old products and enterprises, and even brings about the visual impact, refreshing the old prejudice.

Table 5. Regression Analysis of Cognitive Trust and Emotional Trust and Purchase Intention

Non-standardized Coefficient Standardized Coefficient			t	P	VIF	F
B	Standard Error	Beta				
Constant	2.425	0.157	15.482	0.000**		
Cognitive Trust	0.319	0.042	0.290	7.558	0.000**	1.000
Constant	2.373	0.154		15.404	0.000**	
Emotional Trust	0.328	0.041	0.307	8.034	0.000**	1.000

Dependent Variables: purchase and recommendation intention

4.3. Attaching Importance to Social Functions of Weibo and Implement Precise Marketing

The functions of private messages and comments on Weibo shorten the distance between consumers and enterprises, especially when private messages and comments are replied by enterprises so that consumers can feel valued and have positive attitudes towards enterprises. In the research on creating the shopping websites atmosphere, Chubing Zhang et al. (2017) found among the factors of shopping websites atmosphere, the influence of perceived interactivity on consumer attitudes was verified [6]. This requires enterprises to reply to private messages on Weibo in a timely and accurate manner and understand the feelings and experiences of consumers in time. When screening comments to reply, they need to select representative ones for accurate and interesting responses, to show enterprises' professional and vigorous images to consumers.

4.4. Improving the Recommendation Role of Opinion leaders

Lin Mu (2012) found e-commerce influencers' charm, images, and texts posted on Weibo, interaction with users, and loyalty of fans positively affect users' clothing consumption intention in virtual stores [7]. Enterprises should choose opinion leaders who are consistent with their brands, whose values are accordant with corporate brand values, and whose personal cognitive structures and values conform with social values. At the same time, they have great social influence, and their own unique and creative opinions. Such opinion leaders serve well in controlling, guiding, and coordinating, and have higher acceptability and credibility in conveying product information.

4.5. Enhancing the Stimulation Effect of Marketing Interests on Weibo

Consumers pay attention to personal interests, so the interests of marketing information on Weibo should be enhanced. Enterprises should timely provide consumers with discount information of products to attract consumers to buy; they should also release micro-blogs containing marketing information and encourage consumers to forward and share, such as hitting “likes”, commenting, and forwarding for a lottery, to make consumers spread the product information simultaneously, resulting in large amounts in reading and forwarding, thus achieving efficient marketing. In this way, consumers understand enterprises’ brand information, have trust in them, and are encouraged to purchase. Thus, a group of consumers with high stickiness and loyalty are developed. Besides, enterprises should adopt a scientific and effective CRM system to manage fans accumulated through Weibo, and push differentiated and customized content according to the personalized needs of users, to realize precise marketing. Yongsheng Jin et al. (2011) found in their research when marketing on Weibo, enterprises should pay attention to the micro-blog operation, and regard it as a long-term brand-building strategy, and pointed out the importance of keeping enterprise activity, and the number and stickiness of users on Weibo.

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