Tourism Image Endorsement Based on Experiment and Variance Analysis

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Abstract. This study chooses tourist attractions as the research object, and explores the response of female tourists to spokesmen of different tourist attractions. Inter-group experimental design was used to combine online network survey with off-line field survey. In data analysis, MATLAB software was used to analyze the variance of the experimental results, and to test the significance of the experimental results. In the aspect of result drawing, Origin software was used to render the result pictures. During the experiment, the subjects were randomly assigned to different experimental conditions to balance or reduce the errors caused by the differences between the subjects, so as to analyze the different responses of the subjects to stimuli. The results show that female tourists differ in their involvement of spokespersons for tourism products with different involvement degrees. On this basis, the brand strategy of tourist attractions is discussed and some suggestions are put forward.

1. Introduction
In order to enhance the appeal of the endorser, and thus positively influence the attitude of consumers and paying intention, many brands have made a lot of surprises and racked their brains on the choice of endorsers. In recent years, some brands have begun to use counter-gender stereotypes in advertising. Different from traditional advertisements, such advertisements violate the traditional concept of gender role generally accepted by the public. The most common and controversial is the male endorsement of tourism products. However, some brands have also experienced errors in improper advertising methods, which has greatly reduced consumer satisfaction. Faced with the new form of counter-gender stereotypes endorser advertising, brands may face many problems and feel overwhelmed. Why is the response of the same female endorsement product consumer so obvious? How to choose an endorser to achieve the best results?

Based on the theory of the degree of involvement, this study attempts to explore the impact of different types of endorsers on the involvement of consumers in the penetration of different products, with a view to the existing research on counter-gender stereotypes. Make useful expansions and additions and explore future research directions.

2. Literature Review
Counter-male stereotypes endorser advertisements refer to advertisements in which the endorser's physical gender is male but shows a higher femininity and lower masculinity. Many consumers have shown a positive attitude towards such ads (Baxter et al., 2016; Chu et al., 2016), which is why more and more brands and companies have begun to use such ads in recent years. This article has a small number of documents. Most scholars pay attention to the female image in advertising (Prieler and Centeno, 2013; Velandia-Morales and Rincon, 2014) or the counter-female stereotypes endorser
advertisement (Duker and Tucker, 1977; Orth and Holancova, 2004). A small number of scholars have discussed the counter-gender stereotypes of endorser advertisements (such as Yin Chengyi and Chen Yini, 2012). This paper will also make up for this theoretical flaw, which has theoretical value and significance. It can be seen that the research on the counter-gender stereotypes is still not enough.

Involvement refers to the disturbance state of the individual's heart. It determines how individuals respond to external stimuli (Andrew et al., 1990) and can be divided into product involvement and advertising involvement. Product involvement is the consumer's interest, enthusiasm, and excitement about a particular product category (Goldsmith and Emmert, 1991). The fine processing possibility model (ELM model) of Petty et al. (1983) is commonly used in the academic community to explain the influence path of the degree of involvement. Different from product involvement, the degree of ad involvement is the degree of interest the audience gives to the advertising information or the psychological state of the contact with the advertisement. More scholars agree with Zaichkowsky (1994) that advertising involvement includes cognitive involvement and emotional involvement. Cognitive involvement refers to the level of personal processing of information, and emotional involvement is attached to the individual's feelings. Zaichkowsky (1994) further proposed a personal involvement scale (PII) for measuring advertising penetration. Pfau (1994) found that advertising involvement further affected the effectiveness of advertising, and Lord (1994) also put forward the same view.

3. Research Hypothesis
In the purchase of high-involvement tourism products, changes in consumer attitudes will follow the central persuasion path (Johar and Sirgy, 1991), and will invest a lot of time and effort to analyse the content of advertising and products (Laurent and Kapferer, 1985), peripheral clues have a smaller impact on consumers' attitudes and consumer choices. Consumers will pay more attention to the products themselves including the function and accuracy of marketing (Dens and Pelsmacker, 2010), then compared to counter-male endorser ads, female endorser ads will provide consumers with more information about the use experience, will enhance cognitive involvement degree. In addition, because consumers are looking forward to a professional introduction when purchasing high-impact products, female endorsers are more likely to match tourism products than counter-male endorsers, giving them a more professional feel, it will increase emotional involvement.

H1a: For feminine temperament consumers, when choosing high-involvement tourism products, compared with counter-male endorser ads, female endorser ads will significantly increase their cognitive involvement.

H1b: For feminine temperament consumers, when choosing high-involvement tourism products, compared with counter-male endorser ads, female endorser ads will significantly increase their emotional involvement.

When purchasing low-involvement tourism products, consumers will not over-analyse the content of advertisements and products (Laurent and Kapferer, 1985). Consumers don't care about the functions embodied in advertisements. The increase in cognition involvement of counter-male endorser advertisements and female endorser advertisements on consumers will not be significant. However, as consumers are affected by peripheral clues at this time, there will be greater emotional appeals, and counter-male endorser advertisements can improve emotional involvement.

H2a: For feminine temperament consumers, the difference between counter-male endorser ads and female endorser ads does not significantly change their cognitive involvement when choosing low-involvement tourism products.

H2b: For feminine temperament consumers, when choosing low-involvement tourism products, compared with female endorser ads, counter-male endorser ads will significantly increase their emotional involvement.

For high-involvement tourism products, consumers will spend a lot of time and energy analysing the content of advertising, while consumers will not be interested in advertising and products when purchasing low-involvement tourism products. Therefore, compared with low-involvement products,
the influence of the type of endorser of high-involvement products on consumers' cognitive involvement is more obvious.

When purchasing low-involvement tourism products, consumers will be affected by peripheral clues at this time, and there will be greater emotional appeals (Puntoni et al., 2009), while low involvement makes consumers irrational. More decisions are determined by subjective and emotional.

H3a: Relatively low-involvement products, the impact of changes in the type of advertising endorsers of high-impact products on consumers’ cognitive involvement is more pronounced.

H3b: Relatively high-entanglement products, the impact of changes in the type of advertising endorsers of low-impact products on consumers’ emotional involvement is more pronounced.

4. Study Design

4.1. Experimental design and process

This study used a method of inter-group experiment 2 (counter-male stereotype endorser vs. female endorser) × 2 (high-entanglement product vs. low-involvement product). In the choice of the endorser, considering the subject's familiarity and affection will have an impact on the consumer's position, a photo of the ordinary person is selected on the website. In the selection of tourism products, the past literature was reviewed and investigated to determine that the spring is representative of high involvement, and park is representative of low involvement. Using the Photoshop software to synthesize and edit the endorser image and product style, four different print ads, namely two types of endorsers, respectively, endorsement springs and parks were used to virtualize the brands in the experimental materials.

We invited the subjects and randomly divided the subjects into four groups. Describe the experimental scenario to the participants, assuming that they are preparing to purchase a certain product and provide the name and reference price of the product, display the endorser advertisement to the subject, and then issue a questionnaire to the subject for formal experiment.

The sample was selected as a college student in a university in Shaanxi Province. A total of 152 questionnaires were distributed and 143 were returned. After removing the masculine sample and the sample with too short a response time, the sample were 115, including 94 females. There are 76 people aged between 20 and 22, accounting for 66.09% of the total sample.

4.2. Measures

Gender role of the subjects was measured using the Student Gender Role Scale (CSRI-50) by Liu Dianzhi et al. (2011). This scale is divided into a male subscale and a female subscale, each subscale contains 16 items, a total of 32 items, using a 7-level Likert scale. The gender scale of the endorser selected Lu Qin and Su Yanjie (2003) for the scale, including 14 items of the male subscale and 12 items of the female subscale, for a total of 26 items, using a 5-level Likert measure.

Product involvement is based on Vaughn's (1986) 3 test, 5-point subscale. The advertising involvement degree is based on the personal involvement scale designed by Zaichkowsky (1994), which includes the cognitive involvement degree 5 measurement, the 5-level Likert subscale, and the emotional involvement degree 5 and 5-level Likert subscales.

4.3. Results and Discussion

ANOVA analysis was used to explore the cognitive and emotional involvement scores of different endorser types in high-involvement products. As a result, as shown in Figure 1, the feminine temperament consumer's cognitive involvement is significantly higher than that of counter-male endorser advertising ($M_{female-cognitive}=3.51$, $M_{counter-male-cognitive}=2.21$, $F(1,56)=65.26$, $p<0.05$), the results support H1a; its emotional involvement is significantly higher than counter-male endorser advertising ($M_{female-emotion}=3.44$, $M_{counter-male-emotion}=2.84$, $F(1,56)=14.60$, $p<0.05$), the results support H1b.

As shown in Figure 2, feminine temperament consumers have no significant change in cognitive involvement for female endorser advertisements and counter-male endorser advertisements for low-
involvement products (M_{female-cognitive}=2.64, M_{counter-male-cognitive}=2.37, F(1,57)=1.37, p=0.25>0.05), the result supports H2a; for the low-involvement product, the emotional involvement of counter-male endorser advertisement is higher than the female endorser advertisement (M_{femaleemotion}=2.41, M_{counter-male-emotion}=3.39, F (1, 57) = 31.15, p < 0.05), and the results support H2b.

The interaction effect of modern speaker type and product involvement on consumer cognitive penetration was significant (F (1,114) =12.875, p<0.05), as shown in Figure 3. The increase of cognitive penetration of high-involvement products is more obvious. That is to say, the change in the type of advertising endorser with high involvement is more prominent than the low-involvement product. The result supports H3a. The interaction effect of endorser type and product involvement on consumer emotional involvement was significant (F (1,114) =45.014, p<0.05). It is found from Figure 4 that the emotional involvement of low- involvement products is more pronounced. That is to say, compared with the high- involvement product, the influence of the type of advertising endorser of the low- involvement product on the emotional involvement of the consumer will be more obvious. The result supports H3b.

5. Conclusion

Firstly, the impact of two types of endorser advertisements on consumer involvement in different intrusion products was examined. On the one hand, for high-involvement tourism products, compared with counter-male stereotypes endorser ads, female endorser ads can significantly increase consumer perceptions of involvement and emotional involvement. On the other hand, for low-involvement tourism products, the endorser's change did not make the consumer's cognitive involvement greatly changed; however, in terms of emotional involvement, comparing female endorser advertising, counter-mass endorser advertising can significantly increase the emotional involvement of consumers.

Secondly, the interaction effect of ad endorser type and product involvement on consumer ad involvement is examined. In contrast to low-impact products, changes in the type of endorsers with high
involvement are more pronounced in terms of consumer perceptions. In contrast to high-impact products, the impact of low-involvement ad endorser types on consumers' emotional involvement is more pronounced.

In summary, this paper proposes the following management implications for sharing:

Firstly, provide theoretical support for companies to choose endorsers. Consider the impact of product involvement when choosing an endorser. Companies should adopt different forms of advertising and content to cater to changes in consumer advertising. For example, according to the present paper, for low-involvement products, counter-male endorser advertisements can increase the emotional involvement of consumers, and enterprises can pay more attention to consumers' emotional appeals in advertisements.

Secondly, provide ideas for men to endorse tourism products. This study can pro-vide theoretical support for men to choose tourism product endorsements in the future. Male endorsers should consider more tourism products that endorse low involvement, and pay attention to consumers' emotional appeals in the process of endorsement.

6. Limitations and Future Directions
Although the experiment is done as much as possible in the research process, the experimental results are more abundant and complete, but due to many limitations, there are still many limitations in this paper. Firstly, the limitations of the selected product. The experimental products selected in this study belong to the female beauty products, and are not involved in the other categories of tourism products. Future research can explore more tourism product categories. Secondly, the limitations of the endorser. In order to exclude the influence of the familiarity and affection of the endorser, the choice of the stimulant is two amateurs. In reality, the brand often chooses the endorser to be a celebrity. These contents are not covered in this study, and future research can continue to explore.

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