



A study on the mechanism of the effect of web celebrity live streaming on consumers' purchase intention

——Moderated mediating effects model with differences in consumer types

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Abstract. This research analyzes the mechanism for the effect of web celebrity live streaming on consumers' purchase intention. It shows that professionalism, attractiveness and interactivity of web celebrities have a significant positive effect on consumers' purchase intention through perceived value. Consumer type reinforces the mediating effect of perceived value in live web celebrity and consumer purchase intention. The research helps enterprises to accurately screen Internet celebrities according to their own product audience types, and provides enterprises with more accurate e-commerce sales strategies.

Keywords: web celebrity purchase intention consumer type

1 Introduction

Web celebrity live streaming combines web celebrity economy and live e-commerce to form a new model of "web celebrity + e-commerce + live broadcast", which arouses the resonance and empathy of users and contributes to the e-commerce economy.

Web celebrity live broadcast has strong real-time dynamic two-way interaction [2]. Consumer-perceived value is a comprehensive evaluation of the utility of a product after the consumer weighs the acquisition and payment [3]. Consumer perceived value boundaries are divided into two categories: practical value and exciting value. Practical value is the perception of the quality and performance of the product. Exciting value is the psychological pleasure generated in the shopping atmosphere [4]. The higher the functional perceived value and emotional perceived value of the product, the more conducive it is to generate purchase intention [1]. Consumer perception plays a partial mediating role between the characteristics of online live broadcasts and consumers' purchase intention [5].

Chen Meimei divides consumers into the rational type and impulsive type [6]. Consumer type can regulate the relationship between personalized recommendations and consumer perception [7]. Rational and impulsive consumers will have different

perceived values under the characteristics of online celebrity live streaming, which will lead to different degrees of purchase intention.

This research started from the three dimensions of professionalism, attractiveness and interactivity that were highlighted by the live broadcast of web celebrities, based on the theory of perceived value and social cognition, established a Structural Equation Modeling with perceived value as mediating variable and consumer type as moderating variable shown in Fig.1.

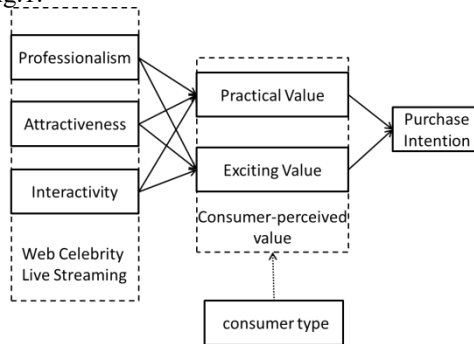


Fig. 1. Theoretical Model [Photo credit: Original]

2 Method

With the help of the Questionnaire Star platform, the questionnaires were shared on social media platforms such as WeChat groups and Weibo through links and QR codes to collect data. The proportion of males and females in the research sample was relatively balanced (134 males, 176 females), young people under the age of 35 accounted for 43.9%, middle-aged and elderly people over 46 years old accounted for 41.3%, 67.1% of the sample had a university education background, and 59.4% of the sample was employees in enterprises and institutions. The monthly disposable income was between 1,000-5,000 yuan. The content of the questionnaire included three parts: demographic characteristics, consumer purchase characteristics scale, and online celebrity live broadcast characteristics scale. All measurement items in this study were measured using the Likert 5-point scale method. SPSS 23.0 and AMOS23.0 were used to construct a structural equation model, the mediating effect of perceived value was analyzed by a sequential test process, and the moderating effect of consumer type was analyzed by a hierarchical test process.

3 Results

3.1 Path Analysis

The fitting index of the model was obtained as follows, $\chi^2/df=2.696<3$, $GFI=0.883>0.85$, $AGFI=0.843>0.8$, $RMSEA=0.074<0.08$, $IFI=0.961>0.9$, $TLI=0.952>0.9$, $CFI=0.961>0.9$, each fitness index had reached the critical value, and

the model fitting degree was good. The model path coefficients were shown in Table 1 below. The p-values of all path coefficients were less than 0.05, indicating that the professionalism, attractiveness and interactivity had a significant positive impact on the perceived practical value and perceived excitement value.

Table 1. Path Factor [Table credit: Original]

| Paths | Estimate | Standardized | S.E. | C.R. | p |
|------------------------------------|----------|--------------|-------|--------|-----|
| Professionalism→Practical Value | 0.300 | 0.337 | 0.064 | 4.701 | *** |
| Professionalism→Exciting Value | 0.258 | 0.245 | 0.071 | 3.625 | *** |
| Attractiveness→Practical Value | 0.306 | 0.308 | 0.062 | 4.961 | *** |
| Attractiveness→Exciting Value | 0.270 | 0.273 | 0.070 | 3.863 | *** |
| Interactivity→Practical Value | 0.318 | 0.335 | 0.070 | 4.547 | *** |
| Interactivity→Exciting Value | 0.423 | 0.410 | 0.080 | 5.313 | *** |
| Practical Value→Purchase Intention | 0.302 | 0.289 | 0.067 | 4.529 | *** |
| Exciting Value→Purchase Intention | 0.661 | 0.687 | 0.066 | 10.090 | *** |

3.2 Mediation effect test

The mediation effect test’s results were shown in Table 2 below. The p-values of all coefficients a, b, and c were less than 0.05 and the confidence intervals of the indirect effect coefficients did not contain 0. The influence of professionalism and interaction on purchase intention was not significant, and attractiveness had a significant impact on purchase intention.

Table 2. Mediation Effect Test [Table credit: Original]

| Paths | Effect factor | | | | | Mediation effect | |
|------------------------------------|---------------|-------|-------|-----------------|-------|--------------------------|-------|
| | c | a | b | a*b(95%Boot CI) | c' | Types | ab/c |
| Professionalism→P.Value →Intention | 0.739 | 0.753 | 0.653 | [0.363,0.627] | 0.247 | Full Mediation effect | 0.665 |
| Professionalism→E.Value →Intention | 0.739 | 0.732 | 0.753 | [0.457,0.644] | 0.188 | Full Mediation effect | 0.745 |
| Attractiveness→P.Value →Intention | 0.696 | 0.706 | 0.651 | [0.326,0.610] | 0.236 | Partial Mediation effect | 0.660 |
| Attractiveness→E.Value →Intention | 0.696 | 0.695 | 0.757 | [0.431,0.636] | 0.169 | Partial Mediation effect | 0.755 |

| | | | | | | | |
|---------------------------------|-------|-------|-------|---------------|-------|-----------------------|-------|
| Interactivity→P.Value→Intention | 0.715 | 0.746 | 0.684 | [0.393,0.642] | 0.204 | Full Mediation effect | 0.714 |
| Interactivity→E.Value→Intention | 0.715 | 0.750 | 0.800 | [0.505,0.713] | 0.114 | Full Mediation effect | 0.840 |

3.3 Moderating effect test

The moderating effect test’s results were shown in Table 3 below. The mediating effects of the six paths were all moderated by the type of consumers. When the perceived practical value was used as the mediating variable, the consumer type adjusts the front and back paths. With professionalism as the independent variable, for rational consumers, the mediating effect of perceived practical value was 0.483. For impulsive consumers, the mediating effect of perceived practical value was 0.426. It was believed that consumers' rational purchasing characteristics will strengthen the mediating effect of perceived practical value between professionalism and purchase intention. The same conclusion was obtained when attraction and interactivity were used as independent variables.

When perceived excitement value was used as a mediating variable, consumer type mainly moderated the first half of the path. With professionalism as the independent variable, for rational consumers, the mediating effect of perceived exciting value was 0.471, and for impulsive consumers, the mediating effect of perceived exciting value was 0.647, and it was believed that consumers' impulse buying characteristics will strengthen the mediating effect of perceived excitement value between professionalism and purchase intention. The same conclusion was obtained when attraction and interactivity were used as independent variables.

Table 3. Moderating Effect Test [Table credit: Original]

| U: consumer type | Coefficients | | | | | Moderating effects | |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------------------------|-------|
| Paths | c ₃ | a ₁ | a ₃ | b ₁ | b ₂ | Mediation effect under regulation | path |
| Professionalism→P.Value→Intention | -0.198 | 0.871 | -0.224 | 0.500 | 0.246 | (0.871-0.224U)(0.5+0.246U) | both |
| Professionalism→E.Value→Intention | -0.198 | 0.844 | -0.229 | 0.766 | -0.029 | (0.844-0.229U)(0.766) | both |
| Attractiveness→P.Value→Intention | -0.203 | 0.807 | -0.175 | 0.470 | 0.308 | (0.807-0.175U)(0.47+0.308U) | both |
| Attractiveness→E.Value→Intention | -0.203 | 0.792 | -0.188 | 0.734 | 0.026 | (0.792-0.188U)(0.734) | first |

| | | | | | | | |
|---------------------------------|--------|-------|--------|-------|--------|------------------------------|-------|
| Interactivity→P.Value→Intention | -0.189 | 0.850 | -0.221 | 0.492 | 0.278 | (0.850-0.221U)(0.492+0.278U) | both |
| Interactivity→E.Value→Intention | -0.189 | 0.831 | -0.184 | 0.795 | -0.014 | (0.831-0.184U)(0.795) | first |

4 Discussions and conclusion

Senior web celebrity through detailed descriptions of product features and user experience, they play the role of opinion leaders and improve consumers' perceived practical value of products. The strong personal charm of Internet celebrities and the highly interactive shopping mode in the live broadcast room give consumers an immersive experience, to increase their perceived exciting value.

Consumers' perception of external information affects their behavior. Live streaming of goods dynamically displays products in the form of videos, allowing consumers to observe product details more intuitively and clearly, thereby stimulating consumers' purchase intention and realizing the conversion of Internet celebrity traffic.

External value factors such as product reliability, practicability, and cost-effectiveness will affect the purchase intention of rational consumers to a greater extent; Pleasure and internal emotions of consumers will affect impulse consumers' purchase intention to a greater extent. Consumer type also influences consumer purchase behavior. The atmosphere or promotions created by web celebrity live streaming will have less impact on the rational consumer, while impulsive consumers often pay for the emotional value attached to products.

5 Suggestion and insignificance

First, enterprises should pay attention to the training of professional quality of Internet celebrities and the exploration of personal characteristics. Second, companies should pay attention to purchasing characteristics of consumers and adjust the form of live broadcasts individually. Third, the live broadcast platform should formulate relevant measures to regulate the behavior of Internet celebrity anchors and create a good live broadcast environment.

There are certain limitations in this study. The sources of the questionnaire survey samples are not diverse enough, so future research should expand the source of samples to make the conclusions more representative. In addition to perceived value, there may be other factors that influence the formation of consumers' willingness to purchase, such as consumption scenarios and consumer product types. In the future, the research scope can be narrowed, and the formation mechanism of purchase intention can be further studied in detail for a certain type of product or a specific consumption scenario.

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