The Impact of Live Streaming Anchors on Beauty Product Purchase Intention

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Abstract. The purpose of this study is to investigate the influence of anchors on the purchase intention of beauty products. This study used random sampling method to conduct a questionnaire survey on 400 consumers who purchased beauty products in e-commerce live broadcasts. Descriptive analysis, correlation analysis and regression analysis were conducted by SPSS 25.0 to establish a research model of anchors’ purchase intention of beauty products. The results of the study showed that anchors’ perceived professionalism, perceived reputation, perceived interactivity, and perceived product involvement had a significant positive effect on consumers' purchase intention of beauty products.

Keywords: e-commerce live streaming, anchor, beauty products, purchase intention.

1 Introduction

According to the 52nd China Internet Development Statistics Report released by the China Internet Network Information Center (CNNIC) in August 2023: as of June 2023, the scale of China's live streaming users reached 765 million people. Similarly, live streaming on Facebook (Facecook) is widely used, with the average number of daily live streams increasing from 2 billion in 2017 to 3.5 billion in 2018 [Skjuve and Brandtzaeg, 2019][¹²]. According to Sumas Wongsunopparat and Binmei Deng (2022)[¹⁴], the rapid growth in the size of live streaming users has brought huge traffic support for live shopping. As a result, the e-commerce live this new online shopping mode, through a more intuitive image of the way the goods are displayed, more targeted explanation of the goods, more timely interaction between merchants and consumers as well as consumers, etc., more effective to meet the consumer's shopping process of the purchase of the demand as well as the emotional needs of the consumers, began to become an important support for online consumption.

The beauty product industry is estimated at $40 billion globally as early as 2017[Zota and Shamasunder, 2017][²²]. With the emergence of e-commerce, more and more beauty products are being sold online. 2023 sales data from China's "Double Eleven"
online shopping festival show that beauty and skincare product sales amounted to 58.2 billion yuan, and perfume and make-up sales amounted to 20.4 billion yuan, for a total of 78.6 billion yuan for these two categories of products, which is ranked after household appliances, electronics and digital, and apparel products. (Xianning News, 2023)\cite{15}. Beauty products are experiential products, the feeling of use varies from person to person, and it's difficult for consumers to buy beauty products online and experience all the products before choosing the best ones to buy. Therefore, beauty brands began to integrate opinion leader marketing strategy and carry out beauty product marketing through e-commerce live broadcast. Famous French brands Chanel and Lancôme, Chinese brands Huaxizi and Mao Geping, and South Korean brands such as Hou have carried out live sales through platforms such as Jitterbug, Facebook, and Taobao.

2 Literature Review

2.1 Opinion leader theory and related research

2.1.1 Network opinion leaders

The term "Opinion Leader" was first proposed by communication scholar Lazarsfeld (opinion leader) in the 1940s in the book "People's Choice". Lazarsfeld believes that in the process of information dissemination, there are two levels of dissemination, mass communication is not directly to the general audience, but through the "Opinion Leaders" as an intermediary, and then conveyed by them to the general audience, and its pattern is as follows: mass communication - opinion leaders - general audience. The pattern is as follows: mass communication--opinion leaders--general audience. With the development of Internet technology, the network has profoundly influenced people's lives, and scholars have expanded the research on opinion leaders from traditional fields to the Internet field. Samson (2010)\cite{10} pointed out that opinion leaders with higher confidence are more willing to become word-of-mouth communicators, which can enhance consumers' purchase intention through positive word-of-mouth communication. Liu Zhen (2018)\cite{7} introduced the variable of consumers' perceived value from the perspective of personal characteristics of online opinion leaders, while using consumers' perceived value and trust as dual mediators, and proposed a conceptual model of opinion leaders' influence. He argued that the Professionalism, reputation, interactivity and homogeneity of online opinion leaders would bring a great influence on consumers' perceived value and consumers' trust, while consumers' perceived value and trust as mediating variables showed a significant positive correlation effect on the effect of purchase intention.

2.1.2 Anchor opinion leaders in live e-commerce broadcasting.

In the era of digital consumption, people connect with each other through the Internet and live broadcasting platforms and pay attention to their favorite anchors on live broadcasting platforms, and e-commerce anchors, a key opinion leader, have a significant impact on consumers' purchasing decisions. A number of scholars have studied
opinion leaders and analyzed anchors as opinion leaders in live e-commerce. Zhou Jisheng (2022)\cite{21} argues that network anchors use webcasting as a channel for information dissemination, they use computers, cell phones and other mobile terminals with the help of the Internet, to implement the implementation of the push related to the consultation; real-time live broadcasting of events through the webcasting platform, and consumers interact with the content of the live broadcasts through online commenting or real-time pop-ups, with the characteristics of the opinion leader. In live shopping, the perceived professionalism, perceived reputation, perceived interactivity and perceived product involvement of the network anchor opinion leader are inseparably linked to the shopping intention of the online shopping crowd. Based on the SOR model, Zhao Dawei (2021)\cite{20}, Huangfeifei et al., (2023)\cite{5}, and Yan Z et al., (2023)\cite{16} studied the relationship between anchor characteristics and purchase intention possessed by e-commerce anchors as key opinion leaders in terms of their perceived professionalism, perceived interactivity, and charisma. He Honglin (2024)\cite{4} analyzed the influence of e-commerce anchors' characteristics and social proximity on the purchase intention of agricultural products by using the SOR model, and concluded that e-commerce anchors possessed the characteristics of perceived professionalism, perceived interactivity and perceived attractiveness. Summarizing the above scholars' research, this study concludes that anchor opinion leaders have four characteristics: perceived professionalism, perceived reputation, perceived interactivity (Huang, C et al., 2023)\cite{6} and perceived product involvement.

2.2 Purchase intention

Scholars have done a lot of research on the definition of purchase intention. Mullet, G. M., & Karson, M. J. (1985)\cite{8} believe that consumers' attitudes towards a product or brand, together with the role of external factors, constitute consumers' purchase intention, which can be regarded as the subjective tendency of consumers to choose a particular product and has been proved to be an important indicator of predicting consumer behavior. Dodds, W. B., Monroe, K. B., & Grewal, D. (1991)\cite{2} argued that purchase intention refers to the subjective probability Yang X et al., (2023)\cite{17} believe that likelihood that a consumer will purchase a particular product. Younus S., Rasheed, F., & Zia, A. (2015)\cite{19} argued that purchase intention refers to the consumer's preference for purchasing a product or service. In this study, purchase intention is defined as the level of probability that a consumer is willing to take a particular purchase behavior.

2.3 The influence of anchors on purchase intention

The relationship between anchors on consumer purchase intention can be traced back to the relationship between opinion leaders and purchase intention. Before e-commerce live streaming has been developed, many scholars have studied the influence of opinion leaders on consumer purchase decisions. Sandra Tobon, Jesus Garcia-Madariaga (2021)\cite{11} and Muangmee (2021)\cite{9} clarified through an online experiment that opinion leaders through social networks (Facebook) Product reviews posted by opinion leaders have an impact on purchase decisions, positive messages posted by opinion leaders
have a greater impact on the decision to purchase a product than not purchasing a product, and at the same time, opinion leaders are able to inhibit consumers' purchasing behavior when their reviews are negative. An Jing, Zheng Rong and Zeng Xinyong (2015)\textsuperscript{[1]} took female consumers as the research object and constructed a multiple regression model from the five dimensions of network opinion leader's perceived professionalism, perceived product involvement, perceived reputation, perceived profitability, and perceived interactivity to conduct an empirical study on the network opinion leader's influence on female consumers' purchasing behavior. The study shows that the perceived professionalism, perceived product involvement, perceived reputation, perceived profitability, and perceived interactivity of online opinion leaders significantly and positively affect the purchase behavior of female consumers. Gu Yuwei (2020)\textsuperscript{[3]} argued that anchors' appearance attractiveness, perceived credibility, perceived professionalism, and perceived interactivity ultimately influence consumers' purchase decisions by affecting individual consumers' values. Liu Zhen (2018)\textsuperscript{[7]}, Yi, Y et al., (2022)\textsuperscript{[18]} investigated the effects of anchors' perceived professionalism, perceived reputation, perceived interactivity and perceived homogeneity on purchase intention through a study using trust as a mediating variable, and found that there is a significant positive correlation between the two, and the more consumers trust online opinion leaders, the more likely they are to be influenced by their recommended information, and then generate purchase intention. Zhou Jisheng (2022)\textsuperscript{[21]}, Wang, H et al., (2022)\textsuperscript{[13]} studied the relationship between network opinion leaders and consumers' online purchase intention under the e-commerce live streaming marketing model using perceived value and perceived risk as mediator variables, and found that there is a positive correlation between the perceived professionalism, perceived reputation, perceived interactivity, and perceived product involvement of network opinion leaders and consumers' perceived value and purchase intention.

This study applies the opinion leader theory and refers to the model constructed by Zhou Jisheng (2022)\textsuperscript{[21]} on the personal characteristics of opinion leaders in e-commerce live-streaming situations affecting consumers' purchase intention, and constructs the research framework, as shown in Fig. 1:

![Fig. 1. Research Framework](image-url)
3 Research Methodology

3.1 The population and the sample

According to the data of the "Prospective Industry Research Institute" in the "Analysis of the current market situation and development trend of China's beauty industry in 2019", there are more than 300 million Tmall beauty consumers. In order to ensure the scientific and rigorous nature of the study, this paper mainly carries out a random sample survey of Chinese consumers who have had the experience of purchasing beauty products on e-commerce live broadcasts by distributing questionnaires online. The questionnaire was distributed through online channels, and the main target was Chinese consumers who have experienced e-commerce live purchasing of beauty products. Due to a sample size of 300 million people, which is a large number and a wide range, this study was conducted with sample size of 400.

3.2 Research Instruments

In this study, we designed the model measurement scale of opinion leaders' purchasing intention of beauty consumers. After designing, the questionnaire is mainly divided into three parts: (1) Some descriptions about the questionnaire, the basic description of the sender and the main purpose of sending the questionnaire. (2) Basic information about the respondents, including the gender of the respondents, monthly consumption, geographical area, and the purchase of beauty products. (3) About the scale of this thesis, in order to the accuracy and reliability of the questionnaire, the more mature scales collected were screened and designed in conjunction with this study. The scales mainly contain two: one is the anchor characteristics scale, which contains four independent variables: perceived professionalism, perceived reputation, perceived interactivity and perceived product involvement; the other is the purchase intention scale. The items of each variable in the questionnaire are measured using a five-point Likert scale, from 1 to 5, indicating the degree of "strongly disagree" to "strongly agree" respectively.

3.3 Reliability analysis

Before using the questionnaire on the sample group, it was tested (piloted) on 30 test subjects with similar characteristics to the sample group to be studied. From Table 1 questionnaire Cronbach's alpha, it can be seen that the Cronbach's alpha for all coefficients is 0.831.Cronbach's alpha for perceived professionalism is 0.864,Cronbach's alpha for perceived reputation is 0.969, Cronbach's alpha for perceived interactivity is 0.849, Cronbach's alpha for perceived Product involvement is 0.742, Cronbach's alpha for beauty products purchase intention is 0.828.The reliability values of all the factors and the total factor of the questionnaire are more than 0.6, so it can be concluded that the questionnaire can be used to collect the real data and its reliability value meets the acceptance criteria.
Table 1. Questionnaire Cronbach's α

<table>
<thead>
<tr>
<th>Variable Items</th>
<th>Sample size</th>
<th>N of Items</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived Professionalism</td>
<td>30</td>
<td>4</td>
<td>0.864</td>
</tr>
<tr>
<td>2. Perceived Reputation</td>
<td>30</td>
<td>4</td>
<td>0.969</td>
</tr>
<tr>
<td>3. Perceived Interactivity</td>
<td>30</td>
<td>4</td>
<td>0.849</td>
</tr>
<tr>
<td>4. Perceived Product Involvement</td>
<td>30</td>
<td>4</td>
<td>0.742</td>
</tr>
<tr>
<td>Beauty Products Purchase Intention</td>
<td>30</td>
<td>4</td>
<td>0.828</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>24</td>
<td>0.831</td>
</tr>
</tbody>
</table>

4 Results

4.1 Related analysis

The researchers used the simple Pearson's correlation coefficient to test the relationship between 5 quantitative variables. From Table 2, The correlation coefficient between Beauty Product Purchase Intention (PD) and Perceived Professionalism (P), Perceived Reputation (R), Perceived Interactivity (I), Perceived Product Involvement (PI) is 0.517, 0.567, 0.603 and 0.567, indicating positive correlation.

Table 2. Pearson correlation

<table>
<thead>
<tr>
<th>variable</th>
<th>P</th>
<th>R</th>
<th>I</th>
<th>PI</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Professionalism(P)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Reputation(R)</td>
<td>.491**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Interactivity(I)</td>
<td>.520**</td>
<td>.510**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Product Involvement(PI)</td>
<td>.506**</td>
<td>.444**</td>
<td>.520**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Beauty Product Purchase Intention(PD)</td>
<td>.517**</td>
<td>.567**</td>
<td>.603**</td>
<td>.560**</td>
<td>1</td>
</tr>
</tbody>
</table>

4.2 Regression analysis

From Table 3, R=0.717a, R²=0.514, Adjusted R²=0.509, it means the Perceived Professionalism(P), Perceived Reputation(R), Perceived Interactivity(I) and Perceived Product Involvement(PI) can be explained the reasons for the 51.4% change in Beauty Product Purchase Intention(PD). It was found that Perceived Professionalism(P) with Sig = 0.006, Perceived Reputation(R), Perceived Interactivity(I) and Perceived Product Involvement(PI) with Sig = 0.000b. It is seen that the Sig value is less than 0.05 which is statistically significant:

The estimated coefficient for the Perceived Professionalism(P) value is 0.138 (t = 2.744, Sig = 0.006 < 0.05), indicating that Perceived Professionalism(P) has a relatively significant positive effect on Beauty Product Purchase Intention(PD);

The estimated coefficient for the Perceived Reputation(R) value is 0.275 (t = 5.885, Sig = 0.000 < 0.05), indicating that Perceived Reputation(R) has a significant positive effect on Beauty Product Purchase Intention(PD);
The estimated coefficient for the Perceived Interactivity(I) value is 0.311 (t = 6.283, Sig = 0.000 < 0.05), indicating that Perceived Interactivity(I) has a significant positive effect on Beauty Product Purchase Intention(PD);

The estimated coefficient for the Perceived Product Involvement(PI) value is 0.249 (t = 5.355, Sig = 0.000 < 0.05), indicating that Perceived Product Involvement(PI) has a significant positive effect on Beauty Product Purchase Intention(PD);

<table>
<thead>
<tr>
<th>Anchor characteristics</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.002</td>
<td>0.184</td>
<td>-0.009</td>
<td>0.993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Professionalism(P)</td>
<td>0.138</td>
<td>0.050</td>
<td>0.123</td>
<td>2.744</td>
<td>0.006</td>
<td>0.612</td>
<td>1.633</td>
</tr>
<tr>
<td>Perceived Reputation(R)</td>
<td>0.275</td>
<td>0.047</td>
<td>0.256</td>
<td>5.885</td>
<td>0.000</td>
<td>0.653</td>
<td>1.532</td>
</tr>
<tr>
<td>Perceived Interactivity(I)</td>
<td>0.311</td>
<td>0.049</td>
<td>0.287</td>
<td>6.283</td>
<td>0.000</td>
<td>0.592</td>
<td>1.690</td>
</tr>
<tr>
<td>Perceived Product Involvement(PI)</td>
<td>0.249</td>
<td>0.047</td>
<td>0.235</td>
<td>5.355</td>
<td>0.000</td>
<td>0.637</td>
<td>1.570</td>
</tr>
<tr>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td>0.717*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td></td>
<td></td>
<td>0.514</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td></td>
<td></td>
<td>0.509</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5 Conclusion

Taking live e-commerce streaming as the main context, this paper investigates the influence of anchors on consumers' beauty products purchase intention. By conducting a questionnaire survey and data analysis, the following conclusions were drawn:

The research data shows that the regression coefficients of perceived professionalism, perceived reputation, perceived interactivity and perceived product involvement are 0.138, 0.275, 0.311, 0.249, respectively, and the model of the influence of anchors on the beauty products purchase intention is constructed, with the model formula of PD=−0.002+P*0.138+R*0.275+I*0.311+PI*0.249. According to the research data it can be seen that VIF<5, the model does not have the problem of multicollinearity and the model is well structured.

The research data showed that the regression coefficient of perceived interactivity (I) was 0.311, which was the highest among the four independent variables, and thus had the most significant effect on beauty products purchase intention (PD). It is followed by perceived reputation (R) and perceived product involvement (PI), and the least influential is perceived professionalism (P), with an unstandardized coefficient B value of 0.185. The results of the study show that all four characteristics of anchors
positively influence the beauty products purchase intention in e-commerce live streaming, and the degree of strength of the influence is from strong to weak, namely, perceived interactivity (I), perceived reputation (R), perceived product involvement (PI), and perceived professionalism (P), respectively. This result has a certain reference value for beauty enterprises in recruiting and cultivating anchors. Currently, many beauty companies sell through live streaming, and anchors as important participants in live streaming sales, are the ones who have the closest contact with consumers in front of the camera; therefore, utilizing the results of this study can provide better suggestions for beauty companies from the perspective of recruiting and cultivating anchors.

References


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