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The Influence of Picture Information on Consumers' Purchase Decision

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Abstract. The emergence of shared economic platform has promoted the vigorous development of the Bed and Breakfast. However, many room owners through this platform disclosing information to attract consumers marketing means is far from mature. This paper discusses the data collected from piglets' short-term rent room and analyzes the influence of three characteristics of pictures on consumers' purchasing decisions by content analysis. It is found that image color has the greatest influence on customer choice, followed by image shape and image orientation. It is suggested room owners attach importance to the role of picture features on consumers, and display room information effectively to stimulate consumers' willingness to buy and promote consumer decision.

1. Introduction

With the development of the Internet and electronic platforms, the impact of the sharing economy has spread to various fields, especially in the field of tourism accommodation. As a derivative of the sharing economy, the homestay is also receiving increasing attention from tourists. The Internet not only makes traditional tourist accommodation providers closer to tourism consumers, but also allows ordinary people and even tourists who have idle housing resources to join the ranks of travel service providers through electronic platforms, which greatly promotes the development of the hotel. The owner (landlord) reveals the room information on an electronic platform through which consumers search and make purchasing decisions. To put it simply, the electronic trading platform connects the buyer and the seller, the supply side on the one hand, and the demand side on the other, and the organization that provides information and transaction services in the middle. So, under this online platform, what are the factors that influence consumers to decide to buy goods? Park D. H (2009) and Yin Hong (2013) believe that through the commodity details, trust, evaluation system, third-party certification and other mechanisms to design purchase decisions that can affect online consumption [9] In the case that the seller's credibility, evaluation system, and third-party certification are the same, it is more important that the product information is truthfully disclosed. In the information dissemination of the network platform, the picture is a very important carrier for conveying information compared with the text. Due to the abstraction of the text, people are much more sensitive to the image than the text. People tend to believe more in the information displayed in the picture. As a visual language, graphics are more direct expression and eliminate communication barriers caused by words [11].

Nowadays, many homestay owners will pass the pictures to pass the information about the facilities and location of the room. However, the landlord often lacks scientific knowledge and experience in

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the selection and use of pictures. It lacks proper understanding of the information dissemination of product pictures and the receiving and processing mechanism of customer information, resulting in inefficient use of images and even negative effects. In order to find out some misunderstandings used by the home suppliers in the process of information disclosure, and also to improve the information disclosure platform of the home suppliers, this paper analyzes the property information of the hotel based on the image information of the B&B disclosed by the piglet short-term rent. The influence of the purchase choice, and explore how the landlord takes pictures and effectively display the characteristics of the pictures, thus stimulating consumers' willingness to purchase to promote consumption decisions.

2. Literature research and hypothesis

2.1. Picture information and consumer purchase decision

Because of the space-time separation characteristics of online transactions, it is difficult for consumers to feel the true quality of goods before trading on the platform, so consumers are more willing to make decisions based on some picture information. Ryan M, Ogilvie M (2011), Lin YR (2015), according to the clue utilization model, regard picture information as one of the external clues, which has a significant impact on consumers' decision-making behavior; holbrook m b, moore d (1981) When studying the product presentation, it was found that when studying the product display, picture presentation can increase consumers' cues and judgments and bring better results than language presentation. Underwood&Klein (2002), Madzharov&Block (2010).

In the research of product packaging, it is proved that the picture information of products can affect the purchase and use of consumers. Whether the picture information is complete and rich also affects the consumer's purchase decision. Li (2002) it is found that high information richness or interaction can improve the online buying experience of users, reduce the information asymmetry between buyers and sellers, and increase the purchase rate. Zhao Jia (2012) think that if the seller can describe the product specification in detail and accurately, consumers will be more likely to judge the seller's reputation and ability, thus forming purchase intention or behavior. Ding Lili, Tang Hui and Wang Lei (2017) found that the abundance of picture information under different markings had different effects on customer satisfaction. Among them, the picture richness evaluation method and merchant credit degree, the protection service and sales promotion under service mark had a significant positive effect on consumer satisfaction. Dong Qiang (2014) [two] analyzed the impact on consumers' purchase intention from the integrity of picture information and the source of pictures. Sammartino J, PalmerSE (2012) in the study of picture aesthetics, it is pointed out that image information such as color, size and position of a picture has a significant impact on consumer decision making; location and other picture information have a significant impact on consumer decision making; Zhang Yao (2017) further combines QBIC research technology to find out the color characteristics of pictures. Shape characteristics, texture features and information entropy will affect donor's donation behavior.

However, most of the researches on pictures are focused on the research of behavioral impact. In addition, the application of image information in the field of online services is also lacking. Consumers can buy physical products through online transactions, but services are intangible and experienced goods whose quality can not be verified before being consumed. Especially in tourism services, consumers attach more importance to interaction and experience with tourist destinations. Accommodation services, as one of the six elements of tourism services, have a great impact on tourists' tourism experience. Eyal Ert, Aliza Fleischer (2016) through the study of tourism online accommodation platform, we find that landlord image information has a significant impact on tourists' choice of lodging, and consumers can deduce the credibility of landlord from the landlord's photos, thus affecting the choice of consumers. However, there are few researches on the picture information of homestay. In addition to theoretical problems, in reality, landlords do not attach importance to image information and lack of technology, or choose or beautify pictures at random, resulting in distortion. It is difficult to provide their own picture information from the perspective of consumers.

Therefore, it is necessary to put forward new picture factors to explore the effect of these factors on consumers' purchase decisions. This study combined with QBIC technology, from the color characteristics, texture features and shape features of the three characteristics of the image, specifically analyzes the impact on consumers' purchase decisions.

2.2. Characteristics of picture information

Peracchio, L.A (2004) and Meyeres-levy, J. (2005) think that the characteristics of pictures can be understood as different forms of information, that is, the information needed to be processed through the complex combination of visualized schemata. Zhong Rumin (2014) the information characteristics of pictures are summarized as the way of displaying objects and pictures made in pictures. Influencing factors, such as shooting angle, depth of field, etc. Different images give consumers different information. Even with the same image content, when different information characteristics are used, different styles and emotions can be conveyed, thus affecting consumers' perception. In 1993, the IBM research laboratory proposed Query by Image Content, which is a technical analysis tool for images. It is a content based image retrieval (Content-based retrieval), which provides color features (Color features) and texture features (Texture Texture). Image indexing method of shape feature (Shape features). Therefore, this study combined with the QBIC technology, from the three characteristics of the color characteristics, texture characteristics and shape features of the pictures to analyze the impact of the consumer purchase decisions on home stay, and put forward the assumption that the image information features make decisions on consumer purchase decisions.

2.2.1. Color. With the development of online e-commerce, the choice and application of picture color has great influence on consumers' aesthetic and shopping experience. Joshi D, Datta R, Fedorovskaya E (2011) the better picture of aesthetic experience generally has the characteristics of attracting attention, having interesting elements, and being able to use color and emotion very well.

Color is not only related to human vision, but also to people's emotions and behaviors. Color emotion theory believes that people often associate colors with emotions according to their own perception. Singh (2006) mainly divides the color of the picture into warm colors (red, orange, yellow) and cool colors (green, blue, purple), and neutral tones (grey, white). Different tones bring different emotions to people. SchlossK B, Palmer S E (2011) People think that people are more likely to accept warm colors than cold tones and neutral tones. People subconsciously associate warm colors with positive emotions. Color behavior theory holds that different colors have different effects on people's behavior. MoehlerD, Conroy-Krutz J, it is found that color can even affect electoral behavior. Male voters are more willing to pay attention to candidates printed on green balloons, while female voters are most willing to vote for job candidates in pink balloons.

Therefore, on the basis of the above discussions, the following hypotheses are put forward in this paper.

H1: image color has a significant impact on consumer decision-making behavior. Warm colors play a positive role in consumer decision making.

2.2.2. Texture. The roughness of a picture refers to a certain visual factor with stable characteristics in a given area. It appears in different forms of deformation and direction. Because the home booking online platform is mostly home map, the texture element in this area changes little, so this article does not use roughness to explain the texture of the picture. Contrast refers to the degree of brightness between the brightest white and darkest black in the picture. The bigger the contrast, the brighter the color, the higher the clarity. There is a format definition requirement for the picture of the online booking platform of the homestay. Based on this, we do not choose the factor of contrast. Directionality is to describe whether the picture has an oblique direction. In photography, it is shown in the direction of photography and the direction of view. Yang (2010) and others have found that even with the same photo, the different directions of the photos bring different feelings. When presenting products in the perspective of hyperopia, the consumers who started the responsibility

themselves (duty and obligation) had higher evaluations of the products than the consumers who started the ideal self (out of hopes and aspirations), whereas when using the angle of the beat, the opposite situation occurred. Therefore, this paper chooses directivity to explain the image texture line.

Therefore, on the basis of the above discussions, the following hypotheses are put forward in this paper.

H2: image directivity has a significant impact on consumer decision making behavior. Specifically, the perspective of hyperopia plays a positive role in consumer decision making.

2.2.3. Shape. Image shape refers to the combination of shape feature area 35 based on heuristics. Linsen, Leyssen S, Gardner M H R, (2010) people think that the objects in the picture have a prescribed size and size, and find that people prefer objects in pictures to more people's cognitive size. The size of objects displayed in images is particularly important, and the size of objects has also become an important area of image research. In the picture, the size of the object is directly related to the capacity of the picture information. Distance effect holds that distance generation and distance will bring different psychological feelings. Fujita K, Henderson M D, Eng J (2006), it is considered that the more distant objects in the space need more people to associate with the direct judgement of objects near space. Hsee C K, Tu Y, LuZ Y (2014)] [found] people feel more negative about the proximity stimulus, and have a sense of expectancy for distant stimuli. According to the visual cognition of "near far and small", in the picture, "big" is "near" and "small" is far away. That is to say, the distance stimulus is larger in the picture, and the size of the far stimulus in the picture is smaller. In the picture, the smaller the size of the object is, the more it will be, and the greater the amount of information. The lower the perceived risk and the stronger the purchase will be, the easier it is to make consumer decisions.

In the online booking platform of homestay, the objects in residential photos are usually furniture facilities. Based on the above discussion, the following assumptions are made:

H3: image shape characteristics have a significant impact on consumer decision making, specifically showing that the number of furniture facilities in the picture has a significant impact on consumer behavior.

3. Research Design

3.1. Sample Selection

Professional network platform is one of the main channels for residential sales. Photo and other information release make tourists relatively simple when choosing, and effectively increase the information of online short stay. As the largest third party short term rental platform in the shared economy, piglet short rent follows the idea of "living liberalism". By the end of 2018, the global housing market had exceeded 350 thousand, covering 395 cities and 225 overseas destinations. So this is mainly to get pictures and information of sleeping quarters from the piglet platform.

3.2. *Data processing method*

Analysis of basic characteristics of homestay pictures based on shared economic platform. * randomly selected 10 photos of sleeping quarters on a piglet platform every two days, and selected 50 photos of residential quarters as research samples. In the photos of 50 residential quarters, important information was collected, which was summed up as 3 items of color, direction and shape. By classifying and tagging, the 50 photos have 20 warm colors, 30 cool colors, 25 close ups, 25 Zhang Yuanjing, 23 home furnishings, and 27 facilities.

Based on the three factors that affect the choice of tourists and the number of pictures, we also set up a question in the content part of the picture, "read the following pictures, select the room you want to live in", and set up ten photos. So that the data can be analyzed afterwards. Comparing online and offline surveys, we chose online surveys. Due to the particularity of the research sample, online survey allows each order of photographs to be randomly generated at the time of each survey person's fill,

avoiding the mechanical selection of the line survey personnel, resulting in inaccurate data. After seven days of online survey, 150 valid data were obtained.

4. Research data analysis

4.1. Basic characteristics analysis

On the one hand, the list of rooms selected by each questionnaire in the 150 questionnaires is used, and the total attractiveness value of each room is selected by adding the number of times selected by each room (the charm value of the room photo). The size of the charm means that the popularity of the room also means that the size of the consumer's choice of the room is 24. On the other hand, in the ten selected photos, the basic characteristics of the photos are color, direction and shape.

4.1.1. Photo color analysis. Due to the X: the Y corresponding to the warm color variable: the value of the charm is too concentrated, so the average value is taken in the interval of 0.1-0.9. The average value of 0.1 intervals is 0.181372549, and the average value of 0.2 intervals is 0.218954248. You can get Figure 1, figure 2.

As you can see, there is a linear relationship between warm color and Charm Value: Y=0.3349x+0.15421. The more the number of warm colors in the photo, the greater the charm value. When the number of warm colors is 0.1, the charm value is the lowest. When the number of warm colors is 0.9, the attractive value tends to be the largest, and the growth is slow in the [0.8, 0.9] range. This shows that the warmer the room is, the more popular the tourists are. The room photos are likely to attract tourists if they are colder. In color science, warm colors often give people warm and friendly feelings, while cold colors represent cold and distant feelings. This data also exactly reflects the requirement of tourists for "home", "comfort" and "pleasure", and pays attention to the "home" atmosphere. "Family atmosphere" is one of the main factors that affect tourists' choice of home stay. Therefore, the more warm the picture is, the more likely the tourists will enjoy it.

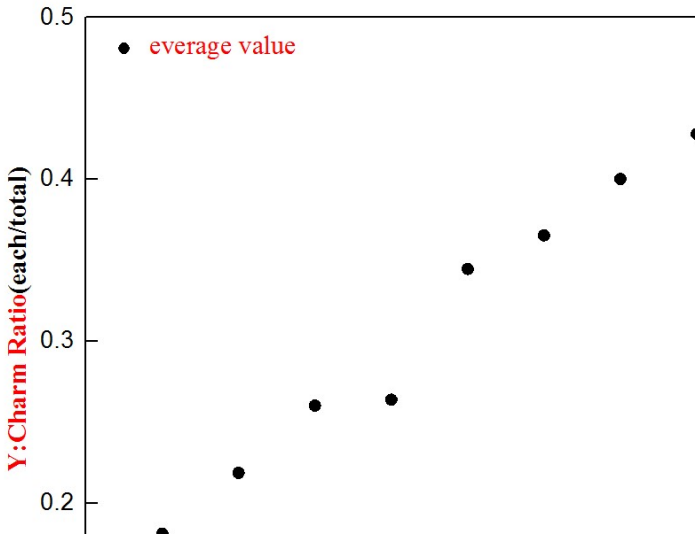


Figure 1. Scatter diagram of influence of warm tone on Charm Value.

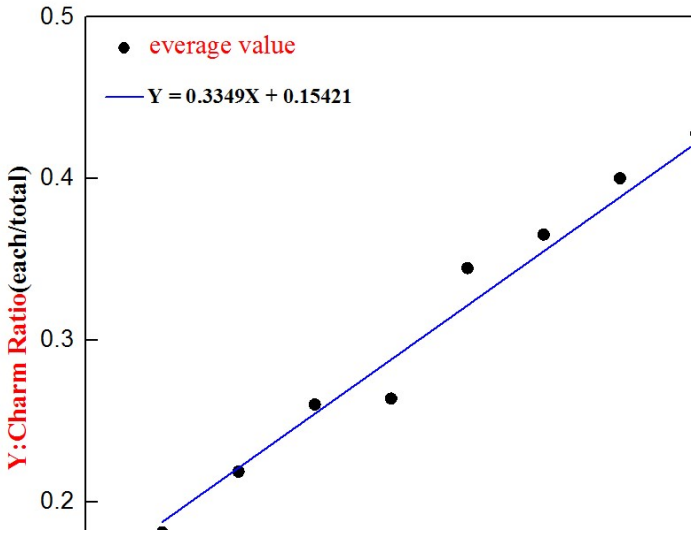


Figure 2. The linear equation of the influence of warm tones on attractive values.

4.1.2. Directional analysis of photographs. According to photos of homestay photos, photos usually use two directionality, hyperopia or myopia. As shown in Figure 3, figure 4 shows that there is a linear relationship between the prospect and the photo attractiveness: Y=0.2919x+0.1383. With the increase of the number of long-range photos, the charm of the photos is also increasing. At X=0.9, Y reaches the maximum value, and then there is a trend of falling back. When consumers choose to stay, the more prospective photos, the more likely they will be selected. This is because the vision can show the whole room to a certain extent. It has a general grasp of the overall situation of the room, and the consumer psychology is satisfied, and then the room will be selected.

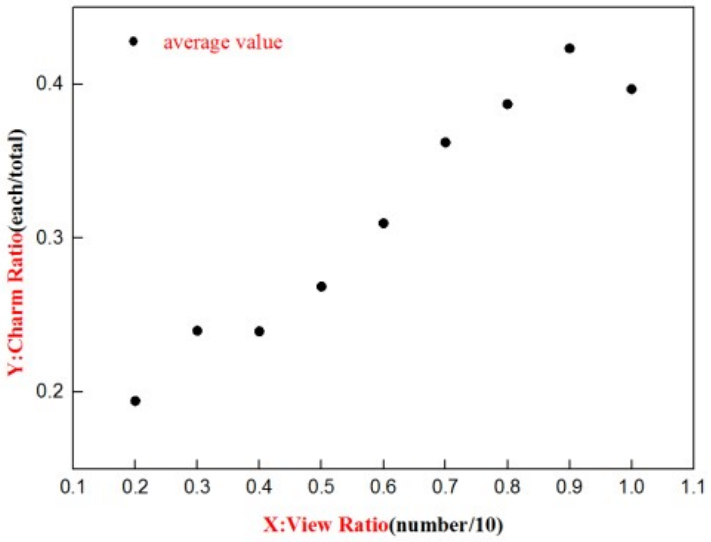


Figure 3. Scatter diagram of the influence of hyperopia on attractiveness.

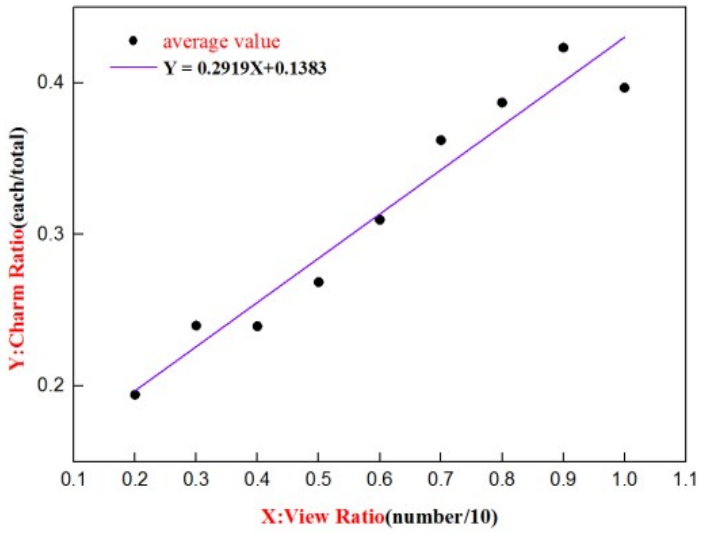


Figure 4. Linear equation for the influence of hyperopia on attractiveness.

4.1.3. Photo shape analysis. The size of objects is directly related to the capacity of picture information. The information capacity of photos in residential photos is directly reflected in the richness of photo furniture facilities. Through data collation and linear simulation, the relationship between facilities and charm value is obtained: Y=0.3759x+0.0538. That is to say, the richer photos of home furnishings, the more attractive the photos are. If consumers see more objects in photos, the more facilities they see in the photos, then the more likely they are to choose the room. Consumers tend to be "value for money" when they buy, especially when traveling. In a strange environment, people's discomfort will be magnified indefinitely, and in the condition of more complete facilities, tourists will feel comfortable and comfortable at home, thus increasing the satisfaction of consumers.

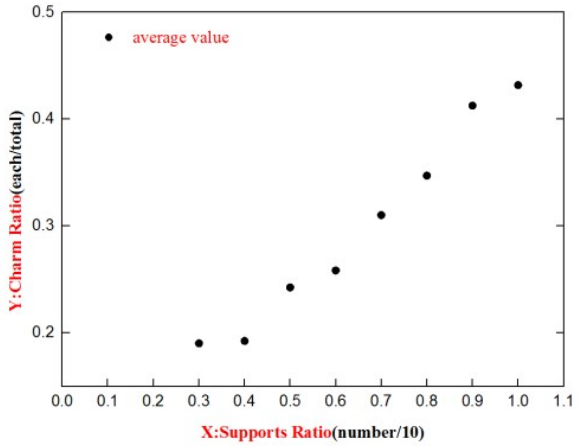


Figure 5. Scatter plot on the influence of shape on Charm Value.

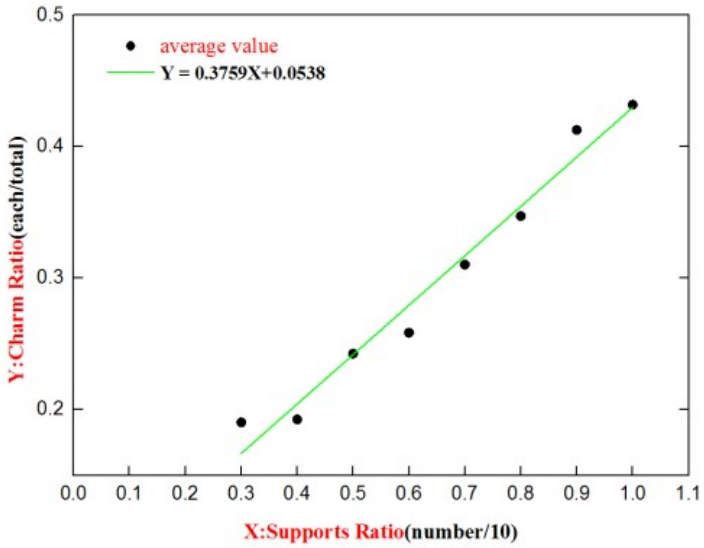


Figure 6. Linear equation of shape affecting Charm Value.

4.2. Analysis and suggestion

Compare the basic characteristics of the three pictures of color, direction and shape. As shown in Figure 7, we find that warm colors have the greatest impact on attractiveness, followed by facilities. This also shows that when consumers choose to stay in the location, the price is the same, the evaluation is basically 4.9-5 (excellent), and only rely on photos to choose, warm tone photos are more popular with consumers. The second is that when the facilities in the photos are more complete, consumers will be more likely to choose. Then, with the prospect of the picture, consumers can get a clearer picture of the overall state of the room and will be easily chosen.

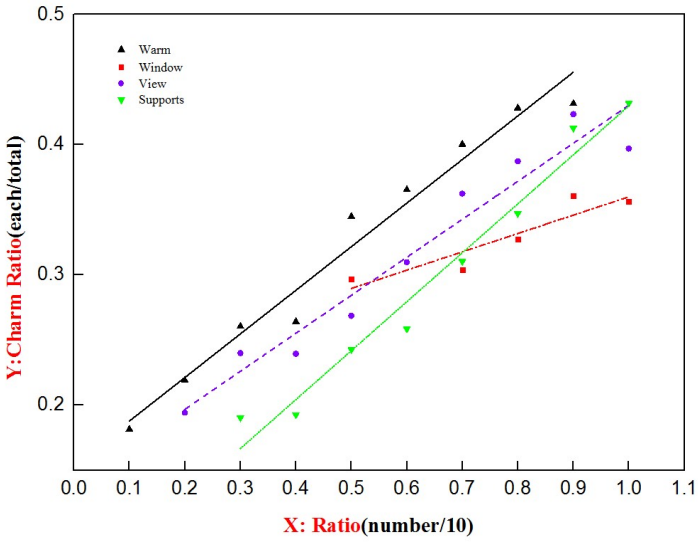


Figure 7. Linear equation of colour, view, shape affecting Charm Value.

5. Conclusion

Good homestay helps to create a good brand and image of the city, and adjust the role of tourist accommodation in the light season, and promote the sustainable development of urban tourism. How to rely on sharing the rapid development of home stay in the economy, making better use of network

information to enhance the attractiveness of consumers, and achieving a win-win situation between landlords and consumers is the research center of this paper. According to the signal theory, the image is used as a "signal" to evaluate the function of the product, so the photo as a "signal" of the homestay can also enable consumers to assess the choice of the homestay. But in the actual investigation, we find that there are two kinds of photos in the homestay: 1. Room photographs that is, the object of this study, mainly to show the room; second, the landlord photo, that is, the landlord's personal information display. Telling a good story about home stay and showing the way of life is the soul of raising the experience of home stay. Apart from hotels, one of the greatest attractions is the master's story. It is necessary to further discuss whether the "premium effect" in economics can be reflected in the home stay and whether it will have a certain impact on consumer purchase decisions. In addition to photo visual information, another consumer decision that affects consumers is the product itself. For residential areas, convenient transportation location, moderate price and good evaluation are all important factors affecting consumers' decision-making. But this article is based on the factors of visual photographs, mainly discusses the impact of visual photos on consumers' purchase choices on the network platform, to a certain extent, excludes the hard characteristics of products, and how to combine the characteristics of residential products with picture information, this is the place for future research on residential development.

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