Research on the Influence of Internet Shopping Festival Atmosphere on Consumers' Shopping Value

Abstract—Effects of online shopping festival atmosphere for consumers shopping value of great significance for the development of the shopping festival and online shopping platform for business marketing strategy. Based on the SOR theory, this paper divides the online shopping festival atmosphere into external stimuli into four dimensions: economy, entertainment, individuality and visuality, and constructs a research model of the influence of online shopping festival atmosphere on consumers' shopping value. Data were collected through questionnaires, and statistical analysis and hypothesis testing were performed using SPSS and Smart PLS. The study found that the entertainment and visuality of the platform during the online shopping festival significantly affected consumers' arousal; Economic, entertaining and personalization significantly affect consumer preferences; Awakening significantly affects consumers' perception of pleasure while significantly affecting consumer enjoyment and social shopping value; Pleasure affects consumers' functionality, enjoyment and social shopping value.

Keywords—Online Shopping festival, Shopping festival atmosphere, Shopping value, SOR model

I. INTRODUCTION

The competitive environment in the online market is becoming more and more fierce. For the purpose of promoting the sale of goods, various e-commerce companies have bundled some special dates with large-scale online promotion activities to create online shopping festivals, such as Taobao’s “Double Eleven” and Jingdong. “618”, etc. The online shopping festival is good for companies to promote product promotion, publicity and build their own brands, But whether it can create shopping value for consumers is an important factor for enterprises to maintain competitive advantage. The value of shopping is the whole process of the consumer's shopping experience. Focusing on the object and content of the shopping experience, the consumer can experience a combination of various values from the shopping[1]. During the online shopping festival, various e-commerce platforms increase the entertainment of the platform through activities such as gold coins and red envelopes, Enhance the visual impact of the platform through platform functions and appearance optimization, provide high-quality and low-priced products through promotional activities, and create a pleasant and relaxed shopping festival atmosphere to attract consumers to shop. Consumers buy goods and services in the shopping festival atmosphere, their shopping experience, shopping value is different from ordinary shopping. However, at this stage, during the online shopping festival, the influence of the shopping festival atmosphere on the value of consumer shopping is less studied.

This paper takes the online shopping festival as the research situation, studies the characteristics of the online shopping festival atmosphere, and the impact on consumers' shopping value. Based on the SOR theory, it is believed that the online shopping festival atmosphere first stimulates consumers to generate emotional reactions, and then influences the consumers' shopping value, and constructs a research model of the impact of online shopping festival atmosphere on consumers' shopping value. Collecting data through questionnaires, analyzing and verifying the impact of online shopping festival atmosphere on consumer shopping value. The research results provide an in-depth analysis of the value of consumer shopping during the shopping festival, which is of great significance to the development and improvement of the marketing platform and the marketing strategy of the merchant during the shopping festival.

II. MODEL CONSTRUCTION AND RESEARCH HYPOTHESIS

SOR is the stimulus-organism-response model. The external environment acts as a stimulating factor, which triggers the recipient's conscious or unconscious emotional response and cognitive response, which leads to a certain degree of approaching
or evading behavior[3] Previous studies have confirmed that emotional responses that have a significant impact on consumer behavior are divided into arousal and pleasure[4]. Based on the SOR theory, this paper studies the dimension of the online shopping festival atmosphere and the influence of shopping festival atmosphere on consumer sentiment and shopping value. This paper constructs the impact model of online shopping festival atmosphere on consumer shopping value, as shown in figure1. It is believed that the online shopping festival atmosphere is divided into the following four dimensions as external stimuli, stimulating consumers to generate wakefulness and pleasant emotional reactions, which in turn affects shopping value.

![Figure 1. The influence model of online shopping festival atmosphere on consumer shopping value.](image)

A. Hypothesis of emotional response to the atmosphere of online shopping festival

Economics refers to the realism of the prices of goods and services provided by online shopping platforms, and the economic perceived benefits of consumers such as price discounts, promotions and other preferential activities[5]. The consumer's perceived profit is relative to the price or expected price of the previous commodity as a reference point. When the commodity price is lower than the reference price, the perceived profit is generated, and the consumer's desire to purchase is enhanced[5]. Moreover, consumers have an economic orientation in the perception of commodity attributes, the stronger the perceived profit, the stronger the customer's emotional response [2]. During the online shopping festival, the shopping platform will adopt various sales strategies to promote sales, such as price discounts, time-limited purchases, coupons, spikes, full reductions, etc. These will increase the economics of the online shopping platform, to stimulate consumers to generate exciting, happy emotional reactions. Therefore, the research hypothesis is proposed:

H1: The economy during the online shopping festival has a significant positive impact on consumer awakening.

H2: The economy during the online shopping festival has a significant positive impact on consumer sentiment.

Entertainment refers to the online shopping platform as a communication medium, which can provide consumers with a variety of entertainment experiences through video, audio, animation and other content with shopping and entertainment functions, in order to increase the enjoyment value of the consumer shopping process [6], making consumers easy to entertain while shopping. During the online shopping festival, the shopping platform provides a lot of interesting shopping festival entertainment activities, such as “grabbing red envelopes”, “making gold coins”, “paying lottery awards”, etc., while giving consumers discounts, increasing the entertainment experience of consumers. Entertainment performance increases the individual's pleasure and concentration[7], which gives consumers positive and pleasing emotions, prompting consumers to enhance enjoyment value through entertainment perception. Therefore, the research hypothesis is proposed:

H3: The entertainment during the online shopping festival has a significant positive impact on consumer awakening.

H4: The entertainment during the online shopping festival has a significant positive impact on consumer pleasure.

Visuality refers to the extent to which the external form presented by online shopping platform attracts consumers, it enhances the visual effect of the platform through the display of visual elements [8]. Visual elements mainly refer to color, video, text and typesetting, which make the shopping platform more attractive to users[9]. Adelaar believes that visuality can significantly affect consumer sentiment perception[10]. During the online shopping festival, the shopping platform changed the main color of the interface, making the platform interface dazzling, with flash animation, editing video and other multimedia highlighting platforms and product visual effects. Good visuality will cause consumers to pay attention, generate positive emotional reactions, and thus increase the value of consumers' shopping. Therefore, propose research hypotheses:

H5: The visuality during the online shopping festival has a significant positive impact on consumer awakening mood.

H6: The visuality during the online shopping festival significantly positively affects consumer pleasure.

Personalized mainly in online shopping platform based on each consumer's preferences and behavior, to understand the specific needs of every consumer, it provides efficient, valuable, targeted services [11]. Daily shopping platform will be based
on consumer browse, search, purchase, comments, favorites, and other related operations, data mining, forecasting and analysis
of consumer demand for goods and services, and provide personalized recommendations of products and services. Personalized
shopping platform to help consumers find the goods they are interested in improving the customer shopping experience,
customer satisfaction and loyalty, have a positive emotional response [12]. When shopping festival during online shopping
platform to provide products and services to meet consumer demand for personalized, consumers will wake up and produce a
pleasant mood. Therefore, the research hypothesis is proposed:

H7: Personalization during the online shopping festival significantly positively affects consumer awakening.

H8: Personalization during the online shopping festival significantly positively affects consumer sentiment.

B. Hypothesis of emotion and shopping value

Emotion is the individual all current temporary stimulus, strong emotional reactions and behavior interpretation[13].
Mehrabian divided emotions into three dimensions of pleasure, awakening and domination, and confirmed that environmental
stimuli can trigger individual emotional reactions, and thus promote tendencies or evasive behaviors[3] In consumer behavior,
pleasure and awakening are the main reactions of consumers to external environmental stimuli[4][17]. Pleasure refers to the
degree of happiness and satisfaction that the recipient feels in an externally stimulating situation; Awakening refers to the
degree of excitement, excitement, and excitement experienced by the recipient in an external stimulus situation [3]. Rafaeli's
research suggests that a high degree of vitality arousal has a positive effect on pleasure perception[14]. Therefore, awakening
and pleasure are closely linked, that is, the higher the awakening mood of the consumer, the stronger the pleasure will be.
Therefore, the research hypothesis is proposed:

H9: Consumers' wake-up mood significantly positively affects pleasure.

The value of shopping runs through the whole process of the consumer shopping experience, with the object and content
of the shopping experience as the core, so that consumers can experience various subjective perceptual values [1]. Shopping value
system divided into functional shopping value, hedonic shopping value shopping and social value [9], with its interactive
shopping environment or consumer shopping atmosphere as the feature [1]. Shopping atmosphere will affect the consumer's
emotional response, contact the shopping atmosphere of emotional response will affect the value perception [1], thus affecting
consumers shopping value [2]. Studies have shown that positive emotional reactions can stimulate consumers' shopping
enthusiasm, which positively affects the enjoyment of shopping value; it can also improve task efficiency, promote task
completion, and positively influence functional shopping value [15]; positive emotions enables consumers to construct social
network relationships in the shopping experience, enhance self-image satisfaction, and positively influence social shopping
value [16]. During the online shopping festival, merchants use various environmental incentives and marketing methods to
attract consumers to promote consumers to arouse emotions and pleasures through personalized services, price promotions,
optimized interfaces, and entertainment interactions, to promote consumers to achieve shopping value. The stronger the
consumer's arousal and pleasure perception, the more positively they will affect the value of shopping. Therefore, the research
hypothesis is proposed:

H10: The wake-up mood during the online shopping festival significantly positively affects the consumer's functional
shopping value.

H11: Awakening mood during the online shopping festival significantly positively affects the value of consumer hedonic
shopping.

H12: The awakening mood during the online shopping festival significantly positively affects the value of consumer social
shopping.

H13: Pleasant mood during the online shopping festival significantly positively affects the value of consumer functional
shopping.

H14: Pleasant mood during the online shopping festival significantly positively affects the value of consumer hedonic
shopping.

H15: Pleasant mood during the online shopping festival significantly positively affects the value of consumer social
shopping.

III. RESEARCH DESIGN AND EMPIRICAL ANALYSIS

A. Questionnaire design and variable measure

This paper mainly uses questionnaires to collect data. Online shopping festival atmosphere features, measure emotional
reactions and shopping items worth a total of nine latent variables. The measurement design of the latent variable mainly refers
to the research results of the predecessors. There are at least 3 measures for each latent variable in the volume, and each
measure uses the Likert 5-level scale. The designed questionnaire was revised several times after preliminary investigation to
form the final questionnaire.
B. Data collection and statistical analysis

The questionnaire were distributed and collected through questionnaires Star Software, and asked respondents based on shopping online shopping platform used during the festival as a reference to fill in a questionnaire. The questionnaire was distributed online and offline. A total of 350 questionnaires were distributed, delete invalid ones remaining 298 parts, 85.1% efficiency questionnaires. The results of statistical analysis of data are shown in Table 1.

<table>
<thead>
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<th>Option</th>
<th>Range of options</th>
<th>Frequency</th>
<th>Percentage (100%)</th>
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<th>Range of options</th>
<th>Frequency</th>
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<td>25-35</td>
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<td>11.74</td>
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<td>shopping sessions in</td>
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C. Reliability and validity test

In this paper, data processing and statistical analysis using SPSS software, path analysis and hypothesis testing by Smart PLS software. Measuring the overall reliability of the questionnaire and the reliability of each latent variable by Cronbach’s α value. The overall reliability of the questionnaire is Cronbach’s α=0.943, indicating that the overall reliability of the questionnaire is high. KMO=0.891, indicating suitable for factor analysis. According to the reliability and validity test, the Cronbach’s α values of each latent variable are greater than 0.7, indicating that the reliability of each latent variable is higher. The combined reliability (CR) is greater than 0.7, indicating that the internal consistency of each measurement item is better. Validity test mainly through two ways, polymerization validity and discriminant validity. The measured AVE is greater than 0.5, indicating that the study has good polymerization validity. Discriminant validity is measured by comparing the square root of each factor AVE with the correlation coefficient between variables. The square root of the measured AVE value is greater than the correlation coefficient between variables, indicating that the sample has good discriminant validity.

D. Hypothetical test

This paper builds a structural equation model through Smartpls for path analysis and hypothesis testing. Use PLS Algorithm to verify the path relationship between variables. Calculate the level of significance between variables by Boot Strapping. R² mainly reflects the degree of interpretation of explanatory variables by explanatory variables. Path analysis results, significance level and R² are shown in figure 2.

* represents the significant level of 0.05; **represents the significant level of 0.01; ***represents the significant level of 0.001; ns represents not significant

Figure 2. Study model path coefficients and their significance levels.
IV. Research Results and Discussion

A. The influence of the atmosphere of online shopping festival

In order to study the influence of the atmosphere of online shopping festival on the value of consumer shopping, this paper builds a research model based on SOR theory. The empirical analysis results are shown in Figure 3. Assuming H1, H6, H7, and H10 are not supported, other assumptions are supported. The entertainment and visuality of the online shopping festival atmosphere have a significant impact on arousing emotions; Economics, entertainment, and personalization significantly affect pleasure, and visual impact on pleasure is not significant.

1) Economics significantly affects consumer sentiment, but the effect on arousal emotions is not significant. The results of the study show that the promotion activities of various platforms during the online shopping festival can make consumers have a happy and satisfying emotional response, but there is no direct emotional response to heartbeat, excitement, and stimulation. The main reason may be that as the frequency and frequency of online shopping festivals increase, consumers' attitude towards shopping festivals becomes more and more normal, and the promotion of shopping platforms is basically understood. Therefore, economic influence on awakening emotions is limited. However, various promotional activities during the shopping festival will cause consumers to generate perceived benefits. The acquisition of perceived benefits will enable consumers to generate happy and satisfied emotional reactions and further obtain shopping value. During the online shopping festival, the platform can adopt a variety of promotion methods, and under the premise of obtaining certain profits, let the consumers benefit and enhance the consumers' perception of the value of the shopping.

2) Entertainment significantly affects consumer awakening and pleasure. The results show that online shopping during the festival as a platform to attract consumers browsing experience, the increased variety of interesting animation, video entertainment, gaming platform, will significantly affect consumer perception of arousal and pleasure. And then make consumers shopping value in the shopping experience. Therefore, each shopping platform can combine its own characteristics, increase the entertainment experience while giving consumers discounts, and promote consumers to generate shopping value in the shopping experience.

3) Personalization significantly affects the consumer's pleasure, but it does not affect the awakening mood. The research results show that during the online shopping festival, the shopping platform recommends and provides personalized products and services to consumers, which can promote consumers to have happy and satisfied emotions. The personalized service provided by the shopping platform can effectively reduce the cost of consumer information screening, reduce the cost of cognition and shopping time, effectively improve the quality of consumer decision-making, and contribute to a better shopping experience, thereby stimulating consumers to generate shopping value. Therefore, during the online shopping festival, the shopping platform should focus on improving the value of consumer shopping, optimize the recommendation system algorithm, improve the accuracy of recommended products, provide personalized services, and meet the different needs of consumers.

4) Visuality significantly affects consumers' arousal, but the effect on pleasure is not significant. The research results show that during the online shopping festival, the visual impact effects of the store's store design, product image display, color conversion, etc. will stimulate consumers' arousal, but it does not directly cause consumers to have happy and satisfied emotions. Explain that the visuality of the shopping platform still needs to be further strengthened. The shopping platform should fully display the shopping festival atmosphere during the online shopping festival, bring consumers an unusual visual impact, increase the platform interface features, to attract consumers to generate positive emotional reactions, and then generate shopping value in a refreshing visual effect.

B. Emotional influence

1) Consumer awakening emotions positively affect the consumer's pleasure perception, as shown in Figure 2. Awakening has a significant positive impact on pleasure, which has been confirmed by predecessors [3]. The stronger the arousal, the more intense the perception of pleasure. At the same time, during the online shopping festival, the wake-up mood significantly affects the consumer's enjoyment and social shopping value. The more excited and stimulating the consumer is in the shopping process, the stronger the hedonic and social shopping value perceived in the shopping experience. Therefore, during the online shopping festival, the shopping platform should give full play to the multimedia functions of online shopping, show its entertainment and visuality, and stimulate consumers to achieve exciting and exciting shopping status. It allows consumers to experience unusual visual impacts while shopping, while making it easy to shop in entertainment, giving consumers a sense of enjoyment and social shopping.

2) Consumer pleasure has a significant impact on functionality, hedonism and social shopping value, as shown in Figure 2. Pleasant sentiment plays a significant role in the intermediation of economics, entertainment and personalization and functionality, hedonism and social shopping value. Consumers are happy during the shopping process, and the more satisfied they are, the more functional, hedonic and social shopping value they feel in their shopping experience. Therefore, during the online shopping festival, the shopping platform should adopt a variety of marketing strategies, and strengthen the degree of personalized product recommendation and service, saving the time and economic cost of consumer shopping. Make consumers happy shopping in entertainment, so that consumers get functional, enjoyable and social shopping value in the shopping experience.
V. CONCLUSION AND RESEARCH OUTLOOK

Although most of the research hypotheses have been validated, there are still some limitations in the research: (1) The data collected by the experiment has certain limitations. Most of the samples involved in the survey were mainly young and middle-aged. Although a large number of studies have shown that middle and young people are the main force in participating in the online shopping festival, many elderly people have gradually joined the ranks of online shopping because most of the goods during the shopping festival are more favorable than the physical stores. Therefore, in future research, the differences in the value of shopping during the online shopping festival, such as gender and age, can be further studied. (2) This paper mainly selects the four most significant factors during the online shopping festival, which has certain limitations. The shopping atmosphere during the online shopping festival is multi-faceted. In future research, factors such as product availability, informationality, interactivity, and platform knowledge can be introduced.

ACKNOWLEDGMENTS

This paper is supported by the Changchun City Philosophical and Social Science Planning Project "Research on the Measurement of Public Happiness and Its Influencing Factors in Changchun City" (No.: CSKT2018ZX-010) And Jilin University of Finance and Economics Doctoral Fund Project “Research on User Privacy Information Disclosure Behavior and Protection Mechanism in Online Medical Health Service” (No.: 2018B15).

REFERENCES