

## Retraction

# Retracted: Marketing Model of Tourism Enterprises Based on New Media Environment

### International Journal of Antennas and Propagation

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

### References

- [1] L. Wang, X. Wang, M. Song, and T. Niu, "Marketing Model of Tourism Enterprises Based on New Media Environment," *International Journal of Antennas and Propagation*, vol. 2022, Article ID 5273167, 13 pages, 2022.

## Research Article

# Marketing Model of Tourism Enterprises Based on New Media Environment

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New media is a scientific and technological product under the background of the new era, and now new media technology has been widely used in all aspects of social development, and it has spawned the arrival of the new media era. In the new media environment, the survival and development environment faced by enterprises have undergone earth-shaking changes; if you still follow the traditional marketing methods, it will not only reduce the effectiveness of marketing but also because of the deviation from the development requirements of the times be eliminated, bringing threats to the survival and development of enterprises. The development of new media, represented by the Internet and mobile phones, has brought great changes to various industries in the world including tourism. The market size of the travel network is expanding, and online sales are soaring. At the same time, all kinds of tourism organizations often have blind optimism in the construction of tourism networks and lack of reasonable application means, so that tourism network marketing is far from exerting its potential in reality; on the one hand, it cannot provide transaction services that satisfy both supply and demand; on the other hand, it also affects the economic benefits of tourism organizations. Compared with the rapid development of the tourism media industry, the theoretical research related to the actual situation lags significantly. Although the number of related studies at home and abroad is increasing, most of them stay at the level of explanation and introduction, and the analysis of the tourism industry chain is not enough. The breadth and depth of the study are sorely lacking. The future letter needs to summarize the successes and failures of the development of the tourism media industry from a theoretical height and carry out theoretical improvement to guide practice, and it also needs to strengthen forward-looking research, summarize the laws and models, and put forward practical implementation plans to improve the overall development level of the tourism and media industry. Aiming at the problem of new media marketing strategy in shopping tourism scenic spots, this paper applies descriptive research, questionnaire survey, statistical processing, mathematical model, and other research methods to analyze the characteristics of new media such as prominence of personalization, increased audience selectivity, and diversified forms of expression presented by new media compared with traditional media, as well as the differences between the two in terms of communication status, dominant state, and audience state. 4I Marketing theory is applied to new media marketing, the changes in the marketing environment and marketing needs under the background of new media, and the extensive impact of these changes on the marketing mix strategy; the basic strategies and expected effects of new media marketing of tourism enterprises are studied from the aspects of product, price, channel, and promotion; the IPA model is constructed, and the empirical analysis of the shopping tourist attractions of Changshu Garment City in China is carried out. Through the research of this paper, in theory, the understanding of new media marketing is enriched, and in fact, it provides guidance for optimizing the new media marketing strategy of tourist attractions.

## 1. Introduction

New media is the use of digital technology, through wireless communication networks, satellites, and other channels, as well as computers, mobile phones, digital televisions, and other terminals, to provide information and services to users of the form of communication, and the types are mainly divided into electronic magazines, videos, and micro blogs [1]. New media is different from traditional old media, with real-time, large capacity, and interactivity. In the era of large-scale application of new media, tourism should be good at using new media, adopt appropriate marketing channels for different consumer groups, and actively innovate marketing strategies. With the advent of the new media era, the traditional marketing model has been unable to keep up with the speed of enterprise product reform and innovation and can not reflect the advantages in marketing promotion, which requires adapting to the new environment, introducing new media-centered marketing innovation strategies, using a variety of new media technology methods to do a good job in professional marketing publicity, as well as the use of online and offline combination of methods to improve the comprehensive efficiency of enterprises, improving the comprehensive quality of marketing. However, at present, there are fewer tourism enterprises using new media, most of them are in their infancy, and how to use new media to broaden marketing channels is the key issue for the development of tourism enterprises at present [2].

Tourism is a sunrise industry with strong comprehensiveness and strong industrial relevance, which can effectively promote the development of related industries. Based on a global perspective, tourism has gradually developed into a tertiary industry, playing an important role in the regional economy and national economy. From 1945 to 2016, the annual growth rate of foreign tourists exceeded 8%, far exceeding the growth rate of world GDP, and the overall global tourism revenue reached 896 billion US dollars in 2016, an increase of 450 times compared with 1945. According to relevant data, at this growth rate, by 2020, the number of global tourists will reach 1.62 billion, and the overall revenue of tourism will reach 990 billion US dollars. It is precisely because of such rapid development, huge economic benefits, and green environmental protection that various countries have begun to pay attention to the development of tourism, have concentrated various advantageous resources to vigorously develop tourism, and implemented the strategy of going out to compete for global tourism resources and tourism market share [3].

In the theoretical research, this paper is mainly to improve and supplement the marketing theory and strategy of shopping tourist attractions. In China, most of the tourism marketing theories are based on the concept of scenic spot image design, marketing themes, and cultural innovation, or through the combination of the above three aspects to study tourism marketing strategies and combination marketing methods. However, due to the rapid development of the Internet, the era of new media has quietly arrived, more and more marketing opportunities have begun to appear, and the traditional tourism marketing model has not been able to

fully adapt to the development of the market economy and people's growing demand for diversification of the tourism market. Therefore, based on the tourism marketing of the new media era, it is necessary to conduct all-round and multifaceted analysis, strengthen innovation on the basis of previous research, and then build a new marketing system for tourist attractions in combination with the specific actual situation of the country. On the basis of the analysis of traditional marketing theory, this paper proposes the theory of new media marketing and analyzes the impact and effect of its marketing in shopping tourist attractions, so that it can realize the continuous optimization of marketing resources and guide the direction of marketing; at the same time, the tourism marketing theory under the new media has been further enriched and then combined with the current popular APP marketing model, such as Weibo marketing, WeChat marketing, to incorporate them all into the topic. The purpose is to study the theories that are relatively vacant in the current tourism marketing, so as to achieve the purpose of throwing bricks and stones and better serving tourism and marketing [4].

From the perspective of tourist attractions, through a series of empirical studies, this research scientifically analyzes the actual effect and actual impact of new media marketing strategies in specific tourist attractions, so as to promote tourism organizations or tourism enterprises to better implement their own marketing strategies as shown in Figure 1. Taking Changshu Clothing City as a case, based on new media marketing, through the practical application of specific marketing strategies, according to the actual marketing effect, the new media marketing strategy for shopping tourism scenic spots is scientifically and reasonably proposed. It is expected that, in the future marketing activities, with the help of new media, the social resources can be continuously optimized, the effective linkage between regions can be realized, and the marketing effect that cannot be achieved by traditional marketing methods can be achieved.

## 2. State of the Art

*2.1. The Conceptual Connotation of New Media and New Media Marketing.* In 1967, P. Goldmark pioneered the concept of "new media." The "new" of new media is relative, and new media is both a concept of time and a concept of development. At this stage, new media is a media with innovative forms based on digital information technology and characterized by interactive communication compared with traditional media such as newspapers and periodicals, radio, and television. Ohrens et al. summarized the emerging media groups as online media, mobile media, interactive TV media, building TV, car mobile TV, outdoor new media, etc. [5]. The new media in a large number of studies is "fourth media" and "fifth media," that is, online media and mobile media. In essence, new media marketing is the way, means, and process of marketing organizations to use information technology and new media characteristics to carry out marketing activities in order to achieve overall marketing goals. Compared with traditional media marketing, new media marketing pays more attention to experiential,

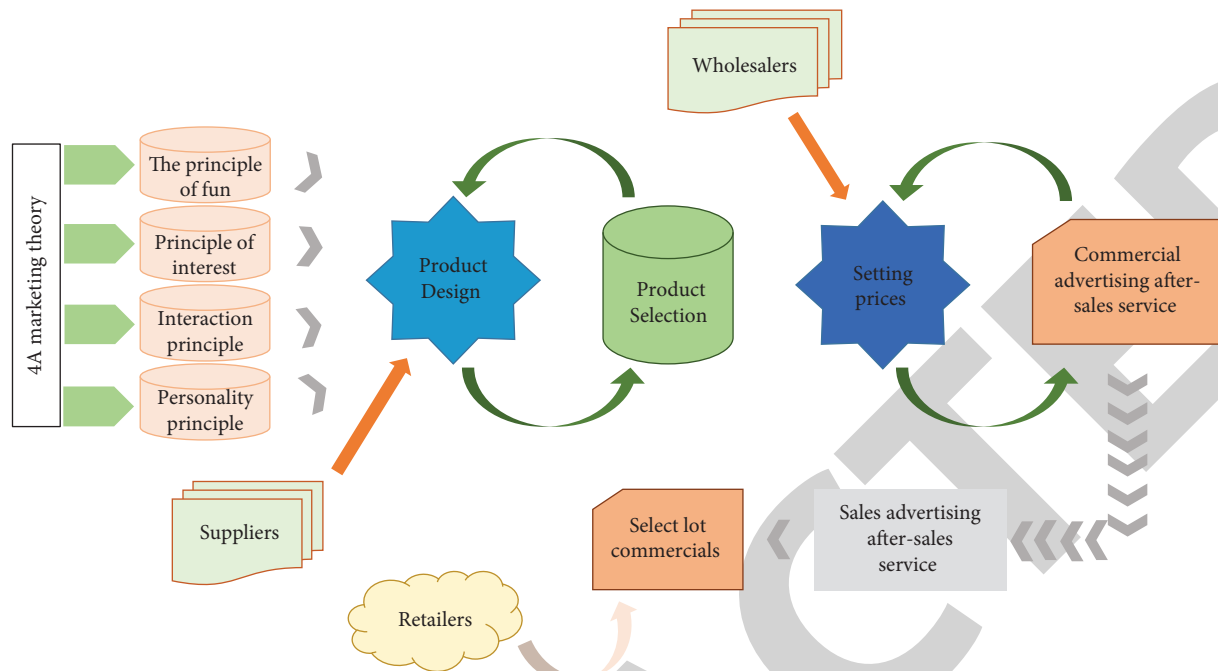


FIGURE 1: Marketing model of tourism enterprises based on 4A marketing theory.

communication, differentiation, and other aspects. New media are connected and differentiated from media forms such as digital media, self-media, social media, and online media. They are similar in terms of network and communication technology foundation, communication mode, etc., but digital media emphasizes binary forms, self-media focuses on individuals, social media focuses on sharing, and online media emphasizes platforms. It can be said that new media combines the advantages of digital media, self-media, social media, and online media.

**2.2. Tourism Website Marketing.** At the end of the 20th century, with the advent of the Internet, the tourism industry developed rapidly, and scholars began to study tourism websites and came up with some research results. For example, Li and Lu compared and analyzed Chinese and American tourism websites and then proposed a new “virtual distance measurement method” to predict the development mode of tourism websites [6]. Bertan established an intelligent evaluation index system and used fuzzy cluster analysis methods to evaluate 10 tourism websites in Shijiazhuang [7]. There are also scholars who study a certain branch of the tourism website, and the author searches for relevant literature and finds that the research on the tourism website of the scholars focuses on the official website of destination tourism and the website of scenic spots. Some scholars evaluated the official websites of 31 provincial and municipal tourism in China: Gao took marketing strategy, information services, transaction processing, technical support, and website operation as first-level indicators to evaluate the marketing functions of official tourism websites, while Koehn et al. proceeded from the perspective of tourist demand, according to information, interaction, transaction,

and customs. The evaluation system of 44 secondary indicators has been constructed at four levels and technical support [8, 9]. Szromek and Naramski collected the tourist evaluation of Guangxi tourism official website from four aspects, that is, information provision, information interaction, transaction realization, and relationship maintenance, and put forward the idea of building Guangxi tourism official website [10]. Regarding scenic spot websites, Buckley and Cooper compared 34 5A-level scenic sites from five interactive function modules and found that most of the interactive functions of the websites still need to be improved [11].

**2.3. The Relationship between Tourism Marketing and New Media.** With the application and development of new media technology, the academic community is still in the early stages of research on the relationship between tourism marketing and new media, and the foreign research time is not very long. Brown is mainly based on the analysis of travel websites in various countries in Europe and the United States, so as to summarize the current situation of online marketing in each link, which can also provide material for subsequent research. In addition, based on the interdisciplinary perspective, scholars have also conducted analysis, directly combining communication science with e-commerce to form a new research model [12]. Bowen, based on the Egyptian scope, conducted a study on the impact of information systems as a dependent variable on the tourism industry, and the results show that the use of market information systems can help tourism enterprises improve the quality of their services [13]. Ashaari analyzed the tourism marketing service model based on web2.0 when analyzing tourism enterprises. Singh took small- and medium-sized

tourism accommodation companies as the object of analysis and analyzed the impact of online distribution channels, and after a large number of studies, only the use of network marketing can occupy a certain advantage in the competition [14].

Regardless of the industry, marketing can help it gain stronger market competitiveness, and of course, the tourism industry is no exception. Therefore, relevant scholars began to study the marketing capabilities of tourism enterprises. Domestic new media marketing for tourism enterprises is mainly biased towards the analysis of necessity and importance, but it is lacking comprehensiveness. Diaz work is mainly a research on the brand marketing strategies of tourism enterprises. Diaz mainly analyze Weibo marketing and put forward a strategic position in marketing [15]. Millo and Kumar provides a new idea for the marketing of tourism enterprises, that is, from the perspective of planning tourism products, catering to personalized consumer demand, so as to customize tourism products in a targeted manner [16]. Chiang and Henry proposed that the new media spread fast, the scope of dissemination is wide, the user group shows a youthful trend, and it gradually changed the use habits and choices of Internet users, becoming a publicity platform favored by many enterprises [17]. Lee and Lee proposed that, in recent years, tourism enterprises have expanded their market share by using Weibo marketing, which has brought huge economic benefits to tourism enterprises [18]. Gonz 'lez Itziar and Carmen analyzed the advantages and limitations of tourism new media marketing and proposed the basic strategies to deal with it, starting from the credibility of new media use, the interactivity of participants, and the abandonment of traditional media marketing functions, to move new media marketing in the tourism market from the only way to the road of efficiency [19]. Xu Ding et al. based on the "4Rs" marketing theory, conduct research on the WeChat marketing strategy of heritage tourism and put forward suggestions on the use of WeChat marketing in the relevant Imperial Tomb Scenic Spots in Guanzhong [20].

### 3. Methodology

*3.1. The Impact of New Media on Marketing.* Tourism marketing strategies in the new era should consider relying on modern scientific and technological means to achieve online and offline joint marketing, integrated marketing of new media, and traditional media communication methods, learn from each other's strengths, give full play to the advantages of each platform, carry out efficient marketing activities, and can also adopt the combination of point and surface and mobile electronic products such as mobile phones and the marketing of fixed products such as computers and televisions, so that consumers can pay attention to marketing products and marketing activities at any time, whether indoor or outdoor, and promote the development of tourism.

New media is involved in tourism marketing, and tourism individuals can display their own tourism needs and express their tourism needs through the network, and this demand information can be obtained by suppliers in real time. The real needs of tourists promote suppliers to adjust

their product development and design direction in a timely manner. In the actual sales link, the traditional marketing method is mainly in the form of physical storefront marketing within the destination or in the exclusive location; in the marketing strategy of the new media environment, the traditional location marketing is virtualized, so that the virtual choice becomes the main body of the tourist's choice, and the tourism products that meet their own needs are obtained through the Internet, without being affected by regions, information, and products. Clear comparisons can be made through Tables 1 and 2.

From the background of marketing new media, the impact of new media on marketing in tourism industry marketing is elaborated in detail. In the Internet era, the gap between traditional media marketing strategies and new media marketing strategies is reflected in the whole process of marketing, and in the traditional marketing process, the roles between all suppliers, sales, and consumers are clearly positioned. However, in the new media environment, through the Internet, you can completely get rid of the original positioning and shackles between products, the marketing network in a broad sense has undergone major changes, and the changes between various roles are also intertwined, forming a borderless marketing network that is not affected by skin color, language, race, and country.

*3.2. Analysis of Tourism Marketing Demand in the New Media Environment.* The application and development of new media are becoming more and more diversified, and the marketing objects of various enterprises have also undergone tremendous changes. Even so, there are inherent characteristics in the marketing model and object of tourism enterprises. With the influence of new media technology, the most prominent performance of the marketing objects of tourism enterprises is that the grouping of marketing objects has gradually changed into the individualized development of the group, and the previous group marketing model has gradually changed into individual characteristic marketing. For example, in new media, the marketing carrier becomes a mobile APP, and the object also becomes a user of the mobile terminal and an Internet user. In the environment of new media, its audience can be the target of tourism enterprise marketing, and tourism enterprises can use one-to-one marketing model to develop customers, maintain customers, and achieve convenient, one-stop communication services. Therefore, in the Internet environment, the coverage area is increasing day by day, and the number of users is increasing.

Tourists have certain differences in tourism requirements and hobbies, so tourism enterprises can formulate corresponding tourism routes according to the tourist data provided by new media, stimulate tourists' interest in tourism, and ensure that tourists devote themselves to tourism with full emotions. In addition, tourists can plan tourism routes according to the tourism strategies provided by new media and local cultural customs, improve tourism pertinence, and enhance tourism experience.

In the first half of 2017, smartphones achieved almost complete coverage, and the efficiency increased effect of smartphone-based network penetration was significantly reduced, showing a state of slow growth. The Ministry of Industry and Information Technology released relevant data showing that, in 2013, the scale of netizens using mobile phones in China exceeded the scale of traditional netizens on the PC side for the first time. In 2014 and 2015, China's smart terminal shipments were 256 million and 298 million units, respectively, in 2016, China's smart phone shipments were 356 million units, and in the first quarter of 2017, 120 million smart phones were sold, an increase of 1.98% in the same period. From the perspective of growth trend, the market share tends to be saturated, showing a slow growth rate trend. By the end of 2017, the scale of mobile phone netizens in China reached 727 million, an increase of 2 percentage points over 2016. The widespread use of smart phones in the future with the need to grow the speed of netizens through mobile phones is almost impossible, and the future that will be in a long period of time will mainly rely on innovative mobile APP applications to meet the needs of customers, to meet the Internet demand of non-mobile phone netizens to drive growth.

According to the China National Tourism Administration, the overall tourism revenue in 2017 was 4,090 billion yuan, and the tourism penetration rate completed through the network was 11.7%. According to relevant experts, the penetration rate of the network will reach about 13% in 2018, as shown in Figure 2. With the increase in the penetration rate of intelligent terminal devices and the increase in the number of users, the marketing strategy of traditional tourism marketers has shifted from offline to online development, and various tourism companies have also invested in the specific tourism market in the cost of capital and labor costs, so that the growth rate of the online market is much higher than the growth rate of overall revenue.

*3.3. Research on New Media Marketing Strategies of Tourism Enterprises.* There are differences in the demand for products from people at the same consumption level, and the corresponding product strategies are also different, and targeted product strategies should be formulated to cope with market demand with obvious characteristics. This article is fully analyzed and integrated according to the collected literature, and the marketing characteristics of tourism enterprise products are fully compared, as shown in Table 3, and they are divided according to six different dimensions.

It can be understood from Table 3 that, for the above types of products, products with a high degree of digitalization can generally be sold directly to consumers in the network, while products and services with a low degree of digitalization can not often be sold through the Internet platform and can only be promoted simply by means of on-site promotional activities. For similar products, highly sensitive products tend to attract more consumers' attention, while highly rational products can usually be favored and supported by consumers faster. Products with a high degree

of standardization: most consumers will not choose to inspect the goods opposite; that is to say, products or services with high standardization, high rationality, digitizability, and high sensitivity are more likely to meet the standards of Internet marketing.

Through the analysis in Table 3, it can be understood that traffic reservation is a kind of product that can be digitized and has high rationality and high sensitivity, which can be sold on the network platform, and from the perspective of market segmentation, the traffic reservation target market is generally broader and is easily favored by most consumers. However, some other tourism products have differences, although they are all highly perceptual attributes, but because of their low rationality and low degree of standardization, the feasibility of selling on the network platform is not very high, and the target consumers are usually scattered in the vicinity of the tourism enterprise. Based on this, tourism enterprises are to promote the mining of new media sales channels and traditional media compared with the very large advantages, but because of the further increase in online sales of traffic booking, but also to a certain extent, it has also transformed the traditional agency advantages they have and also relatively compressed the survival and development space of tourism enterprises, so that, in the current information age, the living environment of tourism enterprises has become more competitive. For tourism enterprises, in the new situation of new media, in the face of these new problems and challenges, we must persist in changing the past product marketing method from the root causes and accelerate the formulation of a more scientific product and service marketing strategy.

*3.4. Marketing Channel Strategy Analysis.* For the tourism industry, its industrial chain is very closely linked, and the marketing method of traditional tourism enterprises' products is generally distribution. Distributors hold a wealth of channel resources, which leads to tourism enterprises, and consumers can not really achieve direct communication, during which they are often separated by distributors; consumers put forward opinions, and feedback can not be very complete and rapid transmission to tourism enterprises; consumers can not have with tourism enterprises face-to-face communication. With the help of information transmission between distributors, there is also a phenomenon of secondary transmission, which has a large error between them, because distributors will inevitably consider their own profits and usually do not let consumers communicate directly with tourism companies. Under the new media marketing channels, tourism enterprises can rely on the Internet to achieve direct communication with consumers, further simplifying the marketing channels of tourism products, and according to the specific form of new media applications, its marketing channels can be divided as follows, generally including several types in Figure 3.

The most prominent feature of new media such as Weibo and WeChat is their interactivity and communication. Therefore, the tourism marketing strategy in the new era should also make full use of new media for interactive and

TABLE 1: Traditional marketing process of tourism enterprises.

Role division	Marketing process							
	Design a product	Select a product	Set the price	Select a lot	Information services	Commercial advertisements	Sales advertisements	After-sales service
Tourism supplier	✓		✓		✓	✓	✓	✓
Tourism wholesaler			✓				✓	
Tourism retailers		✓		✓	✓		✓	✓
Tourists		✓						

TABLE 2: New media marketing process of tourism enterprises.

Role division	Marketing process							
	Design a product	Select a product	Set the price	Select a lot	Information services	Commercial advertisements	Sales advertisements	After-sales service
Tourism supplier	✓		✓		✓	✓	✓	✓
Tourism wholesaler				✓	✓	✓	✓	✓
Tourism retailers					✓	✓	✓	
Tourists	✓	✓						

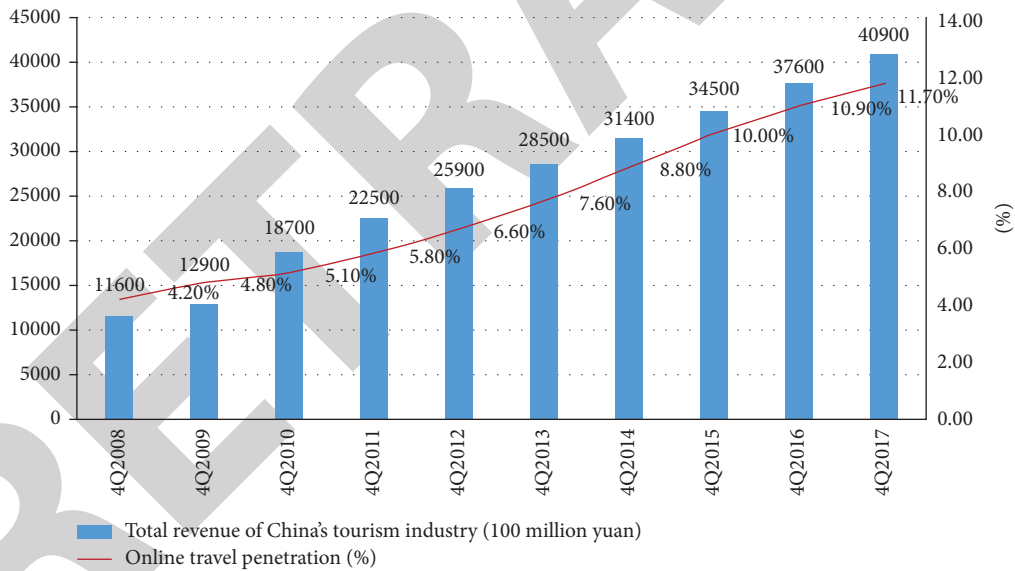


FIGURE 2: Total tourism revenue and online travel penetration rate in China from 2008 to 2017.

communicative marketing, so as to attract tourism targets to pay attention to marketing content and promote them to enter the marketing places. Figure 4 shows the number of active users of Weibo in the past three years. By December 2017, the number of domestic Weibo users had exceeded 400 million, an increase of 88 million compared with 2016, and the usage rate of netizens reached 40.2%, which was a large increase compared with the end of 2016. Among them, the mobile microblogging client users are about 300 million people, an increase of more than 8 million compared with 2016. After sustained high-speed growth from 2012 to 2017, Weibo has also become increasingly mature and began to

show a momentum of centralized development, and some operators have also begun to slowly adjust their Weibo business. From the actual situation at this stage, the number of domestic Weibo users is increasing geometrically, and the information content in the Weibo platform is further deepening. First of all, the Weibo platform can provide more and more functions, and it began to transform into an individual, institutional, or media release platform and also gradually support other applications and software; secondly, from the Weibo platform information content, on the basis of pan-content and popular content, it began to produce more vertical and refined information, for users at different

TABLE 3: Comparison of marketing characteristics of tourism products.

Product name	Digitizable	Consumer psychological motivation	Degree of standardization	Technology content	Geographical coverage	The difficulty of new media marketing
Traffic reservation	True	High rationality and high sensitivity	High	High	Wide	Easy
Hotel	True	High rationality and high sensitivity	High	Not necessarily	Wide	Easy
Tourist route	True	Low rationality and high sensitivity	Low	Low	Narrow	Difficulty
Scenic spot ticket	True	Low rationality and high sensitivity	Low	Not necessarily	Not necessarily	Difficulty
Performance ticket	True	Low rationality and high sensitivity	Low	Not necessarily	Not necessarily	Not necessarily

levels that can meet their information needs; third, standing at the user level, Weibo platform users gradually “sink.” From the newly established first- and second-tier city users as the core, it has begun to expand to fourth- and fifth-tier cities and the vast rural areas; finally, from the perspective of value application, the information content in Weibo is becoming more and more abundant, and it has made a lot of contributions in public opinion guidance, behavior prediction, and network marketing.

3.5. *Establishment of Artificial Neural Network Model for Marketing Mix Strategy.* Marketing combination means that, in the selected target market, after comprehensively considering the market environment, enterprise capability, market competition, and other conditions, the enterprise makes the best combination and application of the factors that can be controlled by the enterprise itself, in order to accomplish the purpose and task of the enterprise. Its essence is to give full play to the relative advantages of the enterprise and achieve “marketable market” in many ways to meet the overall needs of consumers, so as to improve the enterprise benefit and social benefit. This paper applies the artificial neural network to the determination of the marketing combination strategy of the enterprise and tries to provide the basis for the optimization of the marketing combination strategy of the enterprise by analyzing the various factors of the market and simulating the changes of the market.

Artificial neural network (ANN) is a widely parallel interconnected network composed of adaptive simple units (neurons). Its organization can simulate the interaction of biological nervous system to real-world objects. The basic model is shown in Figure 5.

Artificial neural network (ANN) has attracted the attention of scholars in many fields because of its self-learning, self-organization, good fault tolerance, and excellent non-linear approximation ability. There are many kinds of models, but the most perfect and widely used model in theory is the error backpropagation (BP) model. In practical applications, 80% to 90% of the artificial neural network models adopt error backpropagation algorithms or their varying forms of network models (referred to as BP

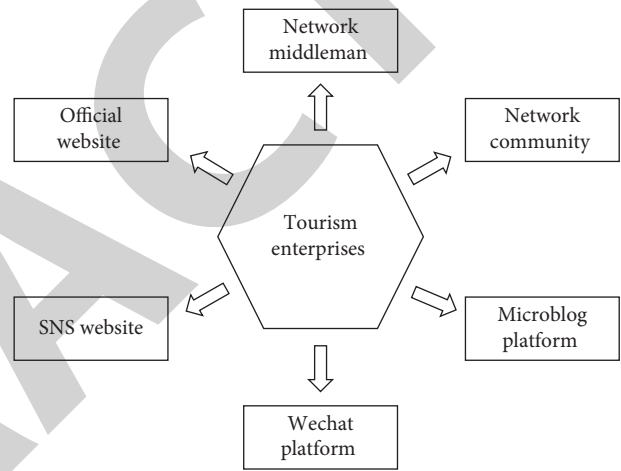


FIGURE 3: New media marketing channels of tourism enterprises.

networks). The model designed in this paper is also based on BP neural network. The typical BP artificial neural network model is a multilayer network structurally, which is divided into input layer, hidden layer, and output layer. Each layer contains several neurons, and each layer is fully connected. The output of the units in the front layer can not be fed back to the previous layer, and there is no connection between the units in the same layer, as shown in Figure 6.

BP neural network: output algorithm:

The output algorithm of each layer of neurons is

$$\delta(x) = \frac{1}{1 + e^{-\partial x}} \quad (\partial > 0),$$

$$\delta(x) = \sum_{i=1}^n w_{ij} t_i, \tag{1}$$

where  $w_{ij}$  is the node weight from the input layer (or hidden layer) to the hidden layer (or output layer);  $n$  is the number of node input values, in this case from the input layer to the hidden layer  $n = 10$ . Weight correction  $w_{ij}$ : the theoretical initial value can be a random number on  $[-1, 1]$ , but if the weight does not meet the requirements, it must be corrected. From the output layer to the middle layer, the calculation formula is



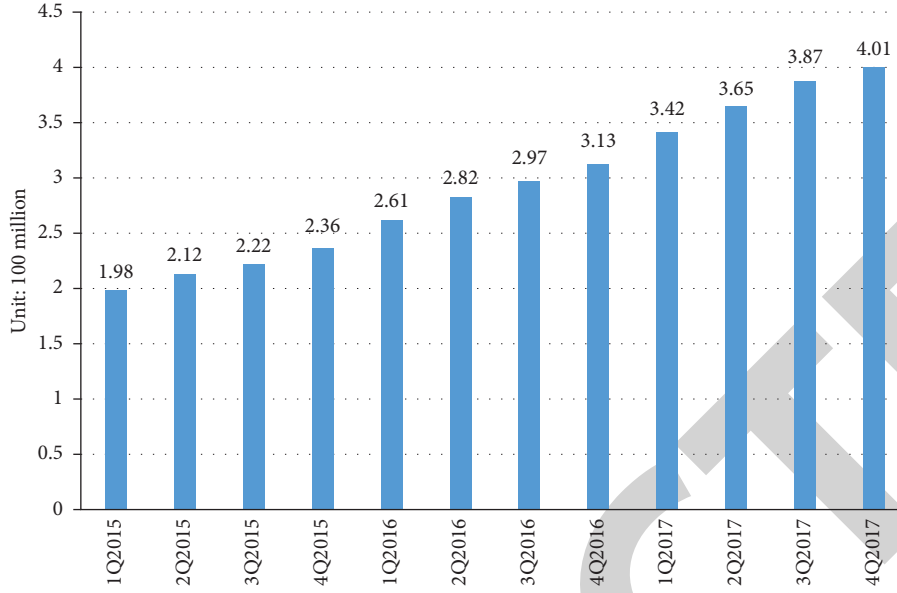


FIGURE 4: Number of active users of Weibo in the past three years.

$$w_{ij}(t+1) = w_{ij}(t) + \eta \delta_i M_i + \alpha [w_{ij}(t) - w_{ij}(t-1)]. \quad (2)$$

In the formula,  $w_{ij}(t)$  is the connection weight from neuron  $j$  to the previous layer (input layer or hidden layer) at time  $t$ ;  $\eta$  is the actual output of neuron  $j$  at time  $t$ ;  $\alpha$  is thenbsp;step size adjustment factor; take  $(0, 1)$ ; for the smoothing factor, take  $(0, 1)$ ;  $\delta_i$  is the error weight adjustment factor.

For the output layer node,  $\delta_i = x_j(1 - x_j)(t_j - x_j)$  is the output target value; for the hidden layer node,  $\sum_k \delta_k w_{kj}$  is the actual output value of the hidden layer node  $j$ .

Error analysis: select the network relative error function:

$$E_k = \frac{M_{k0} - M_k}{M_{k0}}, \quad (3)$$

where  $E_k$  is the network relative error function;  $M_{k0}$  is the actual value, and  $M_k$  is the predicted network output value. Usually, if the error  $E_k$  is not greater than the allowable value of the network error, it can be considered that there is no error in the calculation of the model. For the final output value  $x$  of the network, the inverse normalization transformation is performed using the following formula:

$$x = x(x_{\min_{\max}} + x_{\min}), \quad (4)$$

where  $x_{\min}$ ,  $x_{\max}$  are the maximum and minimum values of the calculated output data, respectively; is the calculated output value. Calculate the actual output value of the neural network layer by layer.

$$\begin{aligned} y_j &= f \left[ \sum_{i=1}^n w_{ij} x_i - \theta_j \right], \\ z_k &= f \left[ \sum_{i=1}^n w_{ik} x_i - \theta_k \right]. \end{aligned} \quad (5)$$

Starting from the output layer, the weights are adjusted in reverse, and the formula consensus is as follows:

$$W_{jk+1} = W_{jk} + \eta \delta_k V_j, \quad (6)$$

$$W_{ij+1} = W_{ij} + \eta \delta_j V_i,$$

where

$$\begin{aligned} \delta_k &= (Z_k - Z_k) Z_k (1 - Z_k), \\ \delta_j &= y_j (1 - y_j) \sum_{k=0}^{L-1} \delta_k W_{jk}. \end{aligned} \quad (7)$$

Calculate the total error  $E$ ; if  $E \leq \varepsilon$ , then the learning stops; otherwise, recalculate. In the actual design of the network, if the step size is small, the learning speed will be slow, and if the step size  $\eta$  is too large, the network will oscillate. To solve this problem, a momentum  $\alpha$  ( $0 < \alpha < 1$ ) can be added, namely,

$$\begin{aligned} w_{ij+1} &= w_{jk} + \eta \delta_k y_j + \alpha \Delta W_{jk}, \\ w_{ij+1} &= w_{ij} + \eta \delta_j y_i + \alpha \Delta W_{ij}. \end{aligned} \quad (8)$$

This is an iterative process, the dynamic parameter is selected as 0.001, and each value is adjusted once in each round, and so on, until the dynamic parameter is less than the set target. Such a good network training succeeded. Select appropriate network parameters and carry out a sufficient number of iterations, the final results of the network training, and the error between the simulation results and the actual results will fall within the allowable range.

#### 4. Result Analysis and Discussion

Changshu Garment City has 7 state-owned markets, foreign trade clothing distribution centers, property companies, Fortis logistics, tourism service companies, and other directly subordinate units, in addition to more than 20 private markets to form an overall business model of clothing. At present, the average daily passenger flow of the garment city

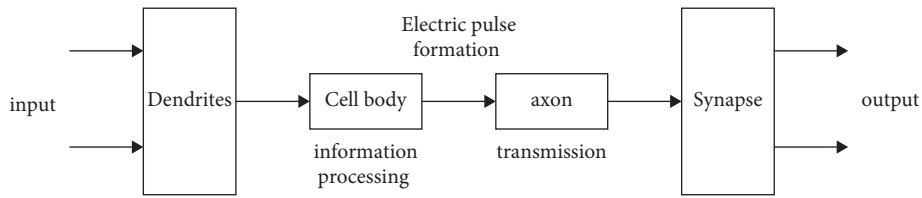


FIGURE 5: Single neuron structure model.

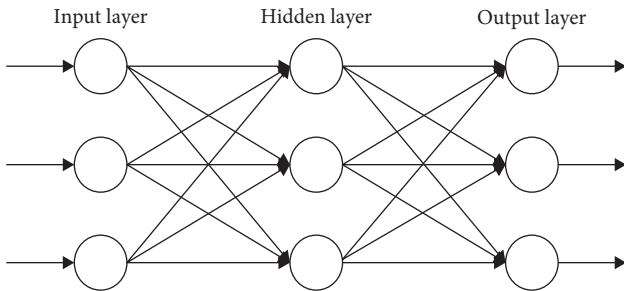


FIGURE 6: BP three-layer neural network structure diagram.

is 300,000 person-times, the daily capital flow is more than 2 billion yuan, and the overall annual turnover is increasing by 30%. For a long time, the garment city has gradually formed the status quo of national circulation with strong suction capacity and radiation capacity and gradually embarked on the road of specialization, marketization, standardization, and informatization. The brand is innovated, and the marketing department and brand area are gradually formed. Since 2015, Garment City has begun to realize the strategy of opening up and win-win inside and outside the industry on the basis of the existing basic business and gradually formed an open, inclusive, and integrated foreign trade market system. And it constantly innovates the construction of clothing trade platform and has formed a design, inspection, marketing, online consulting, and international trade and other 6 major public service platforms to provide customers with consulting, guarantee integrated services. At the same time, with its own brand, it has created the Garment City Expo, strengthening the way of enterprise leadership and industry-driven, realizing the combination of production and marketing, and creating the most influential garment city brand in China.

**4.1. Analysis of Shopping Tourists.** According to their permanent residence areas, the respondents were mainly from Jiangsu Province (48.2%) and Zhejiang Province (81.5%) and Anhui Province with 334 (8.3%), followed by Shandong Province with 277 (6.9%), Shanghai with 173 (4.3%), Fujian Province with 105 (2.6%), other provinces (including Taiwan, Hong Kong and Macao) with 310 (7.7%), and foreign tourists with 20 (0.5%). Among them, 1713 were males, accounting for 42.6%, and 2307 were females, accounting for 57.4%. The distribution of shopping tourists' habitual residences is shown in Figure 7.

According to the statistics of the 4020 questionnaire and the statistics of the same period of 2016 provided by the Clothing City Management Committee, the new media application of shopping tourists and the use of online equipment by shopping tourists are as shown in Table 4.

The market share is not only an important index to reflect the market synthesis and concentration, but also an important index to measure the competitiveness of an enterprise or a product. The scientific adjustment of marketing mix strategy is an important way for enterprises to increase their market share. To improve the market share of products, we can reduce the price, improve the quality of products and enterprises, improve the sales system, and so on. Now, take Fangtai Company as an example to illustrate the simulation results that it uses different marketing mix strategies to change its market share. The results are shown in Table 5.

**4.2. Empirical Analysis of New Media Marketing in Changshu Clothing City Shopping Tourism Scenic Spots.** The emergence of e-commerce has not had a substantial impact on the shipments, cash flow, and rental income of Changshu Garment City, and within the next five years, e-commerce will be replaced by new retail. New retail in the era of big data is an intelligent, personalized, and customized new commercial format that combines online, offline, and intelligent logistics. Changshu Garment City has integrated informatization and intelligence into all aspects of management in the development plan, created a flexible supply chain with the concept of supply-side structural reform, provided high-quality services and sufficient development space for enterprises and merchants in the park by means of informatization and intelligent services, and met consumer demand through management innovation and supply chain collaborative innovation, so as to achieve the sustainable development of China's Changshu Garment City.

Through the training of BP neural network model, the number of hidden layer nodes depends on subjective experience and repeated training of the network when the network reaches a certain stable state. We selected the number of hidden layer nodes as 7 and trained the network using MATLAB dynamic BP network training function `trainbpx()`, convergence accuracy is  $5E-6$ , get the model of each node weight and threshold model output market share of simulation value, neural network output accuracy is quite high, and the error rate of each product is below 5% (as shown in Table 5).

From the above analysis, it can be seen that there are many factors affecting product market share, but each factor

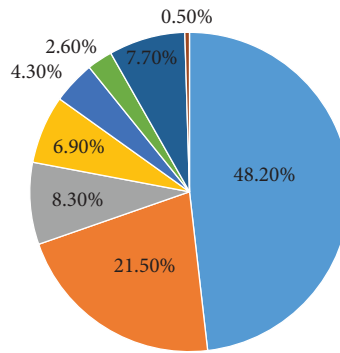


FIGURE 7: Distribution of shopping tourists' habitual residences.

in 4P and market share do not correspond to linear or other simple functions. How to combine 4P, with the limited resource investment to get the best income, so that the market position of enterprise products rises, improves the market competitiveness of enterprises; in the past, it was often difficult to carry out quantitative analysis. Here, we can use the market share neural network model for market simulation and put forward the marketing combination strategy for enterprise reference. There are many strategies to increase market share, such as price reduction, improving product quality and increasing advertising investment to improve visibility, and so on. We first list the schemes that enterprises may adopt, quantify them according to the input indicators of the neural network model, and simulate the model to calculate the predicted market share (as shown in Table 6).

The informatization and men's clothing index work of China Changshu Garment City are responsible for the Economic Development Bureau of the Changshu Garment City Management Committee, and the traditional media and new media advertising and the information collection of the "China Changshu Men's Clothing Index" are important tasks. Traditional media advertising includes television and radio advertising, periodicals and magazines, bus mobile TELEVISION, and outdoor (wall) advertising, with the slogan of "clothing ocean, shopping paradise, Jiangnan Blessed Land, Changshu," and this advertisement that has been broadcast in CCTV prime time for many years is the largest investment in advertising in recent years. In the information work, new media advertising mainly puts WeChat, tourism websites, microblogs, search engines, online videos, etc. The attention and practical application effect of WeChat public accounts show great potential with the increase of the number of global WeChat users, and it has been the best feedback effect in all media advertising. At present, the WeChat QR code matrix has been released on the official website of Changshu Garment City in China and traditional media advertisements (periodicals and magazines, bus mobile TV, outdoor wall advertising), realizing the effective combination of traditional media and new media. China Changshu Garment City WeChat QR code matrix includes Changshu Garment City, Changshu Men's Clothing Index, China Service e-commerce Park, Men's Wear Center, Tianhong Garment City, Festival Exhibition,

TABLE 4: New media applications for shoppers.

New media names	December 2016 (%)	December 2017 (%)
Wechat, QQ	92.3	97.4
Online shopping	88.5	92.3
Search engines	89.6	92.6
Online forums	48.2	52.5
Online group buying	35.9	39.2
Online payments	87.9	93.7
Online games	51.8	55.1
Blogs	45.2	48.6
Online videos	89.1	92.7
Strangers socializing	37.0	40.5
E-mail	58.5	55.6
Micro-blog	48.4	51.3

Children's Wear Center, Small Commodity Market, Footwear Center, East China Textile Center, Changshu Garment Online, Garment City Tourism Service, Men's Wear Design Transaction, Laopin City, World Men's Wear Index, and intelligent mobile terminal users that can scan the code to pay attention to the relevant WeChat public accounts and obtain massive information services including commodity display, shopping navigation, catering and cuisine, hotel accommodation, surrounding scenic spots, and so on.

The official website of China Changshu Garment City is not only the official government service center website of Changshu Garment City, but also the website of shopping and tourism services, as well as the release platform of "China Changshu Men's Wear Index." "China Changshu Men's Wear Index" is a men's wear index that is compiled under the guidance of China Textile Industry Federation and compiled by China State Information Center, which has a strong leadership in new, representative, authoritative, and international market discourse. The "China Changshu Men's Wear Index" includes the men's export price index (composed of 7 subitems such as suit suits, cold suits, coats/windbreakers, jackets, shirts, knitwear, trousers, etc.), wholesale and retail men's domestic price index (composed of 8 subitems such as casual down jackets, cotton suits, suits, jackets, cotton casual shirts, trench coats, cotton trousers, T-shirts), and men's fashion index (composed of 4 subitems such as production prosperity index, e-commerce prosperity index, market prosperity index, and purchasing manager

TABLE 5: The weights and thresholds of each node of the product occupancy neural network model.

	Input node 1	Input node 2	Input node 3	Input node 4	Each hidden node threshold	Each hidden node to output node weight	Output node threshold
Hidden node 1	0.7715	-0.2137	-1095	-1.7885	1.2041	0.0678	
Hidden node 2	-0.6666	0.0937	-0.1753	5.3667	-2.1096	0.6960	
Hidden node 3	0.2009	-0.0400	0.2376	-6.6978	-0.8859	0.0064	
Hidden node 4	-0.1036	-0.1753	0.2347	-5.8509	-0.0489	-0.6284	0.359
Hidden node 5	0.8188	0.0815	-0.0997	-4.6836	-0.9967	0.3008	
Hidden node 6	0.5705	0.5903	0.5544	-3.8890	-1.2090	0.4865	
Hidden node 7	-0.1396	0.1820	0.2209	1.8453	0.3817	-0.8723	

TABLE 6: Marketing combination strategy and market share simulation value.

Scheme number	Product quality	Price (yuan)	Popularity	Distributor fee rate	Market share (%)
Original scheme	3	0.7	7	0.15	17
Scheme 1	6	1.4	7	0.15	23.00
Scheme 2	3.4	0.77	7	0.15	17.5
Scheme 3	3.3	0.7	7	0.15	15.9
Scheme 4	3	0.63	7	0.15	15.2
Scheme 5	3	0.7	8	0.12	11.3
Scheme 6	3	0.7	5	0.2	17.4
Scheme 7	4.5	1.4	9	0.2	39.4
Scheme 8	5	1.4	7	0.3	31.3
Scheme 9	3	0.7	7	0.2	27.1
Scheme 10	4	0.7	7	0.15	13
Scheme 11	3	0.8	7	0.18	25.6
Scheme 12	5	0.7	6	0.15	3.1
Scheme 13	5	1.0	7	0.2	21.6

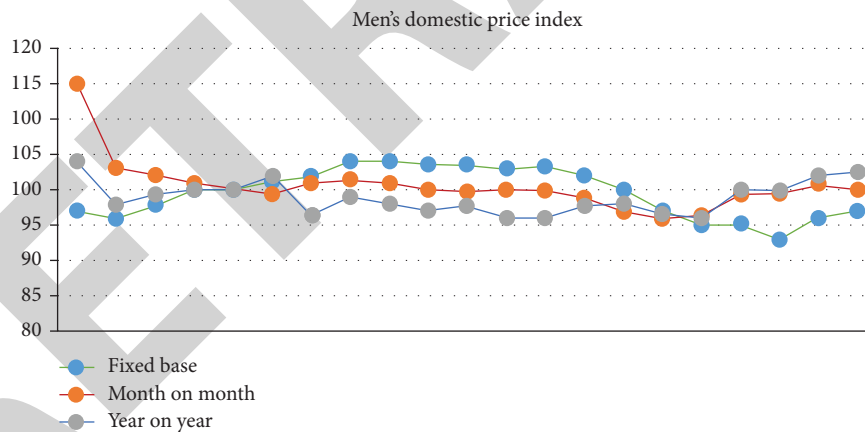


FIGURE 8: China Changshu men's wear index.

index), and every month, the data collected through 252 model companies and 552 model individual merchants in the middle and late years was uploaded to the China Changshu Men's Clothing Index Compilation Leading Group through computer terminals or mobile phone APPS and released after collation, as seen in Figure 8.

### 5. Conclusion

With the rapid development of the Internet, new media based on information technology have shown a strong momentum of development with continuous innovation,

which in turn affects global technological innovation and economic development. At present, in the context of new media, marketing activities have also broken the traditional constraints, from simple single-phase communication to two-way immediacy communication and communication development, which makes the role of information communicators and audiences simpler and faster, and the interactivity of new media information dissemination is reflected. Based on this background, shopping tourist attractions have also undergone tremendous changes in marketing, which has brought certain challenges to marketing and also brought opportunities and conditions for the

sustainable development of scenic spots. Therefore, in order to maintain mutual integration with new media, shopping tourist attraction marketing needs to take into account the following aspects: first, compared with traditional media marketing, new media marketing pays more attention to the setting and free conversion of roles in the marketing process, and through a thorough analysis of the media communication mode, it is possible to make reasonable arrangements for the acquisition and dissemination of tourism information, which can also effectively control marketing costs. Second, the marketing of shopping tourism attractions based on new media can make marketing flexible and subtle, and at the same time, it can further broaden the coverage of marketing, so that it shows a trend of globalization, and the marketing model also shows a strong activity and two-way trend. Third, the new media marketing strategy of scenic spots is also gradually changing: in the future marketing, micro-marketing will definitely become the protagonist, that is, to carry out marketing activities through WeChat, Weibo, etc., and its biggest advantage lies in the Pang of the social circle Big nature, every WeChat friend, or a Weibo fan, which can become a disseminator of information, and marketing information is like a virus directly spread out; online video and network live broadcasting has replaced the fixed TV media advertising, becoming one of the most widely used marketing means; in the security of third-party payment to ensure the premise, online orders and online payment have become the new normal. These will bring unlimited possibilities to the marketing of scenic spots. Fourth, with the help of perfect hardware facilities and friendly soft environment in shopping tourism scenic spots, combined with new media marketing, we can cater to the consumption needs of the current mainstream consumer groups. In the promotion of products and the promotion of activities, new media have advantages that traditional media cannot have. Therefore, as long as we master the reform of marketing means, we can promote the transformation and upgrading of tourism marketing. The new media marketing strategy of the tourism industry in the new era should keep pace with the times, give full play to the role of new media, break through the inherent marketing concepts and outdated marketing ideas, expand joint marketing activities, give full play to the people-friendly, interactive, and communicative nature of new media, promote the exchange and interaction between the tourism industry and tourists, and, at the same time, establish a new tourism exchange platform to help spread the voice of "donkey friends" from the people, create a new type of new media marketing program, and establish a new type of new media marketing strategy.

### Data Availability

The labeled data set used to support the findings of this study is available from the corresponding author upon request.

### Conflicts of Interest

The authors declare that there are no conflicts of interest.

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