Research article

The Great Tang All-Day Mall attractive cause analysis and guidance strategy

Weidi Zhang* and Lei Liang

Department of Environmental Design, Shaanxi University of Science and Technology, Xi’an City, Shaanxi Province, 710021, China

* Correspondence: Email: zhangweidi@sust.edu.cn; Tel: +8613689296932.

Abstract: With the rapid rise of social networking software, some attractive content has appeared on social platforms, which has spread rapidly and flourished in the online world. As a commercial district mainly featuring Tang culture, the Great Tang All-Day Mall has received widespread attention both in reality and on the Internet. In this paper, a big data semantic analysis model is introduced into the online reviews of the commercial district of the Great Tang All-Day Mall to understand the behaviour and experience of tourists. Using a large-scale review dataset, an exploratory analysis of the Great Tang All-Day Mall has been conducted. A comprehensive list of topics discussed by tourists visiting the Great Tang All-Day Mall has been created. The interests and concerns of the visitor groups are demonstrated. The proposed methodology and findings help commercial district managers understand visitors' perceptions so that effective marketing and improvement plans could be developed to attract and retain future customers.

Keywords: Great Tang All-Day Mall; online attractions; immersive economy; nocturnal economy; online reviews; semantic analysis; sentiment analysis

1. Introduction

1.1. The Great Tang All-Day Mall

Located in Xi’an City, Shaanxi Province, the Great Tang All-Day Mall extends from the South Square of the Big Wild Goose Pagoda in the north to the ruins of the Tang City Wall in the south. It
spans from Ci’en East Road in the east to Ci’en West Road in the west. With a block length of 2,100 metres from the north to the south and a width of 500 metres from the east to the west, the mall covers a total floor area of 650,000 square metres. With the cultural background of the Tang dynasty, Tang style elements as the main style, and the experience of consumption as the main feature, the project strives to create a one-stop consumption paradise that integrates shopping, catering, entertainment, recreation, tourism, and business [1]. In July 2020, the Great Tang All-Day Mall pedestrian street earned a spot on the first batch of national demonstration pedestrian streets as the largest sculpture landscape block in Asia. In 2019, the mall attracted more than 101 million visitors and generated a revenue of $1.569 billion. Its night tour products have the advantages of multiple types, extensive coverage and distinctive features, which positions the Great Tang All-Day Mall as a crucial foundation for the development of night tourism activities and is of great significance for the growth of the tourism industry in Xi’an [2].

As a representative of internet-famous attractions, the Great Tang All-Day Mall has received huge attention from customers across all major social media platforms (see Figure 1). The topic of “Great Tang All-Day Mall” on “Weibo,” China’s equivalent of Twitter, boasts a total readership of 240 million, along with 82,000 discussions and 29,000 original posts. On the “Dianping” platform, the attraction has been the subject of over 21,000 topics. On the travel platform “Qunar,” comments on the scenic spots have amassed 11,479, with a rating of 4.9; on “Ctrip” there are 2,177 comments with a rating of 4.6; the platform “Hornet’s Nest” features 2,705 travelogues about the Great Tang All-Day Mall, with a rating of 7,758. Most of the reviews on various platforms are concerned with the travelling experience at the Great Tang All-Day Mall, which is highly authentic.

Figure 1. Web platform thematic data.

1.2. Purpose and contribution of the study

In this paper, we conduct a specific case study through the analysis of visitors’ behaviour and experience based on online reviews as a way to explore the development direction of cultural and commercial districts in the current new technological environment and to provide insights into further development of similar commercial spaces. To achieve this objective, we employ the NLPIR (Natural
Language Processing and Information Retrieval) Big Data Semantic Intelligent Analysis Platform [3], a technology platform that integrates data mining, text analysis, and sentiment analysis to discover hidden semantic structures in text data. While NLPIR has been utilized in recent studies in the field of tourism and hospitality [4], its performance in the analysis of tourists’ behaviours in commercial neighbourhoods has yet to be evaluated. The current study demonstrates the effectiveness of NLPIR in a case study of the visitor experience in Datang Nocturnal City, China’s first commercial pedestrian mall themed on Tang culture. The analysis is grounded on a large-scale online review of Datang Never Night City, with detailed information on popular activities and discussion topics for each visitor group displayed.

This study not only provides some valid research data for research on the scenic spots of the Great Tang Nocturnal City but also serves as a practical case for experiments with NLPIR’s analysis of review data at scenic spots. It also offers case support for tourism researchers using online reviews to gain a deeper understanding of visitor behaviour.

1.3. Role of online reviews

The Internet plays a pivotal role in individuals’ lives. With the burgeoning growth of the tourism sector, online reviews and news, particularly diverse information generated by consumers, have become paramount in travellers’ decision-making processes, a phenomenon that captures increasing attention from marketing professionals and researchers alike [5,6]. There is a widely held belief that reviews from other consumers are relatively reliable, and many tourists also like to post their travel feelings on online platforms. Other tourists, based on these reviews, can assess whether or not it is worth visiting [7]. Nowadays, as masses of information are available online, tourists have to sift through a tremendous amount of information before travelling and plan their schedules according to their needs. Meanwhile, travel websites are rapidly developing, with many belonging to commercial companies or organisations. Community-based websites, in particular, are widely used by the public nowadays, where tourists book hotels in advance, evaluate tourist attractions according to real experiences, and rely on shared information from fellow travellers [8]. With the prevalence of this online information, this data is used in many studies [9,10]. First, the data can be easily accessed regardless of the time and methods required for collection. Second, the low probability of human interference renders it reliable in helping other travellers formulate their travel plans.

Online information, such as reviews, has grown increasingly attractive to researchers as it covers an abundance of detailed information that exposes consumers’ preferences [11]. These platforms combine facts, personal opinions, emotions, and impressions to provide authentic information about the visitor experience. Without specific frameworks, guidelines or review constraints, researchers can use expressions that precisely convey impressions and feelings about a product. Therefore, previous studies have employed online consumer reviews to understand consumer preferences across a wide range of topics. Online consumer reviews have been used to study travellers’ opinions of hotels, airlines, restaurants and attractions [12–14]. However, existing research focuses primarily on the hotel industry. Commercial district managers still lack effective experience in understanding visitor behaviour as well as in effectively managing and marketing commercial districts. This knowledge gap leads to several questions (see Figure 2): (1) What are the main topics in the tourists’ comments on online platforms? (2) What are the perceived differences among groups of tourists within these topics? (3) What are the important aspects that influence the tourist experience?
2. Methods and data sources

2.1. Description of thematic modelling

Online reviews typically contain large amounts of unstructured data that cannot be analysed with traditional statistical methods. Research on online reviews employs a combination of existing methods, including web crawlers, computational linguistics, data mining, machine learning, and other statistical methods, to collect, analyse and interpret textual data in order to extract meaningful insights [15].

Topic modelling is often used as it enables the discovery of hidden topics in textual data. The concept was first introduced by Hofmann et al. as “latent semantic indexing” [16]. Various mathematical frameworks, such as Singular Value Decomposition or Latent Dirichlet Allocation (LDA), can be utilized for topic modelling. LDA is the most commonly used technique, as it employs a parsed Dirichlet preferential distribution. It is assumed that the document covers only a few topics, and a handful of words denote the topics. The topics and words are represented as easily-interpreted and easily-analysed probability distributions. Topic modelling has been successfully applied in various fields such as medicine, geography, political science, and marketing. However, its application in the field of tourism and hospitality remains limited. This study further explores the capability of thematic modelling using LDA to discover new insights into tourists’ behaviours and experiences in commercial districts (the Great Tang All-Day Mall) in order to support commercial district managers in effective management and improvement.

2.2. NLPIR Chinese Word Segmentation System

The NLPIR Chinese Segmention System [17,18] is developed by Zhang Huaping’s team at the Chinese Academy of Sciences. This platform supports multiple encodings, operating systems and development languages. Its main functions include Chinese and English segmentation, keyword extraction, neologism recognition, adaptive segmentation and sentiment analysis. In keyword extraction, the system adopts the algorithm of cross-information entropy to automatically calculate
keywords. The adaptive participle function utilizes the cross-information entropy to automatically
discover new feature languages and adaptively test the language probability distribution model of the corpus.

2.3. Collection and processing of comment data

Reviews of the Great Tang All-Day Mall are available on various travel platforms, such as “Qunar”, “Ctrip”, “Hornet’s Nest”, and other travel platforms. For this study, user reviews
from “Qunar” and “Ctrip” were chosen as the data sources for their reliability in determining tourists’
opinions and perceptions, making them widely used in tourism research [19]. Most previous studies
have used reviews on these platforms to study tourists’ hotel preferences and food ratings. However,
these platforms also feature extensive reviews of commercial neighbourhoods, but few have used these
platforms to investigate tourist behaviour in commercial neighbourhoods [20–22]. To bridge this gap,
avtomated data extraction software was used to extract tourist reviews from “Qunar” and “Ctrip”. The
programme browses the review pages of the shopping malls and extracts text reviews and relevant data
such as the user’s original address, rating and time of the review [23,24]. It is worth noting that the
reviews are presented in free text form and should undergo processing before further analysis.

We use standard text processing techniques to process comments about the commercial
neighbourhood. Each comment is loaded into a text markup algorithm that breaks down the text stream
into words, phrases, symbols or other meaningful elements. Thereafter, the markup is subjected to a
regular expression text filter that eliminates any numbers or symbols. It is important to note the
assumption that Chinese words of noun type usually denote entities such as business features, symbols
and facilities. Accordingly, we exclusively identify and extract stemming words in the form of nouns
based on a dictionary that contains a comprehensive list of Chinese noun words. After preprocessing,
each comment is represented as a set of words that reflect the entities mentioned by tourists and are
relevant to their visit to the commercial neighbourhood.

2.4. Data extraction and model analysis

We have collected reviews from “Qunar” and “Ctrip” about visitors’ experiences at the Great Tang All-Day Mall. The data collection spanned from 10th August 2023, to 23rd August 2023. Since
it is a Chinese-language travel platform, the reviews are in Chinese. However, because of the vast
geographic expanse of China and the diverse demographic backgrounds of the provinces, there are
also reviews in Chinese provided by individual travellers from different countries and regions.
Therefore, the collated review dataset allows for the collection of discussion topics from travellers
with different demographic backgrounds. The collected data includes the content of the reviews, the
time of visit and the origin of the reviewers. For policy reasons, the origin of reviews from tourists
before August 2022 was not disclosed. Table 1 shows that 1,216 reviews were crawled from Ctrip,
and 9,336 reviews were extracted from “Qunar”, which has a default positive review feature. The
default comments were eliminated as invalid comments, and after cleaning up, 4686 valid tourist
comments were obtained, with a total of 5902 valid comments sourced from the two platforms.

Next, the crawled text data undergoes a cleaning process to remove any dirty data, such as
incomplete information, emoticon pictures and garbled text. For the processed text dataset, NLPIR is
used to segment the text. Before the word segmentation, two tables are prepared: the deactivation table
and the user-defined table, which are done through the removal of deactivated words and the addition
of custom user words to improve the accuracy and relevance of word segmentation. The deactivation table mainly filters out invalid, insubstantial or interfering words, such as phrases or words like “a”, “le”, “ai ya”, “not only”, “no”, and so on. Additionally, other meaningless punctuation, like “#”, “*”, “@” and “/”, is also removed. The user-defined table is mainly used to set up theme words and special network words, such as “Da Tang”, “Bu Bu Tong Weng”, “Zhen Xiang,” and other unconventional phrases. Because the model is used to deal with visitor comments, custom user words will be added to focus on the object of visitors, such as “neat”, “classical”, “cool”, and “flying”, among others. The text of the data after word segmentation is defined as comment_words text, which is used for buzzword analysis and related word analysis in the analysis of visitor evaluation.

Sentiment analysis mainly explores the emotional state of tourists’ judgements or evaluations of the whole tourism process, such as scenic spots, consumer services and playing experiences in the text of online comments published by tourists [25,26]. A review of related literature reveals that words expressing emotions can be divided into two major groups: words expressing positive emotions, such as “excitement, happiness, anticipation”, etc., are classified as positive emotion words; words expressing negative emotions, such as “horrible, boring, worthless”, etc., are classified as negative emotion words. The emotion judgement of the samples in this study is mainly based on two types of emotion analysis techniques in the NLPIR: (i) after importing the comment text for analysis and word segmentation, the system automatically identifies and calculates the weights of the emotion words in the text. It repeatedly iterates according to the amount of different data to generate new emotion words and weights; and (ii) the system utilizes its own deep neural network of emotion discrimination. The emotion words of the comment text are semantically expanded on the basis of the system’s own deep neural network. Finally, a comprehensive and detailed emotion judgement of the imported comment text is obtained.

First, the emotional vocabulary is extracted. According to the word frequency statistics technology in the NLPIR, the nouns, verbs and adjectives from the visitor review text are extracted. The emotional composition of the visitor review text is analysed based on the high-frequency phrases of the adjectives and the frequency of words. After processing and analysis, the emotional vocabulary of the visitor review text is statistically calculated [27]. Second, because the software cannot understand the text context during the word segmentation process, which may lead to inaccuracies or incompleteness in the separated words, it is necessary to manually screen and mark the words. The word separation process is repeated until the manually marked emotion words are accurately separated. Finally, the sum of the emotion word frequencies in the comment text serves as the research base. The emotion high-frequency words obtained from the comment text are input into the NLPIR, and the weighting ratio is derived through the emotion processing technology to finally yield the tourists’ perceived emotion composition map, which enables the assessment of positive and negative emotion processes of the tourists.

3. Results

3.1. Analysis of high-frequency feature words

Using NLPIR software to analyse and count the word frequency of the network text after word division after eliminating the meaningless words or words that have no intrinsic connection with the scenic spot, the top 100 high-frequency words are selected and ranked, and a high-frequency word list
has been obtained (see Table 1). The nouns in the high-frequency feature words mainly revolve around tourism nouns, scenic spots, and tourist attraction names, such as “tour guide”, “Terracotta Warriors and Horses”, “night view”, “Big Wild Goose Pagoda”, “pedestrian street” and so on. The adjectives in the high-frequency feature words are mainly the comments and feelings of tourists, such as “nice”, “happy”, “pretty”, “enthusiasm” and “attentive”. Most of the verbs in the high-frequency feature words reflect the main motives and activities of tourists in the scenic spots, such as “play”, “experience”, “eat”, “go sightseeing”, “show”, “buy”, etc.

Table 1. Glossary of high-frequency terms.

<table>
<thead>
<tr>
<th>Topics</th>
<th>No. of times</th>
<th>Topics</th>
<th>No. of times</th>
<th>Topics</th>
<th>No. of times</th>
<th>Topics</th>
<th>No. of times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tour guide</td>
<td>3628</td>
<td>In place</td>
<td>389</td>
<td>Children</td>
<td>216</td>
<td>Shaanxi</td>
<td>142</td>
</tr>
<tr>
<td>Explain</td>
<td>1776</td>
<td>Be responsible for</td>
<td>370</td>
<td>Lighting</td>
<td>211</td>
<td>Scenery</td>
<td>140</td>
</tr>
<tr>
<td>Xi’an</td>
<td>1206</td>
<td>Thoughtful</td>
<td>364</td>
<td>Huaqing Palace</td>
<td>210</td>
<td>Morning</td>
<td>140</td>
</tr>
<tr>
<td>Stroke</td>
<td>1155</td>
<td>Pleasantly</td>
<td>363</td>
<td>Earnest</td>
<td>204</td>
<td>Clean</td>
<td>139</td>
</tr>
<tr>
<td>Nice</td>
<td>1147</td>
<td>Attitude</td>
<td>361</td>
<td>Scenic spot</td>
<td>199</td>
<td>Hotels</td>
<td>139</td>
</tr>
<tr>
<td>Arrange</td>
<td>1025</td>
<td>Evening</td>
<td>338</td>
<td>Shopping</td>
<td>197</td>
<td>Interesting</td>
<td>138</td>
</tr>
<tr>
<td>Service</td>
<td>1021</td>
<td>Detailed</td>
<td>330</td>
<td>Night view</td>
<td>196</td>
<td>Delicious</td>
<td>137</td>
</tr>
<tr>
<td>Terra Cotta Warriors</td>
<td>870</td>
<td>Enthusiasm</td>
<td>307</td>
<td>Tourist</td>
<td>188</td>
<td>Rich</td>
<td>134</td>
</tr>
<tr>
<td>The Great Tang</td>
<td>831</td>
<td>Big Wild Goose</td>
<td>300</td>
<td>Patience</td>
<td>186</td>
<td>It’s a worthwhile trip</td>
<td>132</td>
</tr>
<tr>
<td>Dynasty</td>
<td></td>
<td>Pagoda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play</td>
<td>813</td>
<td>Noon</td>
<td>282</td>
<td>Next time</td>
<td>186</td>
<td>Buy</td>
<td>132</td>
</tr>
<tr>
<td>Special</td>
<td>756</td>
<td>Square</td>
<td>282</td>
<td>Humour</td>
<td>184</td>
<td>Notice</td>
<td>123</td>
</tr>
<tr>
<td>Stick</td>
<td>745</td>
<td>Shock</td>
<td>277</td>
<td>Beautiful</td>
<td>183</td>
<td>Street food</td>
<td>118</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>729</td>
<td>Thanks</td>
<td>268</td>
<td>Perform</td>
<td>181</td>
<td>Price</td>
<td>115</td>
</tr>
<tr>
<td>History</td>
<td>706</td>
<td>Travel</td>
<td>262</td>
<td>Travel agency</td>
<td>180</td>
<td>Building</td>
<td>114</td>
</tr>
<tr>
<td>Night</td>
<td>676</td>
<td>Lunch</td>
<td>253</td>
<td>Travel</td>
<td>177</td>
<td>Weather</td>
<td>114</td>
</tr>
<tr>
<td>Happy</td>
<td>615</td>
<td>Go sightseeing</td>
<td>249</td>
<td>Like</td>
<td>174</td>
<td>Strolling</td>
<td>111</td>
</tr>
<tr>
<td>Deserve</td>
<td>614</td>
<td>Characteristic</td>
<td>240</td>
<td>Friend</td>
<td>170</td>
<td>Take a look</td>
<td>109</td>
</tr>
<tr>
<td>Major</td>
<td>553</td>
<td>Huqing Pool</td>
<td>239</td>
<td>Careful</td>
<td>170</td>
<td>Afternoon</td>
<td>106</td>
</tr>
<tr>
<td>Reasonable</td>
<td>536</td>
<td>Attentive</td>
<td>237</td>
<td>Look after</td>
<td>155</td>
<td>Enrich</td>
<td>106</td>
</tr>
<tr>
<td>Experience</td>
<td>526</td>
<td>Careful</td>
<td>236</td>
<td>Dumpling</td>
<td>154</td>
<td>Hygiene</td>
<td>103</td>
</tr>
<tr>
<td>Patronise</td>
<td>474</td>
<td>Pretty</td>
<td>232</td>
<td>Prosperity</td>
<td>153</td>
<td>Sculpture</td>
<td>102</td>
</tr>
<tr>
<td>Eat</td>
<td>462</td>
<td>Knowledge</td>
<td>232</td>
<td>Show</td>
<td>150</td>
<td>Lively</td>
<td>100</td>
</tr>
<tr>
<td>Attractions</td>
<td>456</td>
<td>Fun</td>
<td>231</td>
<td>Pedestrian Street</td>
<td>146</td>
<td>Year</td>
<td>87</td>
</tr>
<tr>
<td>Culture</td>
<td>430</td>
<td>Positive reviews</td>
<td>230</td>
<td>Feel</td>
<td>146</td>
<td>Night</td>
<td>75</td>
</tr>
<tr>
<td>Driver</td>
<td>407</td>
<td>Understand</td>
<td>223</td>
<td>Whole</td>
<td>145</td>
<td>Tilting doll</td>
<td>68</td>
</tr>
</tbody>
</table>

Note: List of subject nomenclature order. Source: “Qunar” and “Trip.com Group” platform online review data of scenic spots.
3.2. Cognitive experience analysis

Combining the word frequency analysis and the evaluation data of the tourism experience of the Great Tang All-Day Mall, the following analyses are obtained:

3.2.1. Tourism attractions

Humanistic landscapes were mentioned most frequently by tourists, with a total of 2,459 times. As seen below (Figure 3), among these landscapes, “Terra Cotta Warriors” (870 times), “Big Wild Goose Pagoda” (300 times), “Square” (282 times), “Huaqing Pool” (239 times), “Huaqing Palace” (210 times), “Night View” (196 times), “Pedestrian Street” (146 times), “Building” (114 times), and “Sculpture” (102 times) left a deep impression on the visitors. In addition to traditional attractions, all things or activities that can attract tourists can be called tourist attractions. The review words of the Great Tang All-Day Mall Scenic Spot are “History” (706 times), “Culture” (430 times), “Lighting” (211 times), “Perform” (181 times), “Show” (150 times), and “Tilting doll” (68 times), which are the tourist attractions mentioned by tourists. Of the attractions that were mentioned more often, “History” ranked 14th among the high-frequency words, and “Culture” ranked 24th, which shows the outstanding features of the Great Tang All-Day Mall as a cultural tourist attraction, which elicits a very high response from tourists to history and culture. “Perform” and “show” ranked 63rd and 72nd respectively, and this kind of special performance is also a big attraction to tourists. “Tilting doll” came in at number 100, due to the rapid rise in popularity of the “Miss Undefeated” show on the internet in 2019, which attracted many tourists to the Great Tang All-Day Mall.

3.2.2. Tourism activities

As shown in the figure below (Figure 4), “Tour guide” is mentioned most frequently in tourism activities, with a total of 3628 times, “Explain” (1776 times), “Stroke” (1155 times), and “Travel agency” (180
times). The main reason for the high frequency of these words is due to the fact that, as a hot tourist attraction in Xi’an, the Great Tang All-Day Mall has a high proportion of people visiting in travel agency groups. In terms of accommodation, the word “Hotels” appears 139 times, with individual comments simply stating, for example, “There are many hotels around the Great Tang All-Day Mall, which is very convenient”. In terms of catering, “Lunch” (253 times) ranked 40th among the high-frequency words, ranking relatively high, indicating that tourists have a deeper knowledge of neighbourhood catering, and “Street food” (118 times) was mentioned more, which shows that local specialties still easily capture people’s attention. In terms of shopping, “Shopping” (197 times) and “Price” (115 times) ranked 56th and 88th among the high-frequency words, which is not too high, indicating that, although it occupies a certain portion of tourists’ travel behaviour, it is not the same as other subcategories in terms of tourists’ perceptions. This shows that it is weaker than other subcategories in terms of “Shopping”, with tourists simply commenting that “there is everything you want in the nearby shopping district”.

![Tourism Activity Data Chart](image)

**Figure 4.** Map of tourism activity data.

3.2.3. Scenic environment

In the description of the scenic environment, “Pretty” (232 times), “Beautiful” (183 times), “Hygiene” (103 times), and “Lively” (100 times) were ranked in the statistical table of high-frequency words, ranking 46th, 62nd, 95th, and 97th, respectively. The ranking of “Pretty” and “Beautiful” in the table is relatively high, indicating that they left a deeper impression on tourists. For example, one netizen commented that “Xi’an net red card place, especially beautiful at night, there are a variety of performances, especially suitable for summer nights to go to browse, but a little crowded.” The main meaning of “Lively” is that there are a lot of entertainment activities and a large flow of people. For example, a netizen commented “This place should be a must-go place for Xi’an tourists, especially at night, it’s very beautiful, and very lively, very much like the feeling of the Tang Dynasty.” The word “Hygiene” indicates that the environment is relatively neat and clean, and in addition, “enthusiasm” and “attentive” also leave a deeper impression on tourists.
3.2.4. Tourist motivation and behaviour

In terms of travel time, “Evening” (338 times) is the most mentioned by tourists. For example, one netizen said, “Great free experience, feel the magnificent Tang Dynasty culture. A variety of performances are exquisite. The performance by the little sister and brother is wonderful. I suggest that we must go at night for the night view! Very beautiful.” The majority of tourists did not specify the season of the tour. They only mentioned that during weekend holidays or legal festivals, the degree of tourists’ desire will be higher. The motivation for traveling is mainly “experience” and “go sightseeing”. The use of the word “Driver” implies that tourists mainly travel by bus or taxi through travel agencies.

3.2.5. Emotional perception analysis

Based on the figure below (Figure 5), it is discovered through the analysis of emotional perception that tourists have a high emotional evaluation of the Great Tang All-Day Mall, with 91.14% expressing positive emotions, 0.27% expressing neutral emotions and 8.6% expressing negative emotions. The proportion of positive emotions with an emotional degree of 25 or above was 57.21%, the highest proportion, and only 0.75% of negative emotions reached the moderate level. Overall, the tourists’ touristic experience of the Great Tang All-Day Mall is dominated by positive emotions and strong emotions. While there may be a few negative emotions in the tourists’ touristic experience of the Great Tang All-Day Mall, the emotional response is not strong.

![Figure 5. Map of data on the percentage of sentiment in online reviews.](image)

The level of crowdedness had a negative impact on the visitor experience. As one netizen wrote, “The long holidays and Golden Week are really crowded.” Among the positive words, “Stick”, “Pretty”, “Satisfaction”, and “Beautiful” effectively summarize the tourists’ evaluation of the humanistic landscape of the city, indicating that the humanistic landscape has an impact on the tourists’ experience. The words “Characteristic”, “Deserve”, “Shock”, and “Enrich” also reflect the tourists’ feelings after visiting the Great Tang All-Day Mall, demonstrating their good experience with related tourism
activities and various attractions. For example, some tourists’ descriptions include: “Only here can I understand the limit of mobile phone pixels, and the bustling scenery is far beyond what the mobile phone lenses can capture”, “The city walls remain the same, the Wild Goose Pagoda towers over us, and the moonlight is like water, just like the tenderness of a thousand years ago”.

3.3. Analysis of data results

In the tourism experience cognition (Figure 6), tourism attraction serves as the core cognitive experience for tourists. In the humanities landscape, aspects like history and culture, including “Big Wild Goose Pagoda”, “Square”, “Sculpture”, “Night view”, and “Prosperity”, leave a lasting and impressive impression on tourists, which is also highly compatible with the official image of the positioning of Great Tang All-Day Mall, with a particular focus on publicity.

In tourism behaviours and activities (Figure 6), entertainment activities such as watching lights, shows, performances, tilting dolls and other mainstream expression categories find corresponding expressions in most perceived experiences of travellers. These activities contribute positive and profound perceptions to the tourists’ experiences. However, perceptions related to catering, accommodation, shopping, etc., appear to be weak with insufficient detailed descriptions in the corresponding categories, which should be deeply explored to meet the needs of tourists.

On the evaluation of the scenic environment (Figure 6), tourists appreciate the relative cleanliness of the area, and the free performances contribute to a positive travel experience. However, the feeling of being “crowded” is the most profound negative emotion expressed by tourists, which indicates that the scenic spot still has some deficiencies in terms of personnel diversion and reception capacity, which has a greater negative impact on the tourist experience.

Emotional analyses show that the majority of tourists generated positive attitudes and strong emotions about the experience (Figure 6). In addition, there was a wide range of high praise for the attractions, suggesting that visitors to the Great Tang All-Day Mall were far more delighted than bored. Tourists were keen to convey their enjoyment of the sightseeing experience. At the same time, an analysis of negative emotions indicates that the main dissatisfaction was caused by the issue of “too many people”.

![Figure 6. Analysis of data results.](image-url)
4. Discussion

4.1. Analysis of the Factors Contributing to Popularity

In a certain sense, high popularity is not only the result of planning but also the product of dissemination. It is an interesting, highly captivating behaviour event driven by compelling topics. In the dissemination process, it undergoes multiple rounds of circulation, with the creation of a geometric growth in click rates and the formation of new hotspots [28]. The attractiveness and drawing power of highly popular scenic spots benefit from the steady amplification of the spreading and diffusion effects. Whether it can be sustained largely depends on the introduction of new trending topics [29].

The investigation into the reasons for the tremendous popularity of the Great Tang All-Day Mall among tourists, of course, includes a variety of factors. However, in the strong Tang cultural atmosphere, maximum care for the visitor's sense of experience is definitely a key point that cannot be bypassed. The Great Tang All-Day Mall endeavours to use creativity to create a more approachable and interesting traditional culture and also repeatedly ascend the high-click rankings [30]. The newly introduced interactive method in the scenic area involves the engagement of visitors in poetry with “Li Bai” for a chance to receive a free Chinese hamburger. Thanks to the promotion of social media, this interactive way, on the microblogging hot search, hit the highest number of views that day. There is also a fun quiz between famous Tang officials “Fang Xuanling” and “Du Ruhi,” presented as an interactive quiz for tourists, which allows tourists to experience the joy when they play games in the process of learning about traditional Chinese culture, with educational significance for the popularisation of science. Playing in the Great Tang All-Day Mall, visitors can experience the scenes and customs of the Great Tang market. This immersive play experience not only imparts a strong cultural influence, but also allows modern people to further understand the traditional culture.

Many tourists have repeatedly mentioned the night scenery and lighting. In the development of its night tour, the Great Tang All-Day Mall has invested in a variety of content, including magnificent architectural lighting, landscape lighting, and the traditional Chinese romantic atmosphere of the “Poetry Forest”. Furthermore, there has been a significant adjustment to the operating hours of the scenic area, which is now open 24 hours a day, with all performances lasting until 10 o’clock at night. This adjustment greatly improves the tourist experience. Throughout the entire scenic area, the ubiquitous lighting embellishment creates a dreamlike atmosphere at night, combined with a variety of visual cultural content that exerts endless fascination on visitors.

Combined with the overall revenue scale of the scenic spot, visitor flow data and network-related data statistics, it is clear that the Great Tang All-Day Mall, as a nationally recognized tourist and cultural scenic spot, is favoured by tourists, and this affection is not accidental. The quality of the scenic spot itself, including cultural core, service, etc., is the basic factor that enhances its attractiveness. At the same time, the extensive development of short video network platforms promotes fun and interesting ideas, contributing to the wide adoration for the Great Tang All-Day Mall.

We give a brief overview of the factors contributing to the popularity of the Great Tang All-Day Mall, including the immersive experience offered by the scenic spot, the unique cultural charm of the Tang Dynasty, the innovative display of traditional culture in scenic spots, the accommodating opening hours and the development of communication media such as online platforms (Figure 7).
4.2. Analysis of guidance strategies

In the previous data analysis, we summarized through the analysis of the online review data of the Great Tang All-Day Mall that tourists have unique insights throughout the neighbourhood tour process, in which we identified two key aspects: (i) tourists are impressed by the sensory experience of the scenic area, including descriptions of the scenic area’s food, services, performances, light shows, scenery, etc.; and (ii) many tourists’ reviews are centred around cultural awareness, including the description of “Datang”, history, culture, knowledge and the zenith of the era. This, to a certain extent, reflects that the immersion and cultural charm brought by the Great Tang All-Day Mall are admired by tourists. Next, we further analyse these two aspects (Figure 8).

Figure 7. Analysis of the causes of popularity.

Figure 8. Analysis of elicitation strategies.
4.2.1. Sensory layer strategy

Enhanced multi-sensory engagement: Tang culture, with its long history, permeates the Dayan Pagoda scenic area, which creates a strong historical atmosphere. Through the immersive experience, tourists are guided to deeply feel the folk customs of the flourishing Tang Dynasty. The immersive experience allows tourists to sense the long history of the development of the city of Chang’ an as well as the rich cultural atmosphere. The immersive Tang Dynasty experience can be divided into two aspects: (i) it shows the folk customs of Chang’an City in the Tang Dynasty through immersive performances. Traditional Xi’an customs are combined with dance choreographies and live performances to show the unique cultural charms of the Tang Dynasty and to help the tourists quickly immerse themselves into the bustling marketplace through interactive experiences; and (ii) tourists experience the cultural atmosphere through practical theme activities. The site of the antique building creates an era-specific atmosphere, giving visitors the illusion that they are travelling through time and space. Businessmen dressed in period-corresponding vociferously peddle their wares, and game interaction for tourists further contributes to a sense of immersive atmosphere, which ensures that tourists feel the rich cultural heritage [31].

Enhanced Interactivity Experience: Chang’an City, amidst its prosperous development, boasts a bustling marketplace and features a variety of cultural and entertainment performances along its pedestrian streets. Visitors can generate a sense of immersion through interactive participation. The immersive entertainment experience draws on the interactive entertainment model of the theme park through staff role-playing and direct interaction with tourists. This integration ensures that tourists are integrated into the scene atmosphere in all aspects, which greatly improves their emotional experience while maximizing venue space utilization. Commercial spaces in the neighbourhood provide rich interactive experiences. In particular, the “Ci’en Town” Xi’an Snacks Cultural Street and the “New Lehui” Traditional Cuisine Cultural Street highlight high-quality, rich Chinese cuisine and cultural services, as well as a rich cultural atmosphere coupled with a variety of interactive activities. The rich cultural atmosphere and a variety of interactive activities allow visitors to enjoy the unique charm of traditional Chinese culture and amplify their sense of immersion.

4.2.2. Cognitive level strategies

Tapping into cultural “IPs” and shaping distinctive neighbourhoods: At present, creating immersive cultural tourism mainly relies on digital media technology, including virtual reality, augmented reality, holographic projection, intelligent interaction, and so on. Technology has brought significant improvement to the immersive experience at the visual sensory level for individuals. However, for diverse groups to be universally recognized at the cognitive level, cultural elements within the immersive experience are essential. The development of the immersive experience to delve deep into the cultural “IP” is based on achieving experience, interaction, and value conversion, rather than simply using technical means for tourists to showcase scenes of lightning, ignoring the cultural connotation and value embodiment. Modern technical means, combined with tourism culture “IP” at the scenic spot for the creation of an immersive experience, not only can bring tourists sensory shock but, more importantly, achieve the recognition of tourists’ thinking. To create the cultural “IP” of the Great Tang All-Day Mall, it is necessary to excavate the unique cultural resources of Chang’an and refine and sublimate them, firmly grasp the unique cultural soul of the Tang Dynasty, and look for
cultural differences to develop thematic blocks. Creating the “IP” of historical figures such as “Li Bai,” “Fang Xuanling,” and “Du Ruhi,” and through the interactive mode of scenes, constructing the intrinsic correlation and memory superimposed effect between different scenes. This method breaks the original closed scene attention conversion mode, promoting the transformation of the ticket economy to an industrial economy, and facilitates achieving higher attention in more diverse spaces and dimensions.

Combining narrative design and writing the story of the Great Tang Dynasty: Stories constitute an intrinsic facet of the human experience, transcending societal boundaries, and a robust cultural “IP” is inseparable from the art of storytelling. In a well-crafted narrative, tourists imbue their personal experiences, forging a profound connection. Facilitating this connection enables tourists to shape their own stories, transforming the narrative into an immersive experience, and reciprocally, the experience evolves into a narrative. Currently, narrative design manifests in two primary forms. The first involves constructing narratives for tourists at a spiritual level. The Great Tang All-Day Mall, serving as a scenic representation of the bustling Tang Dynasty bazaar, guides tourists through a comprehensive exploration of the Tang Dynasty market. This aims to evoke the distinctive allure of the Tang Dynasty bazaar, creating a profound immersive state in the mind. The second type pertains to the environmental context, where, on a material level, the overall setting aligns with the cultural theme. This includes features like the interactive program “Tang Secret Box” and diverse ancient clothing experience services, offering visitors a heightened sense of immersion. The synergy between the spiritual and physical dimensions is pivotal for crafting an immersive experience. In the realm of Disney theme parks, the visitors’ sense of immersion is intricately linked with familiar narratives and the enchanting scenic environment. By amalgamating these aspects, leveraging cultural “IP,” and fortifying thematic design, one can weave a distinctive narrative.

4.3 Development proposals

![Figure 9. Presentation of planning advice.](image)

4.3.1 Deepening of historical and cultural characteristics

From the tourists’ experience, visitors gain a particularly deep impression of the various characteristics of the human landscape, history, and culture of the Great Tang All-Day Mall, which play a key role in attracting tourism. Most visitors come to the Nocturnal City to experience the culture of the Tang Dynasty and witness the grandeur of all the states. The scenic spot should continue to focus
on these two aspects in the future and thoroughly explore the profound and unique culture of the Tang Dynasty to create a tourist attraction with distinctive cultural characteristics and actively promote its unique historical and cultural charms [32]. This approach allows the Great Tang All-Day Mall to offer an enhanced travel experience for visitors and sustain the allure of tourism.

A destination brand that highlights the convergence of traditional culture and fashion elements (Figure 9): As a landmark neighbourhood in Xi’an, the Great Tang All-Day Mall always glows with the cultural charm of intertwining classic and modern fashion. In view of the importance of cultural symbols of the era in commercial marketing, the cultural pulse can be grasped from four dimensions: time, place, people, and things. For the time dimension, the Spring Festival, Lantern Festival, Mid-Autumn Festival, and other traditional festivals held in the imitation of Tang cultural activities attract tourists to travel and feel the festive atmosphere; for the spatial dimension, in the activities, the content creates a prominent sense of surprise at the scene, a sense of atmosphere, and sets up suspense to stimulate interest in sightseeing tours for tourists. In terms of people and things, delving deep into the historical stories of Tang Dynasty characters, consistently restoring the excellent literature, folk art, and typical cultural relics of the Tang Dynasty enhance the authenticity of tourists’ perceptions, aiming to bolster the emotional connection to the cultural identity of the tourist destination.

Increase cultural marketing elements to optimize visitor spending patterns (Figure 9): The large-scale cultural commercial shops in the Great Tang All-Day Mall highlight the culture of the whole neighbourhood to a certain extent, so the neighbourhood can introduce more cultural commercial brands in subsequent development, especially small physical bookstores, libraries, small museums, and non-legacy exhibition and experience halls, to enrich the cultural business forms of the neighbourhood. In addition, in terms of the leisure atmosphere demanded by tourists, the neighbourhood can increase the number of special cultural bars, teahouses, and other leisure spaces, providing tourists with an ideal space for multiculturalism.

4.3.2. Enhancement of scenic tourism services

Multi-directional upgrading of scenic features to optimize user experience (Figure 9): The scenic area should not only provide tourists with perfect facilities and vigorously regulate the environment of the tourism market in the scenic area but also create a high-specification, high-quality, and idealized tourism experience to guarantee tourists’ travel services. For Great Tang All-Day Mall tourists, for food, accommodation, or shopping experiences that are perceived to be weak, the scenic area should make corresponding adjustments. In terms of catering and food, there should be safe and standardized food market supervision, but more food snacks with local characteristics should be provided. In terms of living, and in addition to meeting the basic conditions required by tourists in accommodation, there should also be a highlight of cultural characteristics to create a unique accommodation experience related to the scenic area, such as creating a Tang-style atmosphere in the hotel that tourists like and enjoy living in.

Ensuring the marketing effectiveness of tourism and recreation in an effective connection with social life (Figure 9): In response to the status quo where personal identity is stronger than social identity, the Great Tang All-Day Mall should, on one hand, continue to maintain its positioning as a historical, cultural, and leisure neighbourhood, highlighting the light-hearted and lively content on social media that showcases individual physical practices. On the other hand, it should improve the social acceptance of the Great Tang All-Day Mall by keeping close to current affairs’ hotspots,
targeting relevant topics, promoting cultural and creative products and stimulating users’ identity based on societal life to establish brand loyalty among travellers towards the tourist destination.

Increase the experiential business economy (Figure 9): Experiential business better reflects the neighbourhood’s focus on tourists’ participation, experience, and feelings and can also stimulate tourists’ interest in play. For the Great Tang All-Day Mall, in addition to rich performing arts programs, it can also add some non-heritage experience exhibition halls about Tang culture or secret room escape immersive experience shops, etc., to deepen the tourists’ playing experience and travel memories. The Great Tang All-Day Mall is more popular with young people, so the neighbourhood can also increase the animation space and other experience businesses that are more popular with young people, so as to improve the animation space and other experience businesses that are more popular with young people, so as to improve the satisfaction of tourists in the neighbourhood [33].

Optimize the spatial layout of the businesses and add businesses suitable for daytime consumption (Figure 9): Considering the uneven spatial distribution of tourists at night, mainly concentrated in the central landscape zone, shopping malls in the neighbourhood can be transformed into commercial localization, adding catering and shopping businesses with Xi’an’s local characteristics and entertainment projects that can attract tourists. Regarding the phenomenon of the significant difference in the number of tourists in the neighbourhood during the day and at night, the neighbourhood can add daytime projects for tourists to play or sightseeing attractions suitable for photography to attract more tourists during the day and to extend tourists’ time spent at the Great Tang All-Day Mall while maximizing the utilization of scenic resources.

4.3.3. Improvement of tourist reception

Scientific planning of tour routes to improve passenger flow (Figure 9): Through sentiment analysis, negative emotions are mainly due to “crowding”. Effective queue management can be implemented as the first option to deal with tourist attractions effectively when they are overcrowded. For example, with the performance of the Miss Tumbler Sisters, due to too many onlookers, tourists often complain that they cannot see. As a solution, it may be useful to set up detour channels and entrances and exits, and have visitors queue in order to watch. This not only ensures the safety of visitors but also enhances the overall experience. Improving the signage system will help visitors better understand the overall layout of the Great Tang All-Day Mall Commercial Street and get to their destinations faster.

Enhancement of supporting related infrastructure (Figure 9): Regarding the issue of poor continuity in the commercial zoning of the neighbourhood, it is possible to add some sightseeing spots and highly popular attractions in places where the distribution of businesses is relatively small. Building footbridges over the streets passing through the neighbourhood can reduce the pressure on traffic management to a certain extent and improve the overall continuity of the neighbourhood. This makes the neighbourhood richer in a sense of hierarchy. Additionally, to improve the signage and interpretation system, the neighbourhood can add relevant facilities to guide and interpret the location, time, characteristics, and functions of each functional area, along with relevant performing arts shows, enhancing the tourists’ experience.

Leveraging the interactive effects of clusters of tourists (Figure 9): Based on the significant role of interactive ritual symbols in the brand identity of tourist destinations, it is crucial to focus on tourists’ participation in the content marketing process to enhance the brand identity of tourist destinations. To carry out content marketing more accurately, fan groups can be established on social platforms, and
activities in the tourist destination can be regularly shared to deepen the emotional connection between tourists and increase customer engagement. The quality of user-generated content on various social platforms needs attention to ensure positive word-of-mouth. Simultaneously, tourism marketers should pay attention to the use of the art of expression when advocating interactive behaviours and draw the connection between tourists and the brand of the destination closer in easy-to-understand, humorous, and touching words to enhance tourists’ understanding and recognition of the brand of the destination [34].

5. Conclusion

As a tourist place where ancient and modern cultures are distinctly intertwined, the Great Tang All-Day Mall gives full play to the combined role of different tourist place brand symbols in content marketing and creates a tourist destination brand of “the most popular cultural tourism destination”. This allows tourists to have a double experience of self-identification and social identification based on different cultures and identity differences. Online reviews of the tourist attractions on information platforms precisely reflect the tourists’ most intuitive feelings. For the continued development of the brand of the tourist attractions, there are artistic performances based on history and culture such as the “Tang Dynasty,” “Dunhuang Flying,” and “Levitating Li Bai,” allowing tourists to immerse themselves in the splendid and colourful history of the great Tang Dynasty. The splendid and colourful culture of the Tang Dynasty, as well as modern popular elements of physical practice such as square fountains, light shows, piano paths, shouting springs, and human 3D printers, highlight the charm of the local cultural symbols of the times and enhance the sense of participation and experience of tourists.

By mining and analysing the comment information on the results of tourists’ experiences, various types of factors that make the Great Tang All-Day Mall commercial block popular, as well as its shortcomings, are clarified. From the perspective of experience, in the future, the scenic spot needs to continue to be developed in-depth for a multi-sensory interactive experience and the creation of cultural IP; from the perspective of the tourism mode, the Great Tang All-Day Mall neighbourhood should carry out further construction, development, and exploration in promoting cultural marketing, improving the quality of tourism services, and enhancing the level of visitor reception. Striving for excellence to enhance the cultural charm and the user’s sense of immersion, bringing a more pleasant and comfortable user experience under the influence of the cultural value system. In addition, highlighting the role of the environmental services of the Great Tang All-Day Mall in the presentation of artistic design, creating a lively atmosphere, providing satisfactory services, and other strengths, rendering the perceptual cognition of tourists with the value of emotional symbols such as the sense of social responsibility, dedication, and the sense of joy of festivals are not only symbolic information to construct the myth of the brand of the tourist destination but also a vivid embodiment of the symbols to meet the psychology of consumerism and the emotion of identity of the tourists.

Use of AI tools declaration

The authors declare they have not used Artificial Intelligence (AI) tools in the creation of this article.

Data Availability

The data used to support the findings of this study are in clouded within the article.
Funding


Acknowledgments

We are grateful for the support of the following projects: Youth Fund Project of Humanities and Social Sciences of the Ministry of Education: “Research on Cultural Inheritance and Contemporary Reshaping of Han and Tang Village Landscape Formation”, Shaanxi Social Science Fund Project: “Research on Data Mining and Resource Value of Revolutionary Cultural Relics Census in Shaanxi Province”, Shaanxi Provincial Department of Education (Colleges and Universities) Philosophical and Social Science Key Research Base Construction Project: “Research on Outward Dissemination of Shaanxi’s Excellent Culture in the Age of 5G and Mutual Appreciation of Civilisation. Mutual Learning Research.”

Conflict of interest

There is no conflict of interest in this study.

References


© 2024 the Author(s), licensee AIMS Press. This is an open access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0)