

Research on the Countermeasures of Night Economy Development in Qilou Street of Zhaoqing

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Abstract

This study examines the nighttime economy of Zhaoqing Qilou Street, conducting interviews with 18 tourists from Zhaoqing, Chaoshan, Guangzhou, Foshan, Yunfu, Dongguan, Jiangmen, and Shenzhen. Using text analysis software ROST CM6 and NVIVO15, the research evaluates tourists' experiences and perceptions of the Qilou Street nighttime economy. The findings reveal current challenges including subpar service quality, inadequate public facilities, low cultural adaptation, and homogenized business formats. The study proposes five recommendations: 1) Enhance service quality; 2) Improve public facilities; 3) Preserve cultural-tourism integration; 4) Optimize business layouts; 5) Implement policy support and safeguards. These recommendations provide valuable insights for the high-quality development of nighttime economies in similar commercial complexes like Qilou Street.

Keywords

Night Economy, Zhaoqing Qilou Street, Text Analysis, Development Countermeasures.

1. Introduction

The night economy, also known as nighttime economy, has emerged as a modern consumption model driven by rising living standards. As people increasingly engage in leisure activities beyond daytime hours, this economic sector typically operates from 6 PM to 6 AM the following morning, primarily serving local residents and tourists through shopping, entertainment, dining, and experiential tourism activities [1]. Research on night economy in China started relatively late. Scholars have analyzed specific cities to examine their nighttime economic conditions and propose recommendations. For instance, researchers Hao Li and Sun Xinghua conducted a study on Zhangjiakou, identifying challenges in its night economy while emphasizing its significance and suggesting strategies to revitalize it [2]. Additionally, numerous scholars have highlighted the importance of developing night economies. Xia Anling (2024) analyzed provincial-level data on nighttime lighting intensity and consumer spending, concluding that night economy serves as an effective tool to stimulate consumption potential. Expanding domestic demand scale and optimizing its structure are key factors in enhancing the positive impact of night economy on residents' consumption capacity [3].

Zhaoqing Qilou Street, originally constructed during the late Qing and early Republican periods, primarily spans Zhengdong Road, Chengzhong Road, and Tianning South Road in Duanzhou District, Zhaoqing City. Stretching nearly two kilometers from Yuejiang Tower on Zhengdong Road in the east to Songcheng Hotel in the west, it once served as the district's most prosperous commercial hub. Scholars Meng Ziwei and Li Xuhong (2013) conducted field research to examine the street's current state and historical significance, exploring its cultural value and preservation strategies, urging the government to prioritize its maintenance and revitalization to harness its cultural potential [4]. Li Zigeng (2017) analyzed the street's historical fluctuations through literature review and case studies, providing insights for Zhaoqing's efforts to revitalize Qilou Street's economy and build a historic cultural city [5]. Scholar Zhang Rongling

(2011) investigated the street's historical context, architectural features, and present condition through research and fieldwork, emphasizing the importance of balancing cultural heritage preservation with innovative urban development to promote integrated cultural-tourism growth in Zhaoqing [6]. In 2024, scholars Liu Hongjun and He Yun conducted a study using questionnaire and IPA analysis to assess tourist satisfaction in Zhaoqing's Qilou Street. Their findings revealed that visitors were dissatisfied with three key elements: landscape features, rest facilities, and public restrooms. The researchers recommended optimizing spatial layouts, enhancing ambiance, improving design quality, and refining service mechanisms [7].

In recent years, the Duanzhou government has undertaken a "micro-renovation" of Zhaoqing Qilou Street to create a distinctive cultural landmark. By blending the stone bricks of the ancient city wall with modern architectural elements, the project seamlessly integrates historical and cultural experiences with contemporary design. On December 30, 2023, Zhaoqing Qilou Street was officially inaugurated, attracting an average of 100,000 visitors daily during the New Year holiday [8]. Currently, Zhaoqing is actively promoting its nighttime economy through night markets and holiday events, skillfully combining nighttime lighting with the arcade-style architecture. By employing appropriate methods to revitalize this living cultural heritage, the project achieves a harmonious fusion of historical spaces and modern commerce, serving as a model for similar initiatives [9].

Since its renovation, Zhaoqing Qilou Street has attracted numerous merchants, with over 50 brands including Heytea and Shichu Lavi signing contracts. The street has also introduced intangible cultural heritage (ICH) experience projects like traditional Chinese medicine sachets and Leman Garden, forming a composite business model of "culinary arts + cultural creativity + ICH." Visitors can enjoy entertainment options such as arcades and claw machines. Beyond dining, cultural, and entertainment venues, the street features small retail shops. Food options include self-service hot pots, Riyu Night Bar, barbecue restaurants, tea houses, Chaoshan beef noodle soup, Songcheng Cuisine, Yiyang Teahouse, ice cream parlors, Liuzhou luosifen (snail rice noodles), pot rice, and noodle shops. Beverage choices range from herbal tea stalls and Heytea to underground coffee shops, 11 Degree Coffee, Grandma Zhao's Milk Tea, and various artisanal drink shops. Additionally, small stalls sell candied hawthorn, bamboo sugarcane water, lemon tea, stinky tofu, beef offal, bowl cakes, egg pancakes, and sweet soups.

This paper aims to analyze the existing problems and the factors restricting the development of the night economy of Zhaoqing Qilou Street, and put forward some targeted development countermeasures according to the actual situation, so as to promote the prosperity and development of the night economy of Zhaoqing Qilou Street, and provide reference for the development of other Qilou Street or cultural and creative street.

2. Research Methodology

The study focused on tourists visiting Zhaoqing Qilou Street between 6:00 PM and 6:00 AM the following morning. Through in-depth interviews, we gathered insights into the public's perceptions of the street's night-time economy and the factors influencing its development. This approach enabled us to thoroughly understand residents 'and visitors' experiences, evaluate their satisfaction levels, and identify consumer needs. By analyzing these findings and exploring underlying causes, the research provides practical theoretical guidance for future studies.

In this study, 18 tourists were interviewed, including 6 local tourists, 3 Chaoshan tourists, 2 Guangzhou tourists, 2 Foshan tourists, 1 Yunfu tourist, 1 Dongguan tourist, 1 Jiangmen tourist, and 2 Shenzhen tourists.

This study will employ text analysis to systematically examine the collected data, utilizing ROST CM6 for word frequency and semantic network analysis, and NVIVO15 for sentiment analysis, to scientifically identify the existing issues in Zhaoqing Qilou Street's nighttime economy.

3. Text Data Analysis

Building on the interview data, this study systematically organized the transcripts by removing non-essential interjections from respondents. The ROST CM6 software was employed for text analysis, which included word segmentation, frequency statistics, social network analysis, and semantic analysis. NVIVO15 was further utilized for sentiment analysis. The findings were presented through data visualization and charts to reflect tourists' authentic experiences with Zhaoqing Qilou Street's night economy.

3.1. Frequency Table and Word Cloud Analysis

After customizing the segmentation lexicon, the author processed the data with ROST CM6 software for word segmentation, then performed word frequency analysis to generate frequency tables and word clouds. The frequency distribution of individual terms reflects the project's appeal and the intensity of tourists' experiential focus, as illustrated in Figure 1.



Figure 1. Nighttime visitor experience on Zhaoqing Qilou Street.

The word cloud analysis reveals that "satisfaction" was mentioned 24 times among 18 respondents, indicating most visitors generally hold a positive attitude toward the street's nighttime economy. High-frequency terms like "characteristic features" (16 times), "arcade buildings" (10 times), and "architecture" (7 times) demonstrate tourists' appreciation for the street's distinctive architecture. The frequent mentions of "lighting" (13 times), "atmosphere" (9 times), "environment" (6 times), and "photography" (6 times) highlight visitors' focus on visual entertainment experiences, particularly the street's unique ambiance and character. Notably, lighting effects were frequently referenced, suggesting they play a key role in shaping Zhaoqing Qilou Street's overall atmosphere. Regarding public facilities, "toilets" (12 times), "convenience" (10 times), and "parking" (9 times) were the most emphasized aspects, as these facilities significantly impact visitor satisfaction. For future development, maintaining the arcade buildings' unique features and the street's pleasant ambiance is crucial. Public facilities requiring priority upgrades include restrooms and parking spaces. The phrases "nothing" (11 times) and "desolate" (1 time) suggest that shops on Zhaoqing Qilou Street fail to meet

The semantic network diagram clearly shows the attraction, environment, public facilities and services, tourist behavior and experience emotion between the Qilou Street night activities, which provides research value for the development of Zhaoqing Qilou Street night economy.

3.3. Sentiment Analysis

The author imported the processed interview transcripts into NVIVO15, a text analysis software. After the software automatically coded the sentiments, manual adjustments were made to unreasonable classifications. The final sentiment analysis data on respondents' evaluations of Zhaoqing Qilou Street was exported and presented in visual formats, as shown in Figures 3 and 4.

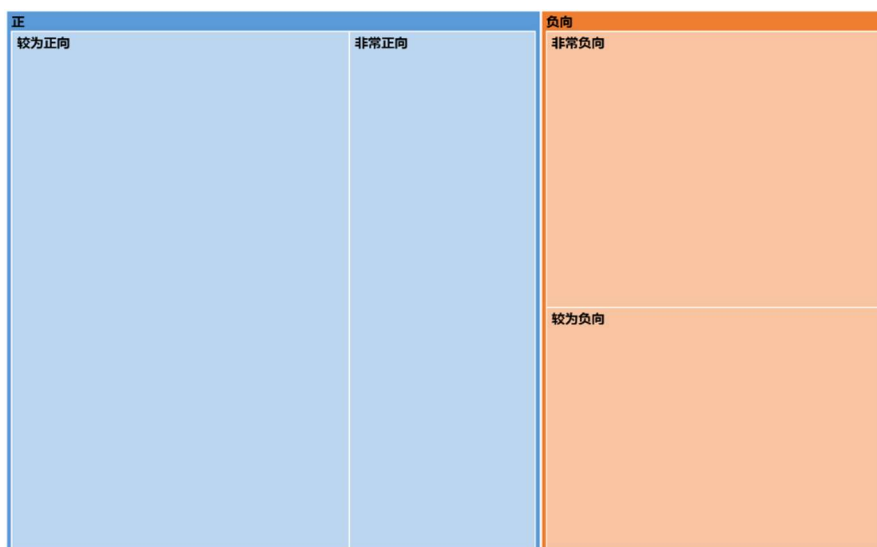


Figure 3. Nighttime Tourist Experience on Zhaoqing Qilou Street

Table 1. Emotional engagement levels of nighttime visitors during their experience at Zhaoqing Qilou Street

Code writing	Coverage percentage
Emotions \ Negative	27.34%
Emotions \ Negative \ Very Negative	16.49%
Emotions \ Negative \ Relatively Negative	10.85%
Emotions \ Positive	33.43%
Emotions \ positive \ very positive	7.59%
Emotions \ positive \ relatively positive	25.84%

Text analysis in Figure 3 reveals that positive emotions outweigh negative ones, indicating that nighttime visitors generally enjoy Zhaoqing Qilou Street, particularly appreciating its lighting ambiance and cultural charm. Their travel and shopping experiences are highly positive. Table 1 shows a 33.43% positive emotion coverage rate versus 27.34% negative, with 7.59% strongly positive, 25.84% moderately positive, 16.49% strongly negative, and 10.85% moderately negative. The nearly equal proportions of positive and negative emotions suggest some dissatisfaction with Qilou Street's public services, facilities, and the variety and quantity of shops.

Consumers express dissatisfaction with public service facilities like signage, with 44.1% of negative feedback related to restroom availability and parking issues. Respondent 15 noted, "We initially couldn't find restrooms. The sign next to them read' relocation, 'so we assumed it

wasn't here." Respondent 02 suggested, "Clearer restroom signage would be helpful." Respondent 05 complained about rest facilities: "We were tired from sightseeing and needed a place to rest, but there were few benches and they were unevenly distributed. It took us ages to find a seat, which felt inconvenient." Several respondents voiced strong dissatisfaction with public restrooms: "The facilities are poor-there are only three squat toilets, two of which are broken. The working one has a malfunctioning lock, and there's no gender segregation. The smell is overwhelming" (Respondent 10), "There's only one restroom" (Respondent 12). Regarding transportation, most tourists use taxis or drive themselves, with limited public transit options. Some also expressed frustration with parking: "Finding a spot was a real hassle. Limited parking spaces and unclear signage made me circle around several times. I wanted to enjoy my visit, but parking alone took forever" (Respondent 05). Some interviewees complained about service quality: "Long wait times for food delivery" (Respondent 18), "Unreasonable wait times for meals" (Respondent 04), "At Grandma Zhao's Milk Tea Shop, the wait was prolonged and staff allocation chaotic" (Respondent 16). Some respondents proposed expanding the variety and quantity of shops: "More recreational facilities could be added" (Respondent 01); "Some entertainment options are missing, like bars" (Respondent 04); "More specialty snack or dining establishments should be opened" (Respondent 08). These suggestions reflect tourists' dissatisfaction with the current shop types and numbers, indicating the need to further diversify and enrich the business offerings on Qilou Street.

4. Conclusion and Recommendations

4.1. Conclusion

Through comprehensive analysis of word frequency, semantic networks, and sentiment analysis, the following conclusions are drawn:

(1) The cultural characteristics, architectural design, and lighting ambiance demonstrate significant advantages.

Zhaoqing Qilou Street's nighttime economy derives its core competitiveness from its irreplaceable historical and cultural value and immersive nighttime scene design. Tourists' frequent mentions of "cultural features" (16 times), "architecture" (10 times), and "lighting ambiance" (13 times), along with a high satisfaction rate (33.43% positive coverage), demonstrate its strong cultural appeal and visual nighttime experience. The semantic network diagram reveals a core triangular relationship between "culture," "characteristics," "architecture," and "history," confirming Qilou culture as the cornerstone of cultural-tourism integration. Sentiment analysis shows that approximately 70% of positive reviews focus on nighttime lighting effects and cultural immersion. This indicates tourists' strong satisfaction with Zhaoqing Qilou Street's cultural features, lighting, and architecture, highlighting the importance of preserving this cultural identity.

(2) Discrepancy between Service Quality, Efficiency and Tourist Expectation.

The word frequency analysis reveals that terms like "service" appear frequently, indicating tourists' strong emphasis on service quality. The absence of "training" and "skills" in the high-frequency list suggests businesses lack proper training mechanisms. The semantic network shows strong connections between "service" and "attitude," highlighting that service attitudes significantly impact customer experience and require professional improvement. Emotional analysis reveals that complaints about "long wait times" (31.5% of negative reviews from respondents 04,06,16, and 18) indicate low service efficiency among some Qilou Street businesses.

(3) Lack of public service facilities

The word frequency chart reveals frequent mentions of "toilet" and "parking," highlighting issues like unclear restroom guidance and parking shortages. The high frequency of "garbage" and "sanitation" indicates inadequate hygiene management in Qilou Street. In the semantic network diagram, "sanitation" is connected to "environment," suggesting that cleanliness impacts tourists' environmental experience. "Convenience" (accessibility) is linked to "parking," "transportation," and "facilities," emphasizing the importance of accessibility and amenities for visitor satisfaction. Among the 27.34% negative sentiment coverage, 44.1% relates to "insufficient restrooms" and "parking difficulties," with respondents 02,05,10,12, and 15 expressing dissatisfaction with public service facilities.

(4) Weak transformation of cultural resources into consumption momentum

The word frequency chart reveals that terms like "delicacies" and "snacks" indicate tourists' strong interest in dining experiences, particularly local specialty foods. The low frequency of mentions for "steamed rice dumplings wrapped in bamboo leaves" (3 times) and "intangible cultural heritage" (0 mentions) suggests underutilized cultural resources, making it challenging to attract tourists through such offerings. The semantic network map shows Qilou Street's cultural uniqueness and historical background as key attractions, while the weak connection between "culture" and "commerce" indicates that the arcade culture has not been fully transformed into consumer appeal.

(5) There is a significant degree of homogeneity among the business formats.

The word frequency analysis reveals a striking contrast between "cold and quiet" (1 occurrence) and "video game console" (3 occurrences), highlighting the lack of appeal in entertainment options. The store types fail to meet consumer demands, with insufficient differentiated consumption scenarios. Meanwhile, food and beverage mentions are disproportionately high, as most shops on Qilou Street are catering businesses, while other categories are severely underrepresented. Most respondents expressed negative sentiments regarding store types and quantity, suggesting increased numbers or diversified shop types. This indicates significant issues with the business mix on Zhaoqing Qilou Street, characterized by pronounced homogenization.

4.2. Research Implications

(1) Improving Service Quality

Based on the analysis of word frequency, tourists attach great importance to service, and high-quality service system can create high-quality satisfaction for the city's night tourism, which is one of the important factors to obtain competitive advantage. It is necessary to improve the service quality of the merchants in Zhaoqing Qilou Street.

The first step is to train employees to shift their service mindset, enabling staff to adapt their methods and proactively address tourists' diverse needs. Simultaneously, enhance staff training to familiarize them with workflows and refine their skills, thereby boosting service efficiency and resolving quality concerns raised by tourists. Additionally, monitor employees' work attitudes to foster a positive and optimistic work environment, cultivating a strong sense of belonging that ultimately leads to superior guest service.

The community center on Qilou Street organizes service awareness and skills training courses, inviting professional instructors to train staff in etiquette and communication techniques. This helps reduce potential conflicts between employees and tourists, thereby enhancing the store's overall service quality.

(2) Improve service facilities

Enhance the construction of public restrooms and parking facilities. Data analysis indicates that consumers highly value the layout of restrooms and parking spaces on Zhaoqing Qilou Street,

with some respondents expressing dissatisfaction with nighttime operations of these facilities. To meet consumer expectations, it is essential to improve and maintain these areas.

Based on the planning and visitor flow at Zhaoqing Qilou Street, we will expand the number of restrooms and install clear, bright, and conspicuous signage at entrances to ensure visibility at night. Daily cleaning and disinfection will be enhanced to maintain restrooms in a clean, hygienic, and odor-free condition. Additionally, designated personnel will conduct regular inspections and maintenance of sanitary facilities to ensure their proper functioning.

For parking management, the Qilou Street area should be rationally planned with expanded parking capacity. Staffed parking guidance should be provided, and prominent signage with enhanced lighting installed at entrances to prevent nighttime visibility issues. Traffic flow around Qilou Street requires optimization through clear signage and proper traffic flow management to avoid congestion. Improved connectivity between parking facilities and the street, such as pedestrian overpasses and underground passages, should be implemented to facilitate walking access. The "Songcheng Qilou Street" official account provides directions to public restrooms and parking lots. QR codes for the account can be placed at street entrances and exits, enabling visitors to scan and follow for smart navigation and guided tours.

Enhance directional signage systems. As essential infrastructure in urban districts, these signs (e.g., road signs) guide tourists. Data analysis reveals that consumers frequently report difficulties locating restrooms and parking spaces due to inadequate signage. To address the 12th most cited issue regarding restroom accessibility, we recommend installing smart navigation screens (see Figure 3's semantic network analysis) or placing clear directional signs in prominent locations. Additionally, installing streetlights and illuminated strips in poorly lit areas can prevent tripping hazards caused by low visibility. These measures will enable tourists to efficiently locate facilities during nighttime travel, while distinctive and well-lit signage will significantly enhance their overall experience.

The rest areas require proper planning. In addition to the significant issues with public restrooms and parking lots, respondents 05 and 12 also complained about insufficient benches, indicating that inadequate rest facilities on Zhaoqing Qilou Street are a key factor affecting visitor experience. Addressing this issue could enhance tourists' perception of the street's appeal, thereby encouraging more spending.

Set up benches in the block, and it is recommended to set up two or three sets of benches every 100 meters. Design the appropriate size, create a comfortable rest area without affecting the block environment and traffic, and maintain the block environment regularly.

(3) Maintaining the distinctive features of cultural-tourism integration

As analyzed earlier, the nighttime lighting ambiance and cultural distinctiveness of Zhaoqing Qilou Street serve as key attractions for visitors. Nighttime activities, being a vital component of the local economy, can be regularly organized here. Events like the "Qilou Night Market" showcase traditional handicrafts and folk performances, encouraging public participation. Interactive experiences at Qilou Street further highlight Zhaoqing's historical and cultural heritage. The area already features an intangible cultural heritage (ICH) preservation base, where visitors can engage in hands-on activities. Regular folk performances and live traditional craft demonstrations allow tourists to closely observe these cultural elements. Additionally, live-action shows, musicals, and dance performances themed around Zhaoqing's history and culture enrich visitors' cultural experiences.

Leveraging Zhaoqing's historical and cultural heritage, we develop distinctive local cultural products and souvenirs, including arcade-style building models, keychains, traditional handicrafts, and WeChat/Alipay red envelope covers featuring the arcade design. We actively promote local delicacies like Zhaoqing Guozheng (steamed dumplings wrapped in glutinous

rice flour) and Yiyang Teahouse, using culinary experiences to deepen visitors' connection with the region's culture.

(4) Optimizing the layout of business formats

Modern consumers are increasingly demanding personalized experiences. The terms 'nothing' and 'deserted' in word frequency analysis reveal tourists' preference for distinctive and unique products and services. However, Zhaoqing Qilou Street's current offerings fail to meet these expectations, with noticeable homogenization. Enhancing the quality of tourist experiences and catering to individual preferences are crucial for boosting the night-time economy of Zhaoqing Qilou Street. The development of this sector requires diversified business formats. Visitors particularly value the street's vibrancy, hoping to find more shops and entertainment options. To enhance the appeal and diversity of Zhaoqing Qilou Street, we invite businesses to establish diverse commercial formats. Nighttime entertainment initiatives such as live music performances, crosstalk shows, and movie screenings should be encouraged to boost the area's nighttime vibrancy. Themed restaurants featuring authentic Zhaoqing cuisine and specialty snacks will be introduced, alongside creative retail spaces and handicraft shops showcasing local craftsmanship. An immersive murder mystery theater will be developed, using historical narratives or Qilou's legendary architecture as its backdrop for role-playing experiences within the arcade buildings. Cutting-edge tech stores utilizing VR and AR will recreate historical scenes, allowing visitors to virtually explore the street's heritage. Premium leisure venues like bars and wellness spas will cater to varied consumer preferences. Local college students are encouraged to launch startups, creating themed projects that preserve and promote the area's cultural legacy through innovative business models.

A well-planned business layout maximizes visitors' experience of Qilou Street. The street's functional zoning guides the distribution of various commercial activities. The entrance area features dining and retail options, allowing visitors to enjoy their meal before moving to the central zone with cultural experiences and entertainment. The rear section offers leisure and sightseeing facilities for those who wish to unwind.

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