Analysis of Tourist Experiences at Dark Tourism Sites in Kinmen: Clustering Analysis of Motivations, Emotional Responses, and Satisfaction

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ABSTRACT

Dark tourism involves visiting sites associated with death, disaster, and major historical tragedies. Kinmen, Taiwan, known for its history of multiple wars, features notable dark tourism sites such as Mount Taiwu, the Guningtou War Museum, and the 823 Memorial Hall. These sites currently offer educational significance about historical events, but visiting them often triggers complex emotional responses. This study explores tourist experiences at these sites, focusing on motivations, emotional reactions, and the relationship between satisfaction and psychological stress. The study surveyed 348 visitors and used clustering analysis to group their travel experiences. The results identified three types of visitors: History Enthusiasts, War Memorialists, and Exploratory Curiosity Seekers, each with distinct motivations and emotional responses. Emotions experienced include sadness, shock, fear, and unease, closely related to the content and atmosphere of the sites. While overall satisfaction is high, many visitors report being "satisfied but not happy." The study suggests targeted strategies to enhance dark tourism experiences, such as providing emotional support, emphasizing commemorative value, and offering ethical education. Recommendations for site management include addressing emotional needs and balancing educational significance with emotional impact.

KEYWORDS

Dark Tourism, Emotional Responses, Psychological Distress

1. INTRODUCTION

Dark tourism involves visiting sites associated with death, disaster, and historical tragedies, attracting visitors interested in history, human behavior, and social change due to their emotional impact and historical significance. Kinmen, Taiwan, is notable for its dark tourism sites, such as Mount Taiwu, the Guningtou War Museum, and the 823 Memorial Hall, which highlight significant war events and societal changes. Mount Taiwu reflects past conflicts, the Guningtou War Museum details the battle of Guningtou, and the 823 Memorial Hall stands out for its unique historical context. Despite increasing global interest in dark tourism, research on Kinmen's dark tourism experiences is sparse. Visitors to these sites often encounter emotional challenges, including sadness, shock, fear, and inspiration. Understanding how these sites affect tourists' psychological states and emotional responses is crucial. The phenomenon of being "satisfied but unhappy" describes tourists who find educational value in the sites but struggle with emotional burdens. This study aims to explore the motivations behind visits to Kinmen's dark sites, such as historical learning, war commemoration, moral reflection, and curiosity. It examines tourists' emotional responses and coping mechanisms and assesses the relationship between satisfaction and emotional distress, particularly focusing on the "satisfied but unhappy" experience.

Additionally, the study offers recommendations for improving the dark tourism experience and managing emotional impacts to enhance overall visitor satisfaction.

2. LITERATURE REVIEW

2.1. Concept and Development of Dark Tourism

Dark tourism involves visiting locations linked to death, disaster, and historical tragedies. Ashworth (2002) explores the appeal of death and disaster in dark tourism, emphasizing its educational and reflective aspects. He argues that dark tourism provides opportunities for deep reflection on human nature and historical events. Smith (2002) highlights its role in understanding human nature and past tragedies, while Stone (2006) presents a typology of dark tourism, offering a framework to understand its scope, diversity, and position in the tourism industry.

2.2. Historical and Cultural Background of Kinmen's Dark Tourism Sites

Kinmen's dark tourism sites are closely tied to key historical events. For example, Mount Taiwu and the 823 Memorial Hall commemorate significant battles that impacted Kinmen's modern political and social landscape. Seaton (1999) explores war tourism, providing context for understanding the significance of Kinmen's war relics. His research highlights the relationship between war and dark tourism, noting how visiting these historical sites can offer deep insights into wartime events. Hung and Chou (2011) discuss the motivations behind dark tourism, clarifying how historical contexts shape tourists' interest in these sites. Their study shows that historical background plays a crucial role in influencing tourists' motivations for dark tourism and emphasizes the importance of this background in attracting visitors.

2.3. Motivations for Visiting Dark Tourism Sites

Motivations for visiting dark tourism sites are varied, including historical education, commemoration, emotional challenge, and cultural identity exploration. Biran, Poria, and Oren (2011) identify the experiences sought at dark heritage sites, revealing that visitors are often driven by a desire to learn about the past and engage with significant historical events. Their study underscores the importance of historical learning and personal reflection in dark tourism. Kuo (2014) explores the relationship between dark tourism motivations and environmental attitudes, noting that motivations for dark tourism include not only a focus on historical events but also concerns about environmental issues. Lai (2012) investigates the emotional experiences of dark tourism visitors and their intentions to revisit, highlighting the role of dark sites in shaping tourists' emotional experiences and discussing how visitors form long-term memories in the face of emotional challenges.

2.4. Emotional Responses and Psychological Impacts

Visitors' emotional responses to dark tourism sites often include sadness, shock, fear, and discomfort. Martini and Buda (2020) construct a framework for death and disaster sites, discussing the impact of dark tourism experiences on visitors' emotional states. Their research provides valuable insights into how visitors manage emotions when facing these sites. Magano, Fraiz-Brea, and Leite (2022) explore the characteristics, behaviors, motivations, and well-being of dark tourists, offering insights into how these emotional responses affect overall satisfaction. They emphasize that emotional experiences have a significant impact on tourists' overall satisfaction. Liu and Li (2012) review empirical research directions in dark tourism, helping to

place the psychological impacts of visiting these sites in a broader context and providing theoretical and empirical support.

2.5. Tourist Well-being and Site Management

Understanding tourist well-being and improving site management are crucial for enhancing the dark tourism experience. Li (2012) and Lai (2012) both emphasize the importance of addressing the emotional challenges faced by tourists. Their research indicates that appropriate emotional support and management strategies play a vital role in improving tourists' overall experiences. Kennell and Powell (2020) and Huang (2024) study emotion-based site experience management, highlighting strategies for providing support and improving experiences to address tourists' emotional needs in dark tourism. Their research suggests that targeted management measures can effectively enhance visitors' satisfaction with dark tourism sites and help them better manage emotional challenges.

3. RESEARCH METHODOLOGY

This study employed a mixed-methods approach, combining quantitative and qualitative techniques, to comprehensively analyze visitor experiences at dark tourism sites in Kinmen. Data was collected through surveys, and clustering analysis was utilized to gain deeper insights into visitors' motivations, emotional responses, and satisfaction. The specific methods are as follows:

3.1. Survey Design

The survey was designed to provide a comprehensive understanding of visitors' motivations, emotional responses, and satisfaction. It is organized into several key sections. The Demographic Information section collects basic details about visitors, such as age, gender, educational background, and occupation, to ensure a diverse and representative sample. The Motivation Survey includes questions to explore what drives visitors to Kinmen's dark tourism sites, such as historical learning, war commemoration, moral reflection, and cultural curiosity. These questions use both multiple-choice and Likert scale formats to measure the strength of their motivations. The Emotional Response Survey measures visitors' emotional states during their visit, with questions on sadness, shock, fear, and discomfort, using both multiple-choice and scale formats, along with open-ended questions for capturing subjective feelings and detailed descriptions. Finally, the Satisfaction Evaluation assesses overall satisfaction with the sites, considering aspects like educational value, historical authenticity, emotional experience, and service quality, through scales, multiple-choice questions, and open-ended feedback to gather specific suggestions and comments from visitors.

3.2. Data Collection

The survey was distributed at major dark tourism sites in Kinmen, including Taiwu Mountain, the Qing Tian Hall, the Zhi Mountain Tunnel, the Guningtou War Museum, and the August 23rd Memorial. The distribution methods included both on-site completion and online surveys to enhance the coverage and reliability of the data. A total of 348 valid questionnaires were collected, covering visitors of various ages and backgrounds, thus ensuring the representativeness of the data.

3.3. Data Analysis

The data analysis involves several key components. First, K-means clustering analysis is utilized to categorize visitors into distinct groups based on their satisfaction, motivations, and emotional responses. This is complemented by hierarchical clustering analysis, which provides a deeper understanding of the detailed distribution of visitor experiences. Additionally, data processing and analysis are conducted using statistical software SPSS, which facilitates data cleaning, standardization, and both descriptive statistical and clustering analyses

4. RESULTS AND DISCUSSION

This study, combining quantitative and qualitative methods, provides an in-depth exploration of visitor experiences at dark tourism sites in Kinmen. The analysis of survey data revealed diverse motivations, emotional responses, and satisfaction levels among visitors. K-means clustering and hierarchical clustering analyses were conducted to identify the characteristics and experience patterns of different visitor groups.

4.1. K-means Clustering Analysis Results

K-means clustering analysis identified three main visitor groups. The History Enthusiasts, making up 60.47% of visitors, have a strong interest in Kinmen's war history and its consequences. They are satisfied with the educational value and historical authenticity of the sites but report lower levels of emotional burden, indicating that their focus is primarily on gaining historical knowledge with less sensitivity to emotional impact. The War Memorialists, accounting for 24.53%, are motivated by the desire to commemorate past events and figures. They experience stronger emotional reactions but have high satisfaction with the sites, reflecting their acceptance of emotional experiences and high expectations for the historical and commemorative value of the sites. Exploratory Curiosity Seekers, comprising 15.00% of visitors, are driven by a quest for moral and ethical reflection. They report high satisfaction with the sites but also face significant emotional challenges, demonstrating a deep recognition of the moral and ethical value of the sites. These clusters reveal distinct visitor profiles, each with unique motivations and emotional responses, offering a nuanced understanding of the dark tourism experience in Kinmen.

4.2. Hierarchical Clustering Analysis Results

Hierarchical clustering analysis revealed distinct patterns in visitors' emotional responses and satisfaction levels. The High Emotional Response Group includes visitors who experienced significant sadness (70.23%) and shock (65.12%). While they find the historical value of the sites satisfying, they report a substantial emotional burden. These visitors have intense emotional reactions and a deep appreciation for the educational value of the sites, yet they also face considerable emotional distress. The Moderate Emotional Response Group comprises visitors who felt fear and unease (54.83%). They report moderate overall satisfaction with their experiences, but also experience a significant emotional burden. Their emotional experiences are relatively complex, suggesting a need for further exploration of how satisfaction balances with emotional responses. The Low Emotional Response Group consists of visitors who experience mild discomfort and show moderate satisfaction with the educational value and emotional experiences of the sites. This group perceives less emotional impact and maintains an average level of satisfaction. These clusters illustrate the varying levels of emotional engagement among visitors, highlighting how emotional responses correlate with overall satisfaction and offering a deeper understanding of visitor experiences at dark tourism sites in Kinmen.

4.3. The "Satisfaction but Not Happiness" Phenomenon

Tourists experience a range of emotional responses during their visits, including sadness (70.23%), shock (49.81%), fear (29.65%), and unease (19.31%). These emotional experiences are closely related to the content and emotional atmosphere of the sites (Hsu, 2003). For example, the heavy historical background of Mount Taiwu and the 823 War History Museum evokes strong emotional resonance with past events among visitors. These results indicate that dark tourism sites in Kinmen are not only places of historical education but also triggers for emotional responses (Table 1).

Table 1. Emotional Responses of Tourists Visiting Dark Tourism Sites

Emotion	Percentage (%)
Sadness	70.23
Shock	49.81
Fear	29.65
Unease	19.31

Although most tourists reported high overall satisfaction (85.12%), and were quite satisfied with the educational value (90.29%) and convenience of facilities (84.73%), a significant number of tourists also reported psychological distress (20.47%). Satisfaction levels are closely linked to emotional responses; particularly, when tourists experience intense emotional impacts, their satisfaction, despite being high, is accompanied by increased psychological distress. The low rate of revisits (10.42%) is primarily due to emotional burden (59.88%), content repetitiveness (20.77%), and the uniqueness of the tourism experience (19.35%). This indicates that tourists retain strong emotional memories of these sites after their initial visit, affecting their willingness to revisit (Table 2).This study found that some respondents, despite being satisfied with their experiences at dark tourism sites, may not feel emotionally happy. This reflects a "satisfaction but not happy" response, highlighting dark tourism's uniqueness. Contributing factors include the tragic, historical, or suffering aspects of these sites, which, while educational and inspirational, can cause significant emotional stress. Strong emotional shocks from such information may affect overall emotional well-being.Additionally, discrepancies between pre-visit expectations and actual experiences can impact satisfaction and emotional response. For instance, if visitors expected more positive content but faced heavier emotional challenges, their satisfaction may rise, but so will emotional complexity and distress.This "satisfaction but not happy" phenomenon provides key insights for dark tourism development. It suggests that experiences should better address emotional needs, offering psychological support and positive content. Operators should align offerings with visitor expectations to balance educational and emotional experiences. This phenomenon also prompts reflection on how to create a meaningful tourism experience while respecting historical authenticity.

Table 2. Tourist Ratings of Dark Tourism Sites

Indicator	Percentage (%)
Overall Satisfaction	85.12
Satisfaction with Educational Value	90.29
Satisfaction with Facility Convenience	84.73
Satisfaction with Emotional Experience	79.58
Satisfaction with Authenticity and Respect	80.62
Psychological Distress	20.47
Revisit Rate	10.42

4.4. Discussion

- Visitor Experience Differences: The study reveals significant differences in experiences among visitors to Kinmen's dark tourism sites. History-oriented visitors focus on historical knowledge and are less affected emotionally, which aligns with their historical interests. War memorial visitors have strong emotional reactions, suggesting that their focus on the sites' commemorative significance enhances their emotional experience. Ethical reflection visitors report high satisfaction but also significant emotional burden, reflecting their deep contemplation and challenges related to the sites.
- Hierarchical Cluster Analysis: This analysis shows varied emotional responses among visitors. The high emotional response group deeply understands the historical value but faces significant emotional challenges. The moderate response group demonstrates the complex interplay between emotional reactions and satisfaction. The low emotional response group experiences the sites with less emotional impact.
- Recommendations for Site Management: Site managers should develop strategies tailored to different visitor groups. Providing emotional support and detailed explanations can help high emotional response visitors manage their burdens. Emphasizing the commemorative value and emotional aspects of the sites can address the needs of war memorial visitors. Ethical reflection visitors might benefit from more information on the moral and ethical dimensions of the sites to reconcile their satisfaction with emotional challenges.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

This study provides a comprehensive analysis of visitor experiences at Kinmen's dark tourism sites, revealing a range of motivations and emotional responses across different visitor groups. Significant variations in satisfaction and emotional impact are noted among history-oriented visitors, war memorial visitors, and those seeking ethical reflection. Hierarchical clustering analysis further reveals nuanced emotional responses, highlighting the distinct needs of high, moderate, and low emotional response groups. History-oriented visitors focus on the historical knowledge with lower emotional sensitivity, driven mainly by the educational value of the sites. War memorial visitors emphasize the commemorative significance and emotional experiences, suggesting a need for the sites to effectively communicate their memorial importance. Ethical reflection visitors report high satisfaction but encounter significant emotional burdens, indicating a need for additional support to help manage their emotional and ethical reflections.

5.2. Recommendations

Based on the study results, several recommendations are proposed to enhance the visitor experience. For the High Emotional Response Group, it is essential to provide targeted emotional support and interpretive services, such as counseling resources and background information, to help alleviate their emotional pressure. War Memorial Visitors should experience a heightened focus on the commemorative and emotional significance of the sites, with the establishment of memorials, organization of events, and provision of detailed historical information. To cater to Ethical Reflection Visitors, additional information on moral and ethical aspects should be offered, along with relevant exhibitions and lectures to aid in moral reflection and balance their satisfaction with emotional burdens. Developing personalized tour routes and programs can address various visitor motivations and emotional needs, thereby improving the overall experience. Finally, ongoing evaluation and improvement are crucial; this involves regularly

collecting visitor feedback, conducting follow-up surveys, and adjusting measures based on actual conditions to continuously enhance the visitor experience.

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