

Constructing a causal model of memorable game-based tourism experiences from a dramaturgical perspective

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INTRODUCTION

Game-based tourism is emerging as a new trend, in which tourists experience destinations by participating in available games or gamified designs integrated into tourism products/services (Coghlan & Carter, 2020). Many destination management organizations and businesses have implemented these initiatives to increase engagement, enhance destination knowledge, and create exciting experiences for tourists (Shen et al., 2020). Practical examples such as Pokémon GO demonstrate that game mechanics can encourage real-world exploration and motivate destination experiences, while inspiring many destination contexts to develop similar game models (Coghlan & Carter, 2020; Shen et al., 2020).

In the context of the experience economy, the competitive advantage of a destination increasingly depends on its ability to create memorable travel experiences (Ye et al., 2021), thereby increasing visitor engagement and loyalty (Vada et al., 2022). A memorable experience is defined as a tourism event that can be recalled and positively reminisced about after its conclusion (Kim et al., 2012). However, the literature review shows that most research on memorable experiences focuses on mass tourism; specialized contexts remain limited, and experimental studies in gamified tourism are particularly scarce (Hosany et al., 2022). This gap highlights the need to examine the antecedents and consequences of memorable experiences in a game context, especially as destinations expecting gamification may influence behavior and improve management outcomes such as revisit intention or recommendation (Sigala, 2015; Antón et al., 2017).

To fill this gap, this study applies drama theory and the service drama framework, viewing the service experience as a “performance” comprising theatrical elements designed to enhance interaction and enjoyment (Grove & Fisk, 1983; Grove et al., 1992). Studies in tourism contexts such as theme parks and festivals suggest that theatrical elements can promote immersion, deep focus, and strong engagement in the present, thereby contributing to memorable experiences (Carù & Cova, 2006; Kao et al., 2008; Xie & Li, 2023). Therefore, this study proposes and tests a relationship model in tourism based on games, in which four theatrical elements (attractiveness of staff, visitor-visitor interaction, attractiveness of the setting, and core services) play a role in promoting immersion. This state of immersion will lead to memorable game-based tourism experiences and ultimately increase destination loyalty, thereby providing empirical evidence of the role of memorable experiences on tourists' post-experience attitudes and behaviors (Reitsamer et al., 2016; Tabaeian et al., 2023). More specifically, this study contributes by integrating dramaturgy theory with the SOR framework into a single model tailored to game-based tourism, thereby clarifying how staged experience cues are translated into immersion, memorable experiences, and loyalty outcomes.

METHOD

This study constructs a theoretical framework based on Mehrabian and Russell's (1974) Stimulus–Organism–Response (SOR) model and applies drama theory to explain the premises and consequences of memorable game-based travel experiences. The SOR model is particularly appropriate here because game-based tourism is shaped by designed environmental cues that first influence visitors' internal psychological state and then translate into post-experience behavioral responses. In the SOR model, stimuli are conceptualized as (i) attractiveness of staff (actors), (ii) tourist–tourist interactions (audience), (iii) the attractiveness of the setting (environment), and (iv) core services (the performance) (Wu et al., 2020; Kao et al., 2008; Xie & Li, 2023). The body component reflects psychological state, where immersion is viewed as a cognitive–emotional response to stage elements (Hansen & Mossberg, 2013), leading to memorable experiences—experiences that can be recalled and positively reminisced after the trip (Kim et al., 2012). The response component is expressed by destination loyalty, measured through

the intention to revisit and the intention to recommend (Yoon & Uysal, 2005). Accordingly, destination loyalty is conceptualized here as an intention-based construct capturing both revisit intention and recommendation intention, rather than repeat behavior alone. This study proposed a research framework, and tested the following hypotheses:

- H1: Staff attractiveness (actor) positively influences immersion.
- H2: Tourist-to-tourist interaction (audience) positively influences immersion.
- H3: Setting attractiveness (environment) positively influences immersion.
- H4: Core service (performance) positively influences immersion.
- H5: Immersion positively influences memorable game-based tourism experience.
- H6: Memorable game-based tourism experience positively influences destination loyalty.

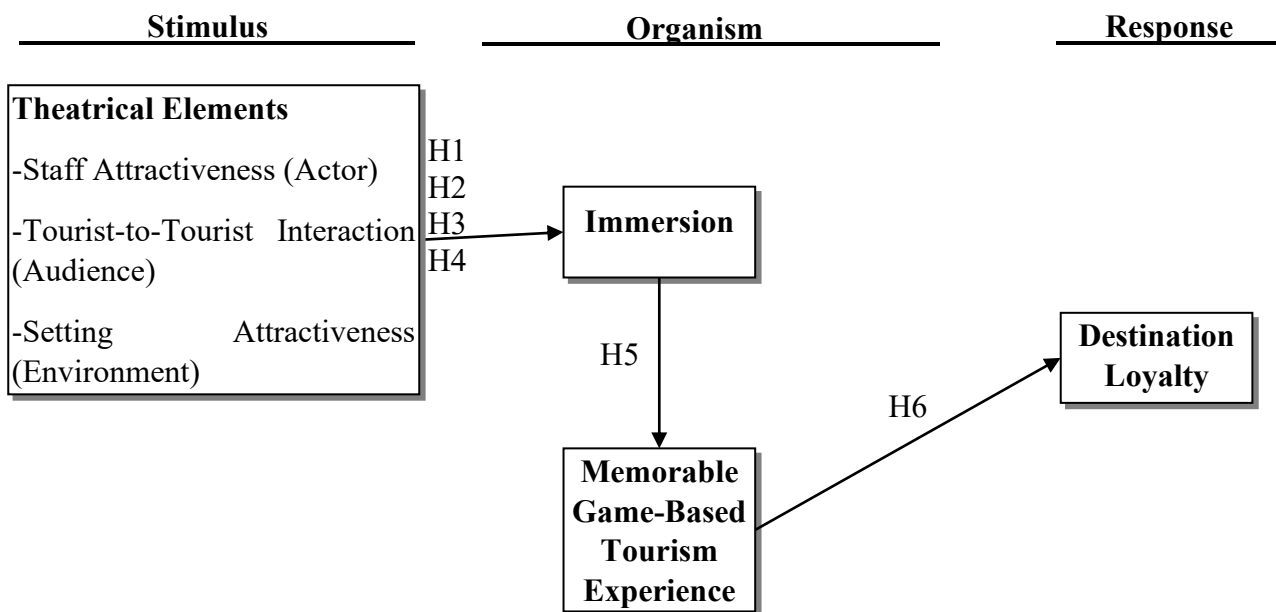


Figure 1. Conceptual Framework

Regarding the methodology, the study conducted on-site surveys following the procedure suggested by Wong et al. (2019) for tourists who had completed a destination-based real-world puzzle game. The research context was the game “Koxinga's Treasure” developed by Mango Game in Anping Old Street (Tainan), which simultaneously integrated the characteristics of challenge and treasure hunt games, consistent with the definition of game-based tourism (Shen et al., 2020). The measurement tools used inherited and adjusted scales for four stage elements (Wu et al., 2020; Kao et al., 2008; Xie & Li, 2023), immersion (Lunardo & Ponsignon, 2020), memorable experience (Kim et al., 2012), and loyalty (Yoon & Uysal, 2005), using a 5-point Likert scale, where 1 represents “strongly disagree” and 5 represents “strongly agree”. Data were collected through convenience sampling during group booking sessions, ensuring anonymity to reduce response bias, and yielded 332 valid questionnaires. The proposed relationships were tested using SmartPLS, and the measurement model demonstrated satisfactory reliability, convergent validity, discriminant validity, and model fit.

FINDINGS

The data were analyzed using SmartPLS. Before testing the structural model, the measurement model was first assessed to examine the reliability and validity of the constructs. As shown in Table 2, all indicator loadings were statistically significant ($p < 0.001$), with values ranging from 0.840 to 0.920, indicating satisfactory indicator reliability. In terms of internal consistency, the composite reliability

(CR) values of all constructs ranged from 0.899 to 0.933, which were well above the recommended threshold of 0.70, thereby confirming adequate internal consistency reliability. Moreover, the average variance extracted (AVE) values ranged from 0.737 to 0.823, exceeding the recommended value of 0.50 and thus supporting convergent validity. Regarding discriminant validity, all HTMT values ranged from 0.506 to 0.745, which were below the recommended threshold of 0.85. In addition, the square roots of the AVE values ranged from 0.858 to 0.907, all of which were higher than the highest inter-construct correlation of 0.657, further confirming satisfactory discriminant validity. With respect to model fit, the SRMR value of the saturated model was 0.050, indicating an acceptable fit.

The results show that four dramaturgical elements, such as: setting staff attractiveness (actor) ($\beta = 0.12$, $p = 0.011$), tourist-to-tourist interaction (audience) ($\beta = 0.08$, $p = 0.022$), attractiveness (environment) ($\beta = 0.19$, $p = 0.020$), and core service (performance) ($\beta = 0.33$, $p < 0.001$) have a positive and significant effect on immersion. Regarding the downstream relationships, immersion has a strong positive impact on memorable game-based tourism experience ($\beta = 0.54$, $p < 0.001$). In turn, memorable game-based tourism experience has a strong positive impact on destination loyalty ($\beta = 0.65$, $p < 0.001$). Overall, the findings suggest that enhancing the environment/setting and improving core service performance are the most effective levers for increasing tourists' immersion, which then translates into more memorable experiences and stronger destination loyalty. Taken together, the findings support an indirect pathway in which dramaturgical elements enhance immersion, then it strengthens memorable game-based tourism experiences, and memorable experiences foster destination loyalty.

CONCLUSION AND IMPLICATIONS

Based on experimental results, the study shows that four theatrical elements, namely: the attractiveness of staff, guest-to-guest interaction, the attractiveness of the setting, and core services, all positively impact immersion, consistent with the “actor-audience-stage-performance” perspective and co-creation of experience (Grove & Fisk, 1983; Kao et al., 2008). Subsequently, immersion enhances memorable game-based tourism experiences (Carù & Cova, 2006; Hansen & Mossberg, 2013), and memorable experiences foster destination loyalty (Antón et al., 2017; Jamshidi et al., 2023). Overall, the findings provide support for the proposed relationship model, although the cross-sectional design calls for caution in making strong causal claims.

Regarding implications, destinations should design products toward a “holistic performance,” synchronizing staff roles, social interaction, storytelling/atmosphere, and core service quality to maximize immersion. Academically, the study expands understanding of gamified tourism by integrating theater within the SOR framework and testing the mediating mechanisms of immersion; however, its generalizability is limited due to its single-case study and cross-sectional data, suggesting that future research should broaden the context, use longitudinal designs, and incorporate individual difference variables.

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