Frontstage Green Performances: How Impression Management Drives Pro-Environmental Travel User-Generated Content (UGC) Engagement and Behavioral Intention in China

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Abstract
Although pro-environmental engagement in tourism is typically explained by altruistic or moral motives, it remains unclear whether such engagement on social media is also driven by strategic self-presentation and whether it translates into offline pro-environmental intentions. Drawing on dramaturgical theory, it conceptualizes pro-environmental travel user-generated content (UGC) engagement as a frontstage moral performance and investigates how impression management motivation shapes such engagement and, in turn, pro-environmental behavioral intention in China. A cross-sectional online survey was administered to 584 Chinese tourists using purposive sampling, and the data were analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that impression management motivation positively predicts pro-environmental travel UGC engagement and pro-environmental behavioral intention. Pro-environmental travel UGC engagement also positively predicts behavioral intention and partially mediates the effect of impression management motivation on intention. By reframing pro-environmental travel UGC engagement as a dramaturgical performance, this study advances sustainable tourism research by clarifying how online moral self-presentation can translate into offline pro-environmental intentions. The findings further suggest practical implications for destinations and platforms to leverage social visibility and validation cues to encourage sustainable travel intentions.
Keywords: Pro-Environmental Travel UGC Engagement,Impression Management Motivation, Pro-Environmental Behavioral Intention, Dramaturgical Theory, Sustainable Tourism

Introduction
The rapid expansion of social media has fundamentally transformed how tourists communicate, construct identities, and engage with sustainability-related issues. UGC has

become a dominant channel through which tourists narrate travel experiences, evaluate destinations, and publicly express personal values (Amangeldi et al., 2023; Han et al., 2022; Wallace & Buil, 2023). Within this highly visible digital environment, pro-environmental travel UGC—content that highlights environmentally responsible travel behaviors such as waste reduction, low-carbon mobility, and nature conservation—has emerged as a prominent form of sustainability-related expression. Beyond serving as an informational resource, such content increasingly shapes social norms, influences peer behaviors, and contributes to the social diffusion of sustainable travel practices. As pro-environmental travel UGC becomes more prevalent, a pressing question concerns what motivates tourists to engage with it in public-facing, audience-oriented social media spaces (Alam et al., 2023; Han et al., 2018; Tang et al., 2024).

Existing tourism sustainability research has predominantly conceptualized tourists' pro-environmental engagement as driven by altruistic and moral considerations, including environmental concern, awareness, and personal norms (Han et al., 2018, 2022). These explanations have proven robust in accounting for private, low-visibility, and routine pro-environmental behaviors. However, they are less capable of explaining why tourists actively choose to publicly display their environmental behaviors through social media UGC (Dong et al., 2023; Wallace & Buil, 2023). In highly visible digital environments, where behaviors are continuously observed, evaluated, and socially compared, pro-environmental expressions are not merely personal moral choices but also strategic communicative acts (Alsaad et al., 2023). Accordingly, applying norm-based or value-driven models developed primarily for offline contexts to social media settings risks overlooking the performative and identity-driven dynamics embedded in visible sustainability expressions (Tang et al., 2024). This theoretical mismatch indicates a need for an alternative lens that can explain pro-environmental engagement when it is enacted under heightened visibility and reputational scrutiny.

To address this gap, this study draws on Goffman's (1959) dramaturgical theory to reconceptualize social media as a digital "frontstage" where individuals perform socially valued identities before an imagined audience. From this perspective, pro-environmental travel UGC engagement can be understood as a form of moral performance—a symbolic act through which tourists publicly signal responsibility, virtue, and social desirability (Wallace et al., 2020; Wallace & Buil, 2023). Unlike conventional norm-based explanations, the dramaturgical lens captures the strategic self-presentational motivations that underpin visible sustainability expressions in interactive social media settings (Dong et al., 2023; Venhoeven et al., 2016). This theoretical reframing is particularly pertinent in contemporary tourism contexts, where social approval, peer recognition, and reputational concerns increasingly shape tourists' online engagement behaviors.

Accordingly, this study develops and empirically tests a dramaturgical model of pro-environmental travel UGC engagement. Specifically, it examines how impression management motivation drives tourists' engagement with pro-environmental travel UGC and how such engagement translates into pro-environmental behavioral intention. Using survey data collected from 584 Chinese tourists and analyzed via PLS-SEM, this study makes an original contribution by repositioning pro-environmental travel UGC engagement as a frontstage moral performance rather than solely an ethical response. In doing so, it extends tourism sustainability research in three ways: it (1) introduces dramaturgical theory as a

social-science explanation for public-facing pro-environmental engagement, (2) identifies impression management motivation as a key antecedent of pro-environmental travel UGC engagement in highly visible digital environments, and (3) clarifies how such online moral performances partially translate into offline pro-environmental behavioral intention. Together, these contributions provide a theoretically grounded account of how identity performance and audience-oriented dynamics shape tourists' sustainability engagement in contemporary digital tourism contexts.

Theoretical Foundation
This study is theoretically grounded in Goffman's (1959) dramaturgical theory to explain why pro-environmental engagement on social media may reflect strategic self-presentation rather than purely altruistic concern. We conceptualize social media as a digital frontstage where tourists perform socially valued identities before imagined audiences, and we treat pro-environmental travel UGC engagement as a frontstage moral performance. Within this framework, impression management motivation functions as the psychological driver of frontstage performance, while such engagement is expected to strengthen pro-environmental behavioral intention by increasing identity salience and consistency pressures in audience-oriented environments. This conceptual framing guides the hypotheses development and the subsequent empirical analysis.

Dramaturgical Theory and Social Media as Digital Frontstage
Dramaturgical theory conceptualizes social interaction as a theatrical performance in which individuals strategically manage impressions before an audience to achieve desired social outcomes (Goffman, 1959). In this framework, the "frontstage" refers to public arenas where actors consciously present idealized selves through carefully curated performances, while the "backstage" comprises private spaces where such performances are prepared, negotiated, and internalized. This theoretical perspective emphasizes that social behaviors in public settings are inherently performative, symbolic, and oriented toward audience evaluation.

In contemporary digital environments, social media platforms function as institutionalized digital frontstages that structurally reproduce the dramaturgical conditions described by Goffman (Siegel et al., 2023). These platforms provide highly visible, persistent, and socially networked arenas in which individuals continuously curate profiles, select content, and display socially valued identities (Gadgil et al., 2021). Online interactions are inherently audience-oriented, shaped by anticipated evaluations, social norms, and reputational concerns (Assaf & Selim, 2021). As a result, impression management constitutes not merely a situational motive but a central organizing principle underlying social media engagement.

Pro-Environmental Travel UGC as Moral Frontstage Performance
From a broader behavioral perspective, pro-environmental behavior constitutes a specific manifestation of prosocial behavior, as both aim to promote collective welfare and socially valued outcomes (Han et al., 2018). In digital environments, prosocial behaviors are increasingly enacted and communicated through visible symbolic expressions rather than solely through private actions (Wallace et al., 2020; Wallace & Buil, 2023). Social media platforms provide institutionalized frontstage arenas in which individuals publicly display moral commitment, social responsibility, and alignment with collective values.

Within tourism contexts, pro-environmental travel UGC represents a salient instantiation of digital prosocial moral performance (Tang et al., 2024). By posting, sharing, or endorsing environmentally responsible travel content, tourists publicly associate themselves with socially valued moral norms and signal alignment with collective expectations of "being a good person" in digitally networked communities. Such engagement is not merely an expression of private environmental concern but a strategic symbolic act through which individuals enact prosocial identities (Dong et al., 2023; Venhoeven et al., 2016), communicate moral virtue, and negotiate reputational positioning before an online audience.

Emerging empirical evidence further supports this performative interpretation. Prior studies have shown that public-facing sustainability expressions are significantly shaped by anticipated social approval, reputational gains, and impression management motivations (Dong et al., 2023; Griskevicius et al., 2010; Tang et al., 2024). Sustainability-related postings have been conceptualized as a form of virtue signaling that communicates moral commitment and social desirability to online audiences (Wallace et al., 2020; Wallace & Buil, 2023). In tourism-specific contexts, recent research further indicates that tourists' pro-environmental UGC engagement is strongly influenced by peer visibility, social comparison, and reputational concerns, suggesting that such behaviors operate as digitally mediated moral performances rather than purely private ethical actions (Gerrath et al., 2024; Lavertu et al., 2020).

Accordingly, this study reconceptualizes pro-environmental travel UGC engagement as a form of digital prosocial moral performance embedded in dramaturgical frontstage dynamics, thereby providing a theoretically new explanation for public-facing sustainability expressions in contemporary tourism social media environments.

Hypotheses Development
Impression management motivation reflects individuals' desire to strategically regulate how they are perceived by others (Leary & Kowalski, 1990). In digital frontstage environments, such motivation functions as a key psychological trigger of self-presentational performance (Goffman, 1959). On social media, pro-environmental travel UGC represents a highly visible and socially desirable form of moral self-presentation (Alam et al., 2023). Particularly within Chinese social media contexts, environmentally responsible travel behaviors are normatively encouraged and socially rewarded, making sustainability-related UGC an effective medium for constructing positive social images (Han et al., 2018). Platform-based validation mechanisms such as likes, shares, and comments further reinforce the reputational value of such displays (Griskevicius et al., 2010). Accordingly, individuals with stronger impression management motivation are more likely to strategically engage in pro-environmental travel UGC as a frontstage performance to obtain social approval and reputational benefits. Accordingly, this discussion leads to the following hypothesis:
H1: Impression management motivation positively influences pro-environmental travel UGC engagement.

Tourists' pro-environmental behavioral intention reflects their willingness to adopt environmentally responsible actions during travel (Lin et al., 2022). In dramaturgical terms, many tourism settings constitute co-present frontstages, where tourists' conduct is evaluated in real time by physically co-located audiences (e.g., travel companions, guides, hotel staff, and other visitors) (Siegel et al., 2023). Under such co-present conditions, pro-environmental

actions carry immediate interpersonal meaning because they can be witnessed, interpreted, and responded to on the spot. Impression management motivation therefore translates into stronger pro-environmental behavioral intention as tourists anticipate real-time judgment and seek to avoid situational embarrassment or loss of face while sustaining a favorable image in front of those who are physically present (Dong et al., 2023). Accordingly, this discussion leads to the following hypothesis:

H2: Impression management motivation positively influences pro-environmental behavioral intention.

Social media increasingly blurs the boundary between frontstage and backstage, creating an extended performative space in which online self-presentation can shape offline orientations (Siegel et al., 2023; Zeng, 2023). Building on the premise that tourists may strategically manage impressions online and in co-present offline encounters, pro-environmental travel UGC engagement represents a distinctive mechanism because it turns an eco-conscious persona into a persistent and retrievable public record evaluated by imagined audiences beyond the immediate travel moment (Schoenebeck et al., 2016). In dramaturgical terms, once tourists publicly enact a moral identity through repeated engagement with pro-environmental travel content (e.g., liking, sharing, commenting, or posting), the performance becomes more durable and socially credibility, hence avoiding "context collapse" (Kini et al., 2022). As a result, UGC engagement can strengthen pro-environmental behavioral intention by increasing consistency pressures and the perceived reputational costs of discrepancy between one's displayed eco-conscious identity and subsequent offline intentions (Tang et al., 2024). Empirical evidence also suggests that active engagement with pro-environmental content enhances environmental awareness and identity alignment, thereby reinforcing individuals' intentions to adopt eco-friendly practices, particularly in socially networked tourism settings (Alam et al., 2023; Alsaad et al., 2023; Li, 2024). Accordingly, this discussion leads to the following hypothesis:

H3: Pro-environmental travel UGC engagement positively influences pro-environmental behavioral intention.

In dramaturgical terms, impression management motivation can translate into pro-environmental behavioral intention in tourism settings because tourists anticipate social evaluation and seek to maintain a favorable public image. However, the strength and consistency of this influence depend on whether pro-environmental conduct can be rendered visible to an imagined and persistent audience beyond the immediate travel encounter (Griskevicius et al., 2010; Tang et al., 2024). Many offline pro-environmental practices during travel are episodic, context-bound, and often evaluated only by transient co-present audiences (e.g., travel companions or service staff) (Dong et al., 2023). Consequently, even when tourists are motivated to manage impressions, the reputational payoff of offline pro-environmental action may remain limited if such actions are not reliably witnessed, remembered, or socially circulated.

Social media engagement alters this performative condition by transforming sustainability-related conduct into publicly evaluable symbols with high persistence and retrievability within a digital frontstage (Schoenebeck et al., 2016). Engagement with pro-environmental travel UGC (e.g., posting, sharing, or interacting with eco-travel content) increases the visibility, reach, and durability of one's eco-conscious persona, enabling it to be evaluated repeatedly

across time and contexts by imagined audiences (Han et al., 2022; Zhang et al., 2024). In this sense, social media functions as a stage setting that extends tourism from an episodic offline episode to a continuously observable identity performance(Siegel et al., 2023). As the audience becomes broader and more enduring, tourists with stronger impression management motivation are more likely to engage in pro-environmental travel UGC to secure social recognition and maintain a coherent public image. This sustained frontstage visibility, in turn, strengthens pro-environmental behavioral intention by increasing reputational incentives and heightening the salience of acting consistently with one's publicly displayed eco-conscious identity. Accordingly, this discussion leads to the following hypothesis:

H4: Pro-environmental travel UGC engagement mediates the relationship between impression management motivation and pro-environmental behavioral intention.
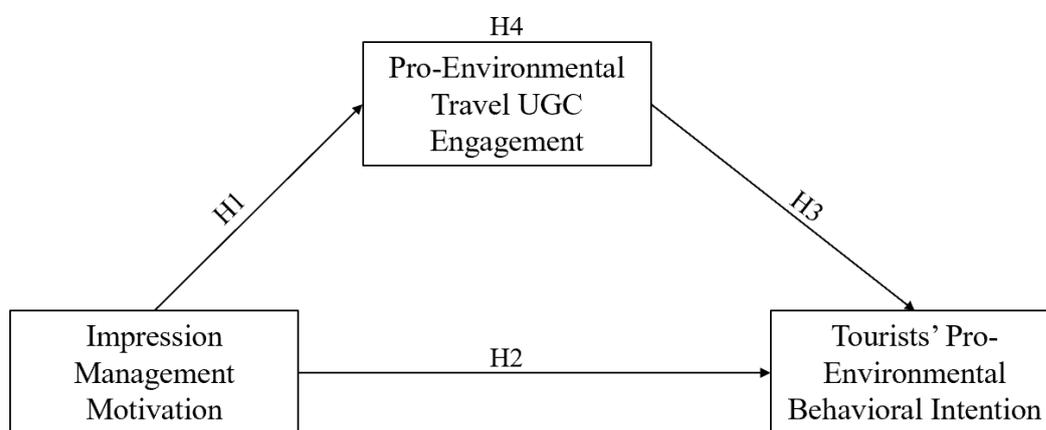
Figure 1 proposes the research model

Figure 1: Proposed research model

Research Methodology

Participants and Procedure

The research methodology was quantitative, based on an online questionnaire administered via wjx.cn, a widely used online survey platform in China that is frequently adopted in social media and tourism research. The study aimed to examine the mechanisms influencing Chinese tourists' pro-environmental travel UGC engagement and their subsequent pro-environmental behavioral intentions. To ensure respondent eligibility and alignment with the study context, two screening criteria were applied. First, participants were required to have traveled within China during the past 12 months. Second, they needed to have used social media platforms (e.g., Ctrip, RedNote, TikTok, WeChat) to browse or book tourism services online. Prior to full deployment, the questionnaire was reviewed and pilot-tested to confirm clarity of instructions and item wording and to identify potential data-quality issues.

Data collection was conducted in October 2023 using purposive sampling, a common approach in China-based studies of social media engagement, which often report sample sizes in the range of approximately 600–800 respondents (Cao et al., 2022; Sun et al., 2022; Yang et al., 2024). A total of 716 responses were obtained. After excluding 132 cases that failed to meet the screening requirements, 584 valid responses were retained for subsequent analysis. The final sample was primarily composed of adults aged 18–44 years (34.6% aged 18–24, 29.8% aged 25–34, and 23.5% aged 35–44). Female respondents accounted for 57.5% of the

sample, and 56.5% had completed or were pursuing a bachelor's degree. Regarding travel patterns, 46.4% reported traveling two to three times annually. In terms of social media usage for browsing or booking tourism services, 42.3% indicated spending between 30 minutes and two hours per day. These characteristics suggest that the sample represents active social media users with recent domestic travel experience in China, consistent with the research purpose and the proposed model tested in Figure 1.

Measures

Well-established scales grounded in extant literature were employed to measure all constructs in this study (Table 1). Pro-environmental travel UGC engagement was assessed using items adapted from Han et al. (2018) and Lim et al. (2015), while tourists' pro-environmental behavioral intention was measured using items adapted from Han et al. (2018) and Kiatkawsin and Han (2017). Impression management motivation was measured using an adapted scale from Li and Bai (2018), respectively. Unless otherwise specified, all items were measured on a five-point Likert scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree").

Table 1

Measurement items, sources, CRs, AVEs, and loadings

Construct	Item		Loading
Pro-environmental travel UGC engagement (PTUE) (Han et al., 2018; Lim et al., 2015) Cronbach's α=0.908 CR=0.927 AVE=0.646	PTUE1	I frequently visit social media platforms and see posts that related to pro-environmental travel behaviors.	0.864
	PTUE2	When I see pro-environmental travel related posts on social media platforms, I usually forward the posts to others, or make a comment.	0.830
	PTUE3	I shared pro-environmental travel related videos or photos on social media platforms.	0.783
	PTUE4	I interacted with other social media users by using pro-environmental travel related hashtags.	0.772
	PTUE5	I posted my feelings in real-time online conversation related to environmental issues in travel on social media platforms.	0.772
	PTUE6	When travelling, I usually post my feelings when I like/dislike others' travel behaviors relating to environment.	0.782
	PTUE7	I am emotionally connected to the online travel community which discusses pro-environmental behavior.	0.820
Tourists' pro-environmental behavioral intention (TPBI) (Han et al., 2018; Kiatkawsin & Han, 2017) Cronbach's α=0.905 CR=0.925 AVE=0.638	TPBI1	I would try to save water and electricity when travelling.	0.829
	TPBI2	I would buy "eco-" or "organic-" products when possible.	0.805
	TPBI3	I would try to learn about the recycling facilities and actions of the locals when travelling.	0.821
	TPBI4	I would try to dispose garbage properly if possible.	0.763
	TPBI5	I would try to protect local resources as much as I could when travelling.	0.785
	TPBI6	I would prefer to buy local products.	0.802
	TPBI7	I would buy products in eco-friendly packaging, when possible, i.e. avoid plastic shopping bags, plastic bottles and try to reuse bottles and bags.	0.785
	IMM1	I want to be respected and recognized by others.	0.842

Construct	Item		Loading
Impression management motivation (IMM) (Li & Bai, 2018) Cronbach's α=0.887 CR=0.914 AVE=0.639	IMM2	I want others to see my pro-environmental travel behaviors.	0.779
	IMM3	I am more mindful of how I behave in important situations.	0.800
	IMM4	I care about how I look in the minds of the people who matter.	0.794
	IMM5	I want to behave in a way that is consistent with being a social person.	0.798
	IMM6	If I receive recognition and approval from others in a task, I will put in even more effort.	0.781

Data Analysis and Results

Validity, Reliability, and Common Method Bias (CMB)

The data were analyzed using SmartPLS 4.0 with the PLS-SEM approach to evaluate the proposed relationships. The assessment followed established PLS-SEM guidelines and was conducted in two stages. First, the measurement model was examined for reliability and convergent validity by inspecting indicator loadings, composite reliability (CR), and average variance extracted (AVE). All indicators satisfied the recommended loading criterion (≥ 0.70), and the CR values for every construct exceeded 0.70, indicating adequate internal consistency. Convergent validity was further supported because all AVE values were above the 0.50 benchmark (Hair et al., 2017) (Table 1). Second, discriminant validity was evaluated using heterotrait–monotrait ratio (HTMT) criteria. Results indicated that all HTMT values were below 0.85, providing further evidence of discriminant validity (Henseler et al., 2015) (Table 2).

Common method bias (CMB) was assessed using both procedural and statistical remedies (Podsakoff et al., 2003). First, several procedural measures were implemented at the research design stage to reduce respondents' evaluation apprehension and minimize method-driven variance. Participation was voluntary, and respondents were assured of confidentiality and anonymity to encourage honest responses. In addition, to reduce the likelihood that participants could infer the hypothesized cause–effect relationships, the key constructs were separated and presented on different pages within the online questionnaire.

Second, statistical diagnostics were conducted to evaluate the presence of CMB. Following the full collinearity assessment approach proposed by Kock (2015), variance inflation factors (VIFs) were generated for all latent variables in the model. This method is considered a conservative and effective approach for detecting common method bias in PLS-SEM contexts (Kock, 2015). Consistent with the recommended criterion that VIF values should be ≤ 3.3 to indicate an absence of problematic CMB (Kock, 2015), the VIFs in this study ranged from 1.000 to 1.151, all below the threshold. Therefore, common method bias does not appear to be a significant concern in this research.

Table 2
HTMT results

	IMM	TPBI	PTUE
IMM			
TPBI	0.435		
PTUE	0.399	0.623	

[1] IMM=impression management motivation, PTUE=pro-environmental travel UGC engagement, TPBI=tourists' pro-environmental behavioral intention.

Hypotheses Testing
A non-parametric bootstrapping procedure was employed to test the significance of the structural paths. The results indicate that impression management motivation positively predicts pro-environmental behavioral intention (β = 0.217, t = 5.949, p < 0.001). In addition, impression management motivation has a significant positive effect on tourists' engagement with pro-environmental content (β = 0.362, t = 10.424, p < 0.001). Finally, tourists' engagement with pro-environmental content is positively associated with pro-environmental behavioral intention (β = 0.488, t = 14.129, p < 0.001). Collectively, these findings support the hypothesized direct relationships among the key constructs (Table 3/Figure 2).
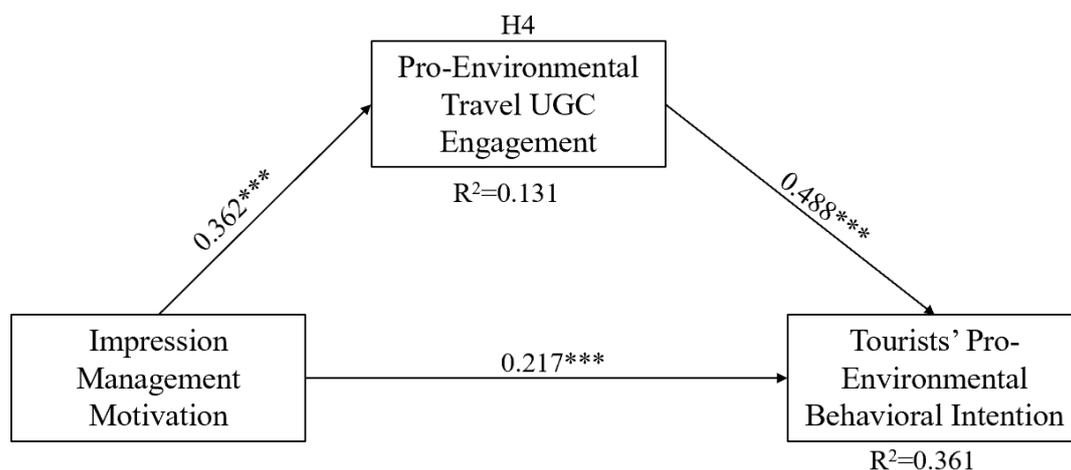

Figure 2: Results of hypotheses testing

Table 3
Hypotheses testing

Path	β	SD	t-value	p-value	Hypothesis
IMM -> PTUE	0.362	0.035	10.424	0.000	H1: Accepted
IMM -> TPBI	0.217	0.036	5.949	0.000	H2: Accepted
PTUE -> TPBI	0.488	0.035	14.129	0.000	H3: Accepted
IMM -> PTUE -> TPBI	0.177	0.020	8.723	0.000	H4: Accepted

[1] IMM=impression management motivation, PTUE=pro-environmental travel UGC engagement, TPBI=tourists' pro-environmental behavioral intention, SD=Standard deviation.

Discussion
Regarding H1, the findings indicate that impression management motivation is a salient driver of tourists' pro-environmental travel UGC engagement (β = 0.362, p < 0.001). It extends two-component model (Leary & Kowalski, 1990) to the domain of environmental activism. Rather

than motivated by purely altruistic environmental concern, the result suggests that pro-environmental engagement on social media can operate as a strategically useful form of moral impression construction in a digital frontstage. In the Chinese social media context—where sustainability narratives are increasingly visible and socially endorsed—engaging with pro-environmental travel content may provide reputational value and social approval cues (Sun et al., 2024), making it an efficient vehicle for projecting a desirable public image.

With respect to H3, the results show a positively significant effect ($\beta = 0.488$, $p < 0.001$), suggesting that online engagement is not merely expressive but meaningfully connected to offline-oriented intentions. This magnitude implies that the digital frontstage may constitute a powerful setting in which eco-conscious identities become salient and behaviorally consequential (Tang et al., 2024). When tourists repeatedly interact with pro-environmental travel content, their eco-conscious persona becomes more visible to imagined audiences and more continuously "on record," which can increase the psychological and social incentives to remain consistent with that public identity (Schoenebeck et al., 2016). In this sense, social media engagement may intensify the relevance of sustainability norms and heighten the motivation to act in ways that sustain a coherent moral image, thereby strengthening pro-environmental behavioral intention.

The direct effect in H2 further shows that impression management motivation predicts pro-environmental behavioral intention even beyond online engagement ($\beta = 0.217$, $p < 0.001$). This finding suggests that impression-driven pro-environmental intentions are not confined to social media; they can also be activated in offline tourism encounters where audiences are physically co-present and evaluation is immediate (Dong et al., 2023). In many travel settings, tourists' actions are socially observable to companions and service providers, and pro-environmental choices can signal responsibility and moral character in real time (Kim & Kim, 2024). Consequently, tourists with stronger impression management motivation may form stronger intentions to behave pro-environmentally to maintain face and avoid negative interpersonal judgments in co-present frontstage situations. The smaller coefficient relative to the UGC path, however, implies that offline impression management may be more episodic and situational, whereas digital self-presentation can exert more persistent influence.

Finally, the overall pattern provides support for H4, indicating that pro-environmental travel UGC engagement mediates the relationship between impression management motivation and pro-environmental behavioral intention, while a significant direct path remains. This configuration is consistent with partial mediation, implying two complementary impression-management routes: a direct route operating through co-present offline frontstages (H2), and an indirect route operating through digitally extended frontstages where audiences are imagined, larger, and evaluations are more persistent (H4). Theoretically, this helps clarify how dramaturgical dynamics function across online and offline settings: social media does not replace offline impression management, but it can amplify and stabilize impression-driven pro-environmental intentions by converting sustainability-related self-presentation into continuously observable and socially accountable identity performances.

Conclusion

Theoretical Implications

This study offers three major theoretical contributions to the literature on sustainable tourism, social media engagement, and impression management. First, this study advances existing knowledge by theorizing pro-environmental travel UGC engagement as a dramaturgical frontstage performance—a public moral enactment through which tourists construct and display environmentally responsible identities in front of an online audience. By applying dramaturgical theory to digital sustainability contexts, this study shifts the analytical focus from private moral cognition to public identity performance, revealing that tourists' online environmental expressions are not merely communicative acts but socially strategic performances shaped by impression management motives. This reframing extends dramaturgical theory into sustainable tourism and contributes a novel performance-based lens for understanding digital pro-environmental engagement (Tang et al., 2024).

Second, while impression management has been widely examined in organizational and interpersonal communication contexts, its role in driving sustainability-oriented UGC in tourism remains underexplored (Araújo, 2014; Blunden & Brodsky, 2024). This study demonstrates that impression management motivation is a fundamental antecedent of both pro-environmental travel UGC engagement and behavioral intention, highlighting that digital sustainability engagement is partly driven by self-presentational and reputational concerns rather than purely altruistic motives. By empirically validating this mechanism, the study challenges dominant rational–altruistic explanations of pro-environmental tourism behavior and introduces a self-presentational pathway into sustainability behavior research (Dong et al., 2023; Kim & Kim, 2024), thereby broadening the theoretical understanding of why tourists publicly perform green identities on social media.

Third, this study further contributes by demonstrating that pro-environmental travel UGC engagement mediates the relationship between impression management motivation and offline pro-environmental behavioral intention. This finding empirically supports the proposition that frontstage moral performance serves as a psychological and behavioral bridge between identity motives and real-world environmental intention (Siegel et al., 2023). This mediating mechanism clarifies how online moral self-presentation becomes internalized into offline behavioral intention, thereby advancing dramaturgical theory by empirically documenting the cyber–physical linkage between digital performance and behavioral outcomes in sustainability contexts.

Practical Implications

The study offers three key implications for practice. For destination marketers and tourism businesses, this study indicates that pro-environmental travel UGC functions as a public moral performance driven by impression management motives. Destination marketers should therefore design sustainability campaigns that provide tourists with highly shareable, identity-enhancing environmental narratives (Han et al., 2018). Instead of merely disseminating informational content, campaigns should emphasize symbolic value, moral visibility, and social recognition (e.g., digital eco-badges, "green traveler" labels, and social recognition boards) to activate tourists' self-presentational motives. Encouraging tourists to publicly display sustainable practices (e.g., reusable bottles, low-carbon transportation, and waste sorting) through branded hashtags and photo challenges can further strengthen

tourists' environmental identities and stimulate behavioral consistency between online performance and offline practice.

Second, platforms can enhance sustainable engagement by integrating sustainability-related templates, default hashtags, and green-content prompts into posting interfaces. Algorithmic recommendation systems may prioritize sustainability-themed UGC (Kang & Liu, 2019), thereby increasing its visibility and reinforcing pro-environmental performance norms. Such mechanisms can amplify moral signaling dynamics and transform individual performances into broader social norms. Finally, policymakers can incorporate social media–based environmental performance mechanisms into national tourism sustainability strategies. Collaborations with platforms to certify eco-friendly travelers and destinations can institutionalize public moral signaling and convert individual identity performances into collective sustainability cultures.

Limitations and Future Research
This study has several limitations that should be considered when interpreting the findings. First, the use of cross-sectional data constrains causal inference. Although the hypothesized directions are theory-driven, the observed associations may also reflect reverse or reciprocal relationships (e.g., pro-environmental intentions motivating subsequent UGC engagement) or unobserved confounders. Future research should adopt longitudinal, panel, or diary designs to establish temporal precedence and to examine how impression-driven engagement and pro-environmental intentions change over time. Experimental designs that manipulate audience salience, visibility cues, or reputational feedback would further strengthen causal claims.

Second, all variables were measured using self-reported questionnaires, which may be susceptible to social desirability and recall bias, particularly because pro-environmental conduct is morally valued (Sintov & Prescott, 2011; Zhu et al., 2024). Although common method bias was assessed, self-report designs may still inflate relationships. Future studies could triangulate survey measures with behavioral indicators and digital trace data (e.g., posting frequency, likes/shares, hashtag use), or employ multi-source designs such as peer ratings or platform analytics to improve measurement validity.

Third, the data were collected in China, which may limit the generalizability of the results to other cultural and platform contexts (Han et al., 2018). China's sociocultural environment and social media ecosystem may intensify face concerns and visibility-driven impression management, potentially strengthening the observed effects. Future research should replicate and compare the model across countries and platforms to identify boundary conditions and cultural contingencies, for example through cross-cultural comparative studies or multi-platform designs that capture different audience structures and affordances.

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