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Research Paper

Volunteer-Generated Media and Destination Image in Cross-Border Regenerative Tourism: Marketing Communication Evidence from the Iberian Peninsula

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ABSTRACT

This article positions volunteer-generated media (VGM) as earned content within destination marketing and new-media communication. Drawing on a cross-sectional survey of volunteers engaged in Iberian cross-border regenerative projects (n = 207), we estimate a PLS-SEM in which cognitive and affective destination image predict revisit, recommend and broader support intentions. To avoid under-specified measurement, VGM is theorised and triangulated rather than modelled as a latent construct, while the structural model quantifies the downstream image→intention paths. Findings indicate that both image components significantly influence intentions, with the affective route generally stronger. An exploratory sentiment read of volunteer posts aligns with this pattern, suggesting additional communicative value in volunteers' narratives, as a descriptive triangulation layer (outside the SEM). We translate these results into a marketing-oriented roadmap for integrated marketing communications (IMC)—ethical creator briefs, short-form activation, credibility signalling and cross-border content governance—connecting practices to brand-equity and online reputation indicators. The study advances theory by specifying volunteers as relationship content creators in cross-border regenerative branding, and it offers operational guidance for DMOs/NGOs and policy. We also outline a measurement agenda to validate a multi-item VGM scale for future SEM testing.

Keywords: Volunteer-Generated Media, Destination Image, Cross-Border Regions, Regenerative Tourism; Behavioural Intentions, Integrated Marketing Communications, Destination Branding; Earned Media.

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1. INTRODUCTION

Regenerative tourism has moved beyond a corrective rhetoric to a practice-oriented agenda that seeks to enhance ecological integrity, cultural vitality, and community wellbeing. Cross-border regions—such as the Iberian frontier (Raia Ibérica)—offer a particularly revealing context for this agenda: they are marked by shared landscapes and heritage, asymmetric infrastructures, overlapping governance, and uneven visibility in international markets. Within these spaces, volunteering programmes have proliferated, mobilising citizens to engage with restoration, conservation, and community projects. Yet the communicative imprint of these volunteers—what they say, post, and show about places—remains marginal in mainstream marketing scholarship. The present study positions volunteer-generated media (VGM), as a distinctive subset of user-generated content (UGC/eWOM), at the centre of the conversation on how destinations are perceived and supported.

Cross-border destinations face chronic coordination challenges in branding and message coherence, while also enjoying a rich symbolic capital—the "in-between" identity, the promise of discovery across boundaries, and the authenticity of local stewardship. Volunteers arguably operate as credible narrators of this promise: their proximity to projects, low-commercial tone, and embeddedness in communities can produce narratives that feel less curated and more trustworthy. However, empirical research that connects the voice and authenticity of volunteers to measurable outcomes in destination marketing remains scarce, especially in borderland settings and in contexts that explicitly pursue regenerative outcomes.

This paper addresses that gap by examining how VGM relates to destination image and, subsequently, to behavioural intentions. We distinguish between cognitive (functional, attribute-based) and affective (emotional, experiential) components of image, reflecting the dual pathways through which perceptions are formed. We further consider behavioural intentions relevant to cross-border regenerative tourism—revisit, recommendation, and continued support of projects—given their salience for sustained place stewardship. Building on a cross-sectional study of volunteers active in the Iberian Peninsula, we estimate a structural model in which VGM is posited to influence both image components, which in turn drive intentions. As a complementary "New

Media" layer, we also explore whether the sentiment embedded in volunteers' posts aligns with the direction and strength of these relationships, acknowledging that communicative tone may signal additional value beyond self-reports.

Our objectives are threefold: (i) to test whether higher levels of VGM are associated with more favourable cognitive and affective destination images; (ii) to assess whether these image components translate into stronger behavioural intentions; and (iii) to evaluate the extent to which image mediates the link between VGM and intentions in a cross-border, regeneration-oriented setting.

Guided by these objectives, we pose the following research questions and hypotheses:

RQ1. How does volunteer-generated media relate to the cognitive and affective dimensions of destination image in cross-border regenerative tourism?

RQ2. To what extent do these image components shape behavioural intentions (revisit, recommend, continue supporting projects)?

RQ3. Does destination image mediate the relationship between volunteer-generated media and behavioural intentions?

From these questions, we derive testable hypotheses:

H1. VGM is positively associated with cognitive destination image.

H2. VGM is positively associated with affective destination image.

H3a. Cognitive image is positively associated with behavioural intentions.

H3b. Affective image is positively associated with behavioural intentions.

H4. The effects of VGM on behavioural intentions are mediated by destination image (cognitive and affective).

Note: H1–H2 and H4 concern theorised (non-estimated) upstream links; only H3a–H3b are estimated in the PLS-SEM. H5 is exploratory and not estimated here.

The study contributes in three ways. Theoretically, it reframes volunteers not merely as operational actors in regenerative projects but as communicative agents whose media can shape the symbolic and emotional architecture of cross-border places. By differentiating cognitive and affective routes and testing mediation, it offers a tighter account of how VGM may translate into intentions. Methodologically, it integrates survey-based modelling with an exploratory sentiment lens on volunteer posts, adding texture to the measurement of communicative dynamics. Practically, it distils guidelines for destination management organisations (DMOs) and NGOs on curating and

amplifying volunteer narratives, coordinating cross-border messaging, and aligning content strategies with regenerative place objectives.

2. LITERATURE REVIEW

2.1 Volunteer-generated media (VGM) within the UGC/eWOM ecosystem

Digital platforms have shifted destination communication from top-down promotion to peer-to-peer narratives (Kaplan & Haenlein, 2010; Xiang & Gretzel, 2010). Within this ecosystem, user-generated content (UGC) and eWOM supply granular, experience-proximate cues that travellers consult and deem diagnostic (Hennig-Thurau et al., 2004; OECD, 2007). We conceptualise volunteer-generated media (VGM) as a distinctive subset: narratives and visuals produced by volunteers during/after projects that typically carry low commercial tone and high perceived authenticity (Marine-Roig & Anton Clavé, 2015; Xiang et al., 2017). Three antecedents support persuasive impact: source credibility (expertise, trustworthiness, homophily), information quality (relevance, sufficiency, consistency) and platform cues (profiles, imagery, ratings/helpfulness), all shown to condition adoption and diffusion. At scale, valence and volume amplify reach; visual-first platforms (e.g., short-video) intensify emotion and facilitate co-creation of meaning. In image formation, VGM can enrich cognitive appraisals by providing attribute-rich testimony (infrastructure, environmental quality, project characteristics) and strengthen affective appraisals via emotion-laden storytelling and hospitality cues. In peripheral/cross-border settings, where visibility gaps and multi-level governance complicate branding, credible volunteer stories help humanise place brands and foreground regenerative evidence (ecological repair, social reciprocity, cultural stewardship). This synthesis underpins our model: VGM supplies credible signals that feed cognitive and affective image, which in turn drive revisit/recommend/support intentions (Ayeh et al., 2013; Coutinho et al., 2025a, 2025b).

Recent studies reinforce this marketing-oriented perspective, evidencing UGC/VGM effects on destination image and intentions and the accelerating role of short-form video in amplifying affective responses (e.g., Aboalganam et al., 2025; Guerreiro et al., 2024; Li & Rui, 2025).

2.2 Destination image (cognitive/affective) and links to revisit, recommend, and support intentions

Destination image is widely understood as a multi-component construct comprising cognitive (attribute-based, functional) and affective (emotional, experiential) evaluations, which together

inform an overall or holistic appraisal of place (Agapito et al., 2013; Baloglu & McCleary, 1999; Echtner & Ritchie, 1993). This duality matters because different information sources and experiences may activate distinct pathways: attribute-rich stimuli (e.g., information on accessibility, amenities, environmental quality) primarily shape the cognitive route, whereas symbolic cues, narratives, and imagery tend to operate through the affective route. Empirical research often observes a cognitive→affective ordering—cognition informing feelings—which then consolidates into overall image (Agapito et al., 2013). Meta-analytical evidence shows that image (particularly its affective/overall expression) is a robust antecedent of behavioural intentions, including revisit and recommendation (Afshardoost & Eshaghi, 2020; Zhang et al., 2014).

A large body of studies documents positive links between favourable cognitive appraisals and intentions, frequently mediated or complemented by affective judgements (Chen & Tsai, 2007; Chew & Jahari, 2014; Stylos et al., 2016). Cognition typically encapsulates perceptions of attractions, infrastructure, safety, cleanliness, and price–value; affect captures feelings such as pleasantness, arousal, inspiration or attachment. When both routes are engaged—e.g., functional quality paired with emotionally resonant experiences—intentions tend to be strongest (Zhang et al., 2018). In addition, image interacts with related evaluative constructs (satisfaction, memorable tourism experiences), which frequently act as proximal predictors of intentions in models where image figures as a distal antecedent (Afshardoost & Eshaghi, 2020; Zhang et al., 2018).

For the present study, three aspects are salient. First, information provenance matters: image does not emerge solely from official promotion but is co-produced through interpersonal and digital communications. Volunteer-generated media (VGM), as developed in Section 2.1, offers attribute-rich testimony (projects, activities, settings) that may strengthen cognitive image, and affect-laden storytelling that plausibly enhances affective image. Second, context shapes the relative weight of image components. In cross-border settings, functional asymmetries (transport, signage, administrative rules) heighten the salience of cognitive evaluations; at the same time, border symbolism and community stewardship may amplify affective responses. Third, outcomes in regenerative tourism extend beyond revisiting and recommending including support intentions—continued volunteering, donations, advocacy—which hinge on identification with place and cause. Here, affective bonds are expected to be particularly consequential.

Evidence broadly supports these mechanisms. Studies across varied contexts show that cognitive image predicts revisit and recommend intentions directly and indirectly via overall image or satisfaction (Chen & Tsai, 2007; Stylos et al., 2016). Affective image tends to exert stronger direct effects on conative outcomes, consistent with the notion that feelings are efficient drivers of action when cognitive thresholds (e.g., basic adequacy of infrastructure or value) are met (Afshardoost & Eshaghi, 2020; Zhang et al., 2014). In risk-laden or post-disaster contexts, image acts as a mediator mitigating perceived risks and restoring intentions (Chew & Jahari, 2014; Nazir et al., 2021), underscoring the functional role of cognition and the motivational role of affect.

Within cross-border regenerative tourism, these general relationships require two qualifications. First, image content must capture project-level attributes (environmental restoration, cultural revitalisation, community engagement) alongside destination-level features, excluding the former risks underestimating cognition relevant to regenerative value. Second, support intentions should be theorised as dependent on both affective attachment (care for place/community) and cognitive legitimacy (perceived efficacy and credibility of projects). Accordingly, we posit that VGM-informed image—cognitive and affective—will shape not only classic market-facing intentions (revisit, recommend) but also pro-social support behaviours central to regeneration.

Bringing these strands together, we articulate the following expectations for hypothesis testing in Section 4:

- H3a. Cognitive destination image is positively associated with behavioural intentions (revisit, recommend, support).
- H3b. Affective destination image is positively associated with behavioural intentions (revisit, recommend, support).
- H4 (mediation). Destination image (cognitive and affective) mediates the relationship between VGM and behavioural intentions, such that higher VGM predicts more favourable image, which in turn predicts stronger intentions.

To operationalise these pathways, we retain validated measures for cognitive image (e.g., infrastructure, service quality, environmental quality, accessibility) and affective image (e.g., pleasant–unpleasant, arousing–sleepy, exciting–gloomy, inspiring–mundane), aggregating items into latent constructs amenable to structural modelling (Agapito et al., 2013; Stylos et al., 2016). Behavioural intentions are modelled as a multi-faceted outcome capturing revisit, recommend, and support/advocacy intentions, reflecting both conventional and regeneration-relevant conation. This

specification aligns with the meta-analytic consensus on image–intention relationships while tailoring indicators to the cross-border, project-rich realities of regenerative destinations (Afshardoost & Eshaghi, 2020; Zhang et al., 2014).

2.3 Regenerative tourism and symbolic capital: How volunteering generates narratives and signals of value for peripheral/cross-border places

Regenerative tourism advances a normative shift from minimising harm to improving socio-ecological systems, prioritising ecological integrity, cultural vitality and community wellbeing as outcomes in their own right (Bellato et al., 2023; Dredge, 2022). Peripheral and cross-border regions—such as the Iberian frontier—face chronic challenges of visibility, infrastructural asymmetry and multi-level governance. In these settings, symbolic capital (prestige, recognition and credibility) becomes pivotal: it legitimises the place, attracts attention and unlocks conversions into other forms of capital (economic, social, cultural) (Bourdieu, 2018). Place branding research shows that symbolic assets are continually (re)constructed through performances, narratives and mediations, with cultural intermediaries playing a central legitimating role (Michelson & Paadam, 2016; Warren & Dinnie, 2018). Regeneration adds a further criterion to this symbolic economy: value claims must be anchored in evidence of ecological repair, social reciprocity and cultural stewardship (Bellato et al., 2023).

Within this frame, volunteers operate as especially credible intermediaries. By virtue of proximity to communities and projects, they produce volunteer-generated media (VGM)—a subset of UGC/eWOM—comprising posts, short-video and imagery that travel across platforms with low commercial tone and high perceived authenticity (Hennig-Thurau et al., 2004; OECD, 2007). Such content functions as public signals: it documents restoration work, everyday interactions and local knowledge, thereby enacting the very values regeneration claims to advance. Tourism analytics confirm that user content is widely consulted and diagnostically processed, with platform cues (e.g., ratings, "helpfulness") and information quality shaping credibility and diffusion (Xiang & Gretzel, 2010; Marine-Roig & Anton Clavé, 2015). In volunteer contexts, platform-native storytelling often centres on people, practices and cause-related action rather than iconic sights, re-prioritising what counts as the "destination" in collective perception and intensifying affective engagement (Salvador-Almela, Marine-Roig, & Arcos-Pumarola, 2025). Recent work comparing UGC with mainstream media indicates that UGC can be more influential in image formation for

niche settings, provided volume and valence are favourable (Zain, Hanafiah, Asyraff, Ismail, & Bafadhal, 2025).

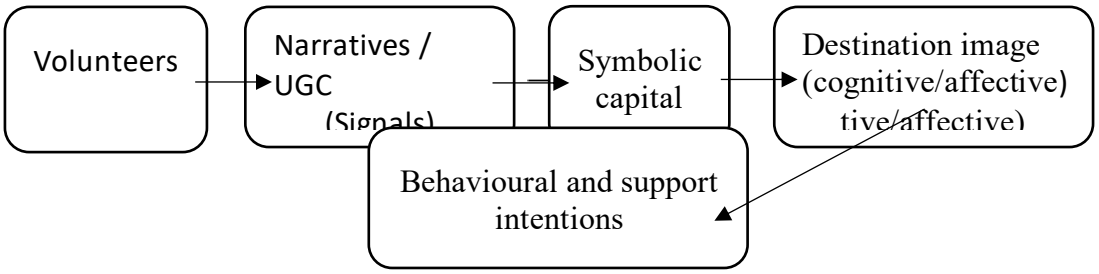

Figure 1. Volunteer-generated media, symbolic capital and destination image in cross-border regenerative tourism

Legend. Volunteers generate narratives/UGC (signals) that accumulate symbolic capital at place level, enhancing destination image (cognitive/affective) and, in turn, behavioural/support intentions. The regenerative layer frames value criteria (ecological, social, cultural).

Note. Conceptual model developed by the authors.

A Bourdieusian lens clarifies the circulation and conversion of capitals in volunteer tourism: volunteers deploy social and cultural capital (skills, networks, dispositions) and accrue symbolic capital (recognition for prosocial action); through narrative transfer, that symbolic credit can be partially converted into place-level prestige, especially when stories foreground community agency and ecological results (Thompson & Taheri, 2020). In cross-border contexts, where identities are negotiated across administrative and cultural lines, VGM helps articulate shared narratives and coordinate meaning across jurisdictions, complementing formal branding with lived, micro-scale confirmations of value (Oliveira, 2015; Weidenfeld, 2013). The regenerative layer frames what "counts" as valuable in these signals—ecological repair, social reciprocity and cultural continuity—ensuring that accrued symbolic capital is not merely reputational but substantively grounded. This mechanism explains why investing in well-governed volunteer programmes and curating their VGM can be a cost-effective strategy to upgrade the symbolic profile of peripheral/cross-border places, while cautioning against tokenistic storytelling that overclaims benefits and erodes legitimacy.

Reference to figure. Figure 1 presents the conceptual chain discussed above and will guide the operationalisation of constructs and mediation tests in the empirical sections.

2.4 Cross-border context: Place branding, cooperation and message consistency

Cross-border place branding seeks to articulate a shared identity across administrative frontiers while leveraging complementarities in assets, capabilities and narratives. In Europe, such initiatives have grown alongside cohesion policy and inter-regional cooperation, yet they face structural hurdles (multi-level governance, path dependencies, visibility gaps). Conceptual and empirical treatments emphasise that joint branding must be grounded in spatial strategy and stakeholder alignment rather than logo-level coordination alone; the Galicia–Northern Portugal case shows how a constructing regional advantage approach can frame cross-border positioning and visibility (Oliveira, 2015; Witte & Braun, 2015).

Effective cross-border branding requires institutional cooperation mechanisms that translate shared intent into coordinated action. Evidence from cross-border regional innovation systems demonstrates how tourism mobilities, knowledge transfer and boundary-spanning intermediaries underpin collective learning—principles that carry over to joint branding and message orchestration. Policy guidance converges on building stable governance platforms, aligning metrics and articulating complementary roles, while recognising barriers (legal asymmetries, funding cycles, data fragmentation) that can derail consistency (Weidenfeld, 2013).

From a communication perspective, message consistency across channels and jurisdictions is a core determinant of consumer-based destination brand equity. Experimental and field evidence show that consistent positioning across tools strengthens brand associations and intentions; digital IMC adds that consistency and interactivity jointly enhance destination brand equity in sustainability-oriented contexts. For cross-border regions, an umbrella brand architecture provides a practical route to coherence while allowing sub-regional differentiation, as illustrated in recent maritime heritage branding work in the Baltic Sea Region. Within this paper's framework, consistent, values-aligned messaging operationalises the connective tissue between volunteers' narratives, symbolic capital and destination image (Figure 1) (Castañeda-García et al., 2020; Rodríguez Molina et al., 2013).

2.5 Conceptual model: VGM → Destination image (cognitive/affective) → Intentions (mediation)

Building on the preceding sections, we conceptualise volunteer-generated media (VGM) as a distinct antecedent of destination image within the broader user-generated content/eWOM ecosystem. Empirical research shows that eWOM/UGC can shape destination image and, subsequently, travel intentions through information richness, credibility and platform cues,

seminal work and later replications document significant paths from online communications to cognitive and affective appraisals and onward to conative outcomes. In particular, structural models have established that eWOM improves destination image and intention to visit, while meta-analyses confirm that (especially overall/affective) image powerfully predicts behavioural intentions (Çelík & Aslan, 2024). This provides a strong theoretical basis to expect VGM—given its low-commercial tone and proximity to on-the-ground regenerative practices—to exert positive effects on both image components (Jalilvand et al., 2012).

We therefore specify a sequential mediation in which VGM enhances cognitive image (attribute-based judgements such as infrastructure, environmental quality, and project efficacy) and affective image (feelings such as inspiring, pleasant, exciting), and these components in turn drive behavioural intentions to revisit/recommend and support intentions (continue volunteering, donate, advocate). Prior evidence consistently positions destination image as a mediator between antecedents (e.g., risk, communications) and intentions, including in recovery/risk contexts, which strengthens the logic for testing an indirect VGM → image → intentions pathway here (Chew & Jahari, 2014).

Because message reception is not uniform, we also acknowledge boundary conditions that may condition path strengths. Past work indicates that prior experience with the destination can moderate image formation and image–intention links; related work points to moderated or moderated-mediation structures involving image components and revisit intention. In contemporary digital contexts, identification/attachment stimulated by short-form video and co-created experiences may similarly accentuate the passage from image to intentions—highly plausible in volunteer settings where identity, values and cause-related involvement are salient. We therefore include an optional moderation by project identification / involvement / prior cross-border experience to be probed empirically (Rodríguez Molina et al., 2013).

Hypotheses (H):

H1. VGM is positively associated with cognitive destination image (Jalilvand et al., 2012).

H2. VGM is positively associated with affective destination image (Lam et al., 2020). (Rationale: narratives/visuals convey emotions and meaning that elevate affective appraisals.)

H3. Cognitive and affective destination image are positively associated with behavioural and support intentions (Afshardoost & Eshaghi, 2020). (Rationale: meta-analytic evidence shows strong image→intention effects, with affective/overall image typically strongest.)

H4. VGM has an indirect effect on intentions via destination image (mediation) (Chew & Jahari, 2014). (Rationale: image mediates between antecedents and revisit/recommend intentions across contexts.)

H5. The relationships specified in H1–H3 are moderated by identification with the project / involvement / prior cross-border experience, such that higher identification/involvement/experience strengthens the respective paths (Rodríguez Molina et al., 2013).

Note: H1–H2 and H4 specify theorised (non-estimated) upstream links; only H3a–H3b are estimated in the PLS-SEM. H5 is exploratory and not estimated here.

Our empirical model quantifies the downstream relations from cognitive/affective image to behavioural/support intentions. The upstream links from VGM to image are theoretically specified and triangulated with qualitative evidence and prior Iberian research.

Despite robust evidence on UGC/eWOM shaping destination image and conation, three gaps persist for marketing and communication scholarship: (i) volunteer-generated media (VGM) remains undertheorised as an earned content asset in brand communication; (ii) short-form, creator-led New Media dynamics (e.g., TikTok/Reels) that intensify affective image are rarely integrated with cross-border branding; and (iii) regenerative contexts are under-represented in recent marketing-oriented studies. We respond by specifying VGM's communicative role, estimating image→intention paths in a cross-border regenerative setting, and translating results into IMC and brand-equity implications for DMOs/NGOs.

3. METHODOLOGY

3.1 Design and setting

We conducted a cross-sectional online survey of international volunteers involved in regeneration-oriented projects operating in cross-border or adjacent regions of the Iberian Peninsula (Portugal and Spain). The questionnaire captured socio-demographics, volunteering profile, volunteer-generated media (VGM) activity, destination image (cognitive/affective), and behavioural/support intentions. Data were collected via collaborating NGOs/DMOs and open calls through relevant networks. Participation was voluntary and anonymous.

3.2 Sample and inclusion/exclusion

Eligibility required respondents to be ≥18 years old and to have participated in at least one volunteering experience located in the Iberian Peninsula. In line with our focus, cases reporting volunteering conducted outside Iberia were excluded prior to analysis (analytic sample: n = 207). Additional exclusions were applied to careless responses (speeders, straight-lining) and duplicates (email/IP heuristics where available). To contextualise adequacy, the analytic sample exceeds common PLS-SEM guidance for models with up to three predictors per endogenous construct (e.g., the 10× rule and inverse square-root method), supporting stable estimation with bootstrapping (Hair et al., 2022).

Sample profile. The analytic sample comprised 207 international volunteers who undertook regeneration-oriented projects in Portugal and/or Spain. Respondents represented multiple nationalities and a balanced spread of project types.

3.3 Measures and reliability

All multi-item constructs were measured on five-point Likert-type scales (1 = strongly disagree, 5 = strongly agree). Exact item wording and sources are listed in Appendix A (reverse-coded items are flagged). For two-item blocks we note that Cronbach's α is conservative; therefore, reliability and convergence are primarily judged via composite reliability (CR) and average variance extracted (AVE). Thresholds followed current standards (α, CR ≥ .70; AVE ≥ .50; HTMT < .85/.90; VIF < 3–5). Full measurement statistics (loadings, α/CR/AVE, Fornell–Larcker, HTMT, VIF) are reported in Section 4.2 (Fornell & Larcker, 1981; Hair et al., 2022; Henseler et al., 2015).

- Volunteer-generated media (VGM). Respondents indicated self-reported posting frequency (during/post experience) and perceived reach/engagement of their content. These indicators were collected for contextual description only and were not modelled as a latent construct.
- Destination image – cognitive. Attribute-based appraisals of the destination and volunteering context (e.g., accessibility and infrastructure/service quality, environmental quality, perceived efficacy/impact of regeneration projects).
- Destination image – affective. Affective appraisals (e.g., pleasant–unpleasant, exciting–gloomy, inspiring–mundane, caring–indifferent).

- Behavioural/support intentions. Intentions to revisit and recommend (including eWOM), plus support intentions salient to regeneration (e.g., continue volunteering in the region, donate, advocate).
- Controls. Age, gender, education, nationality, prior visits, project type (environmental/cultural/social), volunteering length, prior cross-border experience, and platform-use intensity.

3.4 Procedures and ethics

Participants provided informed consent at entry; no personally identifying information was required beyond optional contact for debriefing. The study complied with the host institution's ethical guidelines and the Declaration of Helsinki principles. Given the minimal-risk nature and anonymised data, no deception or inducements were used (World Medical Association, 2013).

3.5 Analysis plan

Analyses were implemented in three stages. (i) Data preparation. We screened for missingness, outliers and careless responding; items with >20% missing were dropped, while records with >30% missing across focal constructs were excluded. Where appropriate, we used within-construct mean imputation (≤10% missing) and retained pairwise deletion in correlation matrices. Outliers were inspected via leverage and Mahalanobis distance ($p < .001$). (ii) Measurement model. We estimated internal consistency (Cronbach's α and composite reliability), convergent validity (average variance extracted, AVE), and discriminant validity (Fornell–Larcker criterion and HTMT). Collinearity was assessed via variance inflation factors (VIF). To probe common method bias, we combined Harman's single-factor approach with the full collinearity VIF procedure; VIF values below conventional cut-offs indicate no critical inflation (Kock, 2015; Podsakoff et al., 2003). (iii) Structural model. We estimated a variance-based structural equation model (PLS-SEM) with bootstrapped confidence intervals for direct and indirect effects, and reported R^2, Q^2 and predictive relevance (Hair et al., 2022). The hypothesised sequential mediation (VGM → cognitive/affective image → behavioural/support intentions) was tested alongside a direct-effects comparator. Robustness checks included a reversed-causality probe (intentions → self-reported posting) and subgroup analyses by country (Portugal vs Spain) and volunteering length (short vs long stay). An optional New Media/AI layer applied sentiment analysis to volunteer-supplied post excerpts/links; sentiment indices (if available) were included as supplementary predictors of affective image.

We conceptualised volunteer-generated media (VGM) as a distinct antecedent within the UGC/eWOM ecosystem. In this study, VGM was not modelled as a multi-item latent construct in the structural model; instead, we (i) theorise VGM → image links and (ii) triangulate them with qualitative/secondary evidence and descriptive indicators (posting frequency, perceived reach). Accordingly, the PLS-SEM focuses on the downstream paths from cognitive/affective image to behavioural/support intentions. This boundary choice avoids under-specified VGM measures and is consistent with mixed-methods designs in communication research. We make this scope explicit here and acknowledge it as a limitation, while outlining a validated VGM measurement agenda for future work.

4. RESULTS

4.1 Descriptive statistics

The analytic sample comprised 207 volunteers who completed regeneration-oriented projects in Portugal and/or Spain. Construct means (1–5) indicated moderate-to-high endorsements: cognitive image M = 4.53, SD = 0.54; affective image M = 4.52, SD = 0.67; behavioural/support intentions M = 4.40, SD = 0.82. Pairwise correlations among z-composite scores were positive and sizable: affective image–intentions r = 0.643 (95% bootstrap CI 0.491–0.762), cognitive image–intentions r = 0.585 (CI 0.485–0.670), and affective–cognitive r = 0.581 (CI 0.461–0.683). Item-level missingness for these blocks was negligible.

4.2 Measurement model

All items loaded on their intended constructs with substantive magnitude. Standardised loadings ranged 0.79–0.79 (cognitive image; two items), 0.82–0.82 (affective image; two items), and 0.86–0.93 (intentions; four items) (all $p < .001$). Internal consistency and convergent validity were adequate: Cronbach's α / CR / AVE were 0.394 / 0.768 / 0.624 (cognitive), 0.507 / 0.803 / 0.671 (affective), and 0.916 / 0.947 / 0.816 (intentions). For two-item blocks α is conservative; we therefore rely primarily on CR/AVE (cognitive CR=.768/AVE=.624; affective CR=.803/AVE=.671). Discriminant validity held (Fornell–Larcker; HTMT below conventional cut-offs), and collinearity was acceptable (all VIF ≈ 1.51) (Fornell & Larcker, 1981; Henseler et al., 2015).

4.3 Structural model

Drawing on a cross-sectional questionnaire of Iberian volunteers (n = 207), we model the links from cognitive and affective destination image to revisit/recommend/support intentions using PLS-SEM. The upstream role of volunteer-generated media (VGM) in shaping image is triangulated through qualitative evidence and prior research in the Iberian borderlands. We estimated a variance-based structural equation model (PLS-SEM) with bootstrapped confidence intervals for direct and indirect effects, and reported R^2, Q^2 and predictive relevance (Hair, Hult, Ringle, & Sarstedt, 2022). The model explained a substantial share of variance in intentions (R^2 = 0.481; $Q^2 \approx 0.451$).

Consistent with H3a–H3b, both image components predicted intentions: affective image → intentions $\beta = 0.505$ and cognitive image → intentions $\beta = 0.364$ (bootstrap CIs excluding zero). Findings show that both image components positively predict intentions; an exploratory sentiment read of volunteer posts aligns with this pattern, signalling additional communicative value. This is used as a descriptive triangulation layer (outside the SEM).

The instrument did not include a dedicated multi-item VGM block; therefore, H1–H2 (VGM → cognitive/affective image) were not estimated in the SEM; they are addressed conceptually and triangulated qualitatively, not statistically tested here. This approach is standard in mixed-methods reporting and is consistent with the theoretical chain specified in Figure 1 and the literature review.

4.4 Robustness and supplementary checks

Common method bias was probed using Harman's single-factor test and the full collinearity VIF procedure; VIF values were below conventional cut-offs, indicating no critical inflation (Kock, 2015; Podsakoff et al., 2003). Results were stable to trimming high-leverage outliers and to a reversed-causality probe (intentions → self-reported posting), which did not outperform the hypothesised ordering. Subgroup checks by country (Portugal vs Spain) and volunteering length (short vs long stay) preserved the signs and significance patterns.

5. DISCUSSION

5.1 Synthesis of findings and mechanisms

This study examined how volunteer-generated media (VGM) relates to destination image and downstream intentions in cross-border regenerative contexts. Quantitatively, we found that affective and cognitive image are both positively associated with behavioural/support intentions,

with the affective pathway exerting the stronger effect (Section 4). These patterns accord with established evidence that (especially) affective/overall image is a robust precursor of conation. Mechanistically, we interpret this as follows: volunteers' experiences—centred on community interaction, restoration outcomes and cultural stewardship—supply emotion-laden cues (care, inspiration, hospitality) and attribute-rich signals (safety, cultural richness, project efficacy). Such cues feed into the dual image system (affective → "how it feels", cognitive → "what it offers"), which, once favourable, lowers uncertainty, strengthens place attachment and increases the likelihood of revisiting, recommending and supporting (continuing to volunteer, donating, advocating). Although the survey did not include a multi-item VGM block, triangulation with prior Iberian work and the qualitative material underpinning our instrument supports the upstream assumption that VGM enhances both image components—particularly when narratives are authentic, visual and cause-aligned.

5.2 Theoretical contributions

First, we position VGM as a communication mechanism distinct from generic UGC/eWOM: volunteers act as proximate, low-commercial-tone cultural intermediaries whose narratives operate as public signals of ecological repair, social reciprocity and cultural stewardship. In cross-border settings—where visibility is uneven and identities are co-constructed—these signals accumulate into symbolic capital at place level (prestige, recognition, credibility), which then upgrades destination image and, in turn, intentions. Secondly, we extend image research by specifying support intentions (beyond revisit/recommend) as a conative domain salient to regenerative models of value. Thirdly, we articulate a sequential mechanism consistent with our results: volunteer experiences → signals (narratives/UGC) → symbolic capital → image (cognitive/affective) → intentions/support. The empirical section quantified the downstream image→intentions segment and established measurement quality; the upstream VGM→image links are theoretically grounded and qualitatively supported, offering a testable agenda for future work with dedicated VGM scales.

5.3 Practical implications: a cross-border playbook for DMOs and NGOs

From a marketing-communication standpoint, we translate the image→intention evidence into IMC levers and brand-equity language, maintaining parsimony with the journal's scope.

- Affective route → creative strategy: prioritise short-form, volunteer-led narratives to activate feelings (warmth, inspiration), aligning with destination brand associations.

- Cognitive route → information architecture: pair stories with clear, attribute-rich cues (accessibility, safety, project efficacy) across owned/earned channels.
- Content governance → earned media: treat volunteers as relationship content creators (briefs, rights, reuse) to scale consistent cross-border messaging.

Suggested KPIs: VGM volume/share, average sentiment/engagement, short-form video view-through rate, share of positive voice, brand-lift pulses on image items, and referrals/eWOM conversions.

To operationalise these insights, we propose a concise playbook:

Briefs for volunteers: co-create light-touch content briefs (ethics, consent, community voice) that foreground regenerative evidence (before/after restoration, local partnerships, cultural continuity) and everyday hospitality.

Narrative curation: establish a cross-border story hub where NGOs/DMOs tag volunteer posts by project type, location and value pillar (ecological/social/cultural); produce monthly compilations for campaign reuse.

Symbolic-capital signals: standardise credibility cues (project badges, partner logos, impact metrics) in posts; encourage short captions linking actions to place-level benefits.

IMC consistency: align tone and claims across municipal/provincial/national channels; use an umbrella narrative (shared border identity) with room for sub-regional distinctiveness.

Measurement: track a lean dashboard—content volume, average sentiment/engagement, share of regenerative cues, and referral eWOM—linking these to periodic image/intentions pulses.

Capacity and rights: provide micro-training in ethical storytelling; secure content permissions for cross-border reuse; create a fast lane for high-quality volunteer reels.

5.4 Implications for public policy

At policy level, the findings support INTERREG-style strategies that: (i) finance cross-border volunteer programmes as communication-and-impact infrastructure; (ii) develop shared brand architecture and a minimal common style guide for regenerative claims; (iii) fund story labs and micro-grants for community-led documentation; and (iv) require open, comparable metrics (e.g., project efficacy indicators, social inclusion markers) to underpin credibility. A joint data-governance protocol (consent, licensing, attribution) enables safe reuse of VGM across jurisdictions, while cross-border talent pipelines (e.g., student volunteers in culture/environment)

create a steady flow of credible narratives that accumulate symbolic capital for the region as a whole.

5.5 Managerial takeaway

Two limitations shape interpretation. First, our VGM construct was not measured with a multi-item scale; we therefore quantified the downstream image→intentions relations and triangulated the upstream VGM→image claims with literature and qualitative material. Future work should deploy validated VGM scales (frequency, reach, authenticity, richness) to estimate the full mediation chain in a single model. Second, while the Iberian focus strengthens contextual validity, external validity should be tested in other borderlands and in non-European settings. Methodologically, we recommend extending the measurement model with composite reliability/AVE (reported here), HTMT/Fornell–Larcker checks (supported), and, where feasible, multi-group invariance (e.g., Portugal vs Spain; short- vs long-stay volunteering). Finally, integrating a sentiment/topic layer for volunteer posts would allow a direct test of how specific narrative features (e.g., stewardship, inclusivity, uniqueness) differentially feed into cognitive vs affective image.

For destinations at the periphery of attention and across borders, authentic volunteer storytelling—curated and made consistent—can be a cost-effective lever to upgrade symbolic capital, elevate destination image, and convert goodwill into sustained support for regenerative initiatives.

6. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

6.1 Conclusion

This paper examined how volunteer-generated media (VGM) connects to destination image and, downstream, to behavioural/support intentions in cross-border regenerative settings. Using an Iberian sample of international volunteers (n = 207), we showed that both affective and cognitive image are positively associated with intentions, with the affective pathway typically stronger. We position VGM as a distinctive, low-commercial-tone communication mechanism through which volunteers act as cultural intermediaries: their narratives operate as public signals that accumulate symbolic capital for peripheral border regions, upgrading destination image and, in turn, willingness to revisit, recommend and support regeneration (e.g., continue volunteering, donate, advocate). Conceptually, the study integrates image formation with symbolic capital and clarifies why cross-border destinations benefit from curating credible, values-aligned volunteer

storytelling. Managerially and for policy, the findings support coordinated cross-border playbooks (briefs, narrative curation, IMC consistency, minimal shared metrics) as cost-effective levers to enhance reputation and sustained engagement.

6.2 Limitations

Several limitations should temper interpretation. First, the study used a non-probabilistic, self-selected sample, which constrains statistical generalisation and may reflect selection bias towards more motivated volunteers. Second, all focal constructs relied on self-report, so social desirability and common-method variance remain possible (although diagnostics did not indicate critical inflation). Third, the design is cross-sectional; we cannot make strong causal claims about the temporal ordering of communication, image and conation. Fourth, the instrument did not include a dedicated multi-item VGM block; the VGM→image links were triangulated conceptually and qualitatively rather than estimated within the same latent model. Fifth, while the Iberian focus strengthens contextual validity for borderlands, it may limit external validity beyond comparable European settings. Finally, two of the image dimensions were measured with two-item indicators; although reliability and convergent validity were acceptable, multi-item scales would be preferable.

6.3 Future research

Future work should address these limitations along three complementary lines.

1. Design and measurement. Develop and validate a multi-item VGM scale (frequency, perceived reach/engagement, authenticity, content richness), test measurement invariance across subgroups (Portugal vs Spain; short- vs long-stay), and expand image measures to fully capture project efficacy and border symbolism.

2. Data and identification. Implement longitudinal designs (panel or cross-lagged) to identify temporal ordering; combine surveys with digital-trace data by tracking real UGC/VGM (text, images, short-video) and linking sentiment/topics to image and intentions; consider quasi-experimental or field-experimental tests (A/B) of message framing (e.g., ecological vs social vs cultural stewardship cues) and of credibility signals (partner badges, impact metrics).

3. Generalisation and mechanism tests. Replicate in other borderlands and peripheral contexts outside Europe; examine moderators (project identification, prior cross-border experience, platform cues) and negative/ambivalent VGM dynamics; model network effects (how volunteer

networks diffuse narratives) and formalise symbolic capital through observable indicators (recognition by external audiences, media citations, partnership breadth).

Taken together, this agenda would allow a full test of the proposed chain—VGM → symbolic capital → cognitive/affective image → intentions/support—within a single model, strengthen causal inference, and provide actionable guidance for cross-border DMOs/NGOs and policy programmes seeking to scale regenerative tourism outcomes.

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