

A Systematic Review of the Persuasive Effects of Environmental Communication in Short Videos

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ABSTRACT

Short videos have become a central format in environmental communication, yet evidence on their persuasive effects on sustainable tourism behaviour remains fragmented. This study provides a systematic review of short-video persuasion in sustainable tourism contexts, synthesizing theoretical approaches, mechanisms, and boundary conditions. Following PRISMA guidelines, we searched 4 databases up to September 2025, identifying 2,151 records and retaining 12 peer-reviewed journal articles for analysis. The included studies were organized into three thematic clusters : (1) short-video content features and sustainable tourism intentions (7 studies, 58.3%), (2) social media influencer effects on destination persuasion (4 studies, 33.3%), and (3) audience evaluation of sustainable tourism information (4 studies, 33.3%), with some studies addressing. Methodologically, the corpus comprised cross-sectional questionnaire surveys (7/12, 58.3%), experimental designs (3/12, 25.0%), and content analytic approaches (2/12, 16.7%). Theoretically, studies drew primarily on Persuasion Theory, Stimulus-Organism-Response Theory, Technology Acceptance Model, and Source Credibility Theory, though actual behaviour was measured in only one study. Message design features, including narrative framing, emotional visual cues, and production aesthetics, demonstrated conditional positive effects on pro-environmental intentions, operating through both cognitive and affective pathways. Influencer credibility and audience–source congruence further moderated persuasive outcomes. These findings underscore the field's overreliance on intention-based outcomes and geographically concentrated samples (5/12, 41.7% from China), highlighting an unresolved intention–behaviour gap. Future research should prioritize longitudinal and cross-cultural designs, behavioural outcome measurement, and platform-level perspectives to advance both theoretical integration and practical communication strategies.

Keywords: *Short video, persuasion, sustainable communication, behavioural intention, systematic review.*

INTRODUCTION

Environmental communication scholars have employed diverse modalities, including text, images, audio, and video, to inform and motivate the public on sustainability issues (Geise & Xu, 2025). Accumulating evidence suggests that video is particularly persuasive in environmental contexts due to its immersive qualities, visual salience, and capacity to convey complex sustainability concepts, with immersive and 360-degree video formats shown to enhance credibility and pro-environmental intentions (McCormack et al., 2021; Oh et al., 2020). According to dual coding theory, individuals process visual and verbal information through complementary cognitive systems, and the integration of these channels in video formats enhances comprehension and memory retention (Paivio, 1990). Consequently, environmental messages conveyed through short videos have been shown to enhance

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audience engagement, immersion, and pro-environmental behavioural intentions (Chen & Cheng, 2023; Zheng et al., 2022; Zhu et al., 2025).

In recent years, short videos have become one of the most influential media formats in everyday life. Platforms such as TikTok have emerged as prominent spaces for environmental and climate communication, particularly among younger audiences, facilitating affective engagement and participatory climate discourse (Çakıcı et al., 2025; Hautea et al., 2021). TikTok has also been increasingly utilized by environmental campaigns and youth-driven ecological movements to raise public awareness and mobilize collective action (Ayad, 2024; Ben-Enukora et al., 2025). Exposure to environmental information on social media has been shown to positively influence pro-environmental attitudes and behavioural intentions, underscoring the potential of short-form video for motivating climate-related actions (Chen & Cheng, 2023; Liao, 2024). Therefore, understanding how climate information can be effectively communicated through short videos is critical for maximizing their persuasive impact.

Although sustainable tourist behaviour has become an important topic in tourism research, studies that systematically examine its formation from a communication and persuasion perspective remain limited (He et al., 2023). A recent systematic literature review by Li et al. (2024) indicates that existing research has predominantly focused on tourists' attitudes, behavioural intentions, and their antecedents, while paying comparatively little attention to actual behavioural outcomes and the role of communication processes. Meanwhile, some studies have approached sustainable tourism from the perspectives of tourism governance and information dissemination, suggesting that social media can support information acquisition, experience sharing, and destination management (Hussain et al., 2025; Li & Tay, 2024; Liao, 2024). However, this line of research tends to conceptualize social media primarily as an informational or managerial tool, with analytical attention centred on usage patterns and engagement characteristics, rather than systematically examining how specific communication content and persuasive mechanisms influence tourists' sustainable behavioural intentions and actual behaviours (Dubey et al., 2025; Fu et al., 2024; Syakirah et al., 2025). Consequently, while existing studies shed light on the structural determinants of sustainable tourist behaviour and the potential applications of social media, they remain insufficient to explain the persuasive mechanisms through which sustainable tourist behaviour is shaped in social media contexts (Li et al., 2024).

OBJECTIVE

To address the knowledge gap, this paper synthesizes existing research on the impact of short media on sustainable tourism behaviour. The core of this review focuses on studies that explore how the characteristics of short video content, dissemination strategies, and platform functions shape tourists' intentions and actual behaviours towards sustainability, rather than those that merely compare the effectiveness of social media with traditional information channels such as brochures, official websites, or mass media. This research orientation stems from the fact that social media has been deeply integrated into tourists' information search and travel decision-making processes (Liu & Yan, 2021; Salinero et al., 2025), shifting the academic focus from "whether social media is important in sustainable tourism" to "how to effectively promote environmentally friendly and socially responsible tourism behaviours through social media" (Chen & Cheng, 2023; Meng et al., 2023). Although studies comparing different media forms provide important insights into the overall value of social media in the dissemination of tourism sustainability, research that directly examines specific

communication content and persuasion mechanisms better responds to this core issue (Zheng et al., 2022; Zhu et al., 2025). Drawing on the literature on tourists' sustainable behaviour, sustainable tourism behaviour in this paper is defined as the actions and choices made by tourists during tourism decision-making and practice to promote environmental protection, social and cultural integrity, and local economic well-being (Li et al., 2024; Tong et al., 2024). Rather than merely cataloguing which theories have been used, this review seeks to clarify what these perspectives collectively reveal about how message design, source- and context-related factors, and cognitive and affective pathways shape sustainable tourism outcomes. Given the lack of a unified consensus on the classification of platform types and content forms in current research, this paper does not impose strict classification restrictions but focuses on studies that explicitly incorporate the context of short videos in their analytical frameworks. Thus, this study aims to systematically review the existing literature and answer the following research questions (RQs):

RQ1: What are the characteristics of short videos, samples, and research designs in the literature on short video-based persuasion of sustainable tourism behaviours?

RQ2: What common theoretical mechanisms and explanatory pathways emerge from research on short video-based persuasion related to sustainable tourism attitudes, intentions, and behaviours?

RQ3: What persuasive effects of short videos on sustainable tourism attitudes, intentions, and behaviours have been identified in the existing literature?

RQ4: What directions should future research on short video-based persuasion of sustainable tourism behaviours takes?

In response to these gaps, this review makes three main contributions. First, it synthesizes the key message features, persuasive mechanisms, and outcomes examined in prior research on short-video environmental communication in sustainable tourism contexts. Second, it identifies the source-related and contextual factors that condition persuasive effects in these contexts. Third, it integrates findings from the reviewed studies into a conceptual framework that links message design, cognitive and affective pathways, and moderating conditions to sustainable tourism attitudes, intentions, and behaviours.

METHODS

Data Sources and Search Strategy

Following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) model (Moher et al., 2009), we executed a systematic search across 4 primary databases: Web of Science, Communication & Mass Media Complete, Taylor & Francis, and Scopus. Google Scholar was used as a supplementary source to augment the initial search. To reduce the risk of publication bias, additional searches were conducted for relevant doctoral dissertations; however, only peer-reviewed journal articles were included in the final analysis.

As our review focuses on 3 main aspects, that is, short videos, sustainable tourism, and persuasive effects, we developed 3 sets of search strings (see Figure 1). Specifically, for short videos, we used the term short video along with other prominent short video platforms (Chen et al., 2024; McLean et al., 2024). For persuasive effects and sustainable behavioural outcomes, we drew on prior studies by Palm and Tims (2025) and Salinero et al. (2025) to develop the search strings. Consequently, the search strings were formulated as follows:

("short video" OR TikTok OR Douyin OR "YouTube Shorts" OR "Instagram reels" OR triller OR "snapchat spotlight" OR vine OR "Facebook shorts") AND (persua* OR impact OR effect OR outcome OR belief OR attitude OR behaviour OR behaviour OR intention OR knowledge) AND ("sustainable tourism" OR "responsible tourism" OR ecotourism OR "eco-tourism" OR "green travel" OR "low-carbon tourism" OR "pro-environmental behaviour" OR "environmentally responsible behaviour"). The search strings were applied to article titles, abstracts, and keywords within the selected databases. The same core search string was used across all databases; minor amendments were made only to accommodate database-specific syntax and field tags. The search encompassed publications available up until September 2025.

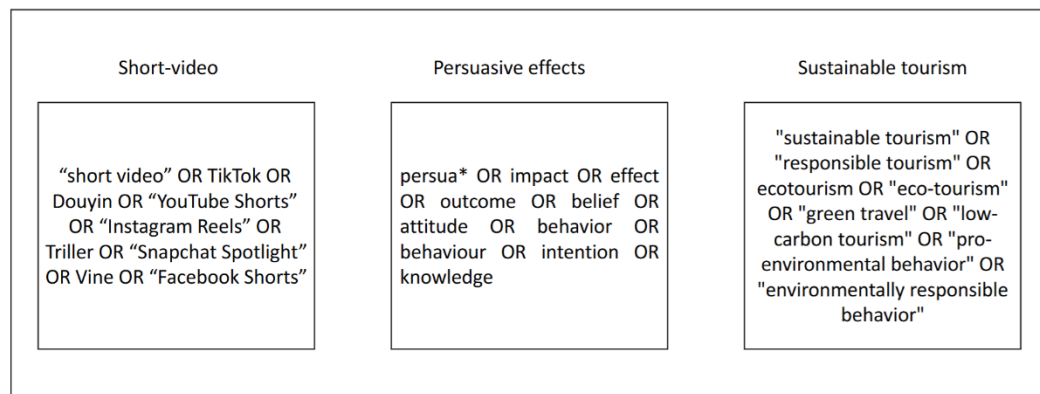


Figure 1: Search strings

Inclusion and Exclusion Criteria

Articles were included in our corpus if they (1) the research topic involved the field of sustainable tourism; (2) it examines short videos or short video platforms; (3) it is related to persuasion, that is, it intends to influence or change an individual's attitude, belief, intention or behaviour (O'Keefe & Jensen, 2009). We excluded the following types of literature: (1) research unrelated to sustainable tourism; (2) research that does not explore short videos (for example, research that only compares the impact of "whether short videos are provided" on persuasion results); (3) research unrelated to persuasion (for example, research that only examines users' participation behaviours in short videos); (4) literature not published in English; and (5) incomplete papers. Additionally, since this study aims to comprehensively review the persuasive effects of short videos in promoting sustainable tourism and pro-environmental behaviours, we did not exclude literature based on research methods or research subjects.

Screening Method

Following the initial search, we identified 2151 articles. After duplicate removal, 2079 articles remained. Adhering to the inclusion and exclusion criteria, two authors of this study jointly screened 9.97% of the articles (207/2079) to ensure consistency in the screening process. The remaining articles (n=1872) were evenly allocated between the 2 coders for further scrutiny. The results were discussed among all authors to ensure compliance with the inclusion and exclusion criteria. Ultimately, the final data set comprised 12 articles. Although the final corpus comprised only 12 studies, this is consistent with the emerging and narrowly defined nature of the field and the review's focused eligibility criteria. The review included only peer-reviewed journal articles that explicitly examined short-video persuasion in sustainable

tourism contexts. In systematic reviews, the value of the synthesis depends on the clarity of the review question, the transparency of the eligibility criteria, and the rigor of the search and screening process, rather than on a minimum number of included studies alone (Higgins et al., 2024; Yaffe et al., 2012). We consulted scholars in the field to verify that no relevant literature was missing from the data set. Figure 2 illustrates the PRISMA flow diagram representing the search and screening process.

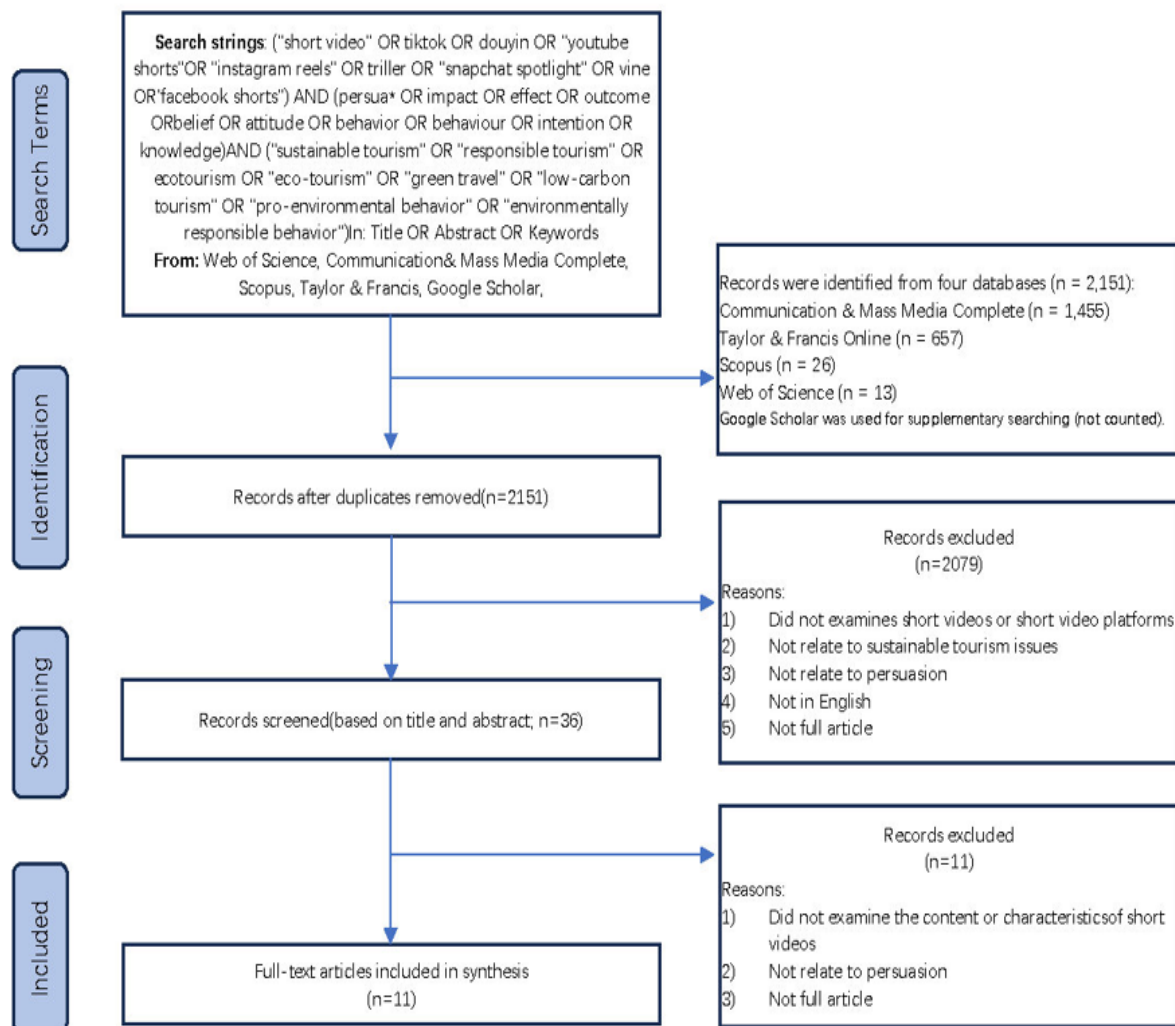


Figure 2: PRISMA flow diagram representing the search and screening process

Data Extraction and Synthesis

The first author conducted a comprehensive review of the final included literature and, in collaboration with the other authors, developed a code book. Coding decisions were based on previous review studies on sustainable tourism (Li et al., 2024) and aligned with the research questions guiding the present study.

We first coded basic identification information, including authorship, publication year, and research location. Next, we extracted core study characteristics relevant to the review focus, such as the type of short-video platform or social media used (e.g., TikTok, Instagram Reels, YouTube Shorts). To address RQ1, we coded research direction, sample size, demographic characteristics (age and education level), data collection methods, and study

duration. For RQ2, we documented the theoretical frameworks adopted. To answer RQ3, we coded design approaches, outcome variables, reported persuasion effects, and any examined mediating or moderating variables.

The first author coded all studies in the final dataset, and coding decisions were discussed with all authors to ensure consistency and accuracy with the original publications. Table 1 presents an overview of the paper’s study characteristics. Table 2 provides the pPersuasive effects and theories examined in the papers.

Table 1: Study characteristics of the papers

No.	Author	Sustainability Domain	Location	Sample	Data Collection
1	Bou Aragones et al. (2025)	Sustainable tourism	Online (Prolific)	N=220 ; Adults 18+ recruited via Prolific	Online survey experiment (between-subjects)
2	Chen and Cheng (2023)	Low-carbon tourism	China	N=786 valid (1,070 collected) Respondents who watched environment-friendly short videos	Questionnaire survey (online)
3	Fu et al. (2024)	Low-carbon / dual carbon	China (multiple regions/cities)	N=500 ; Adult residents in China (Credamo panel; stratified quota)	Online survey (Credamo)
4	Huber et al. (2022)	Environmental sustainability communication	(TikTok platform)	N=242 videos ; Eco-influencer TikTok videos	Content analysis of TikTok videos
5	Hussain et al. (2025)	Sustainable travel behaviour	China Dalian City	N=242 ; Chinese tourists who viewed SMI travel content (Bilibili/Douyin/WeChat/Weibo)	Questionnaire survey
6	Hysa et al. (2022)	Sustainable tourism recovery; urban/smart tourism management	Poland	271 respondents (balanced across generations) Tourists from generations BB, X, Y, Z; 44.6% men, 55.4% women	Questionnaire survey
7	Moskell and Turner (2022)	Environmental beliefs, attitudes, norms, and behavioural intentions	United States	N=427 ; 2017 online experimental survey via Qualtrics Research Services	Experimental design
8	Nurbaiti (2024)	Ecotourism & nature conservation	Indonesia (domestic tourism; top hashtags centered on Java and Bali)	50 videos (10 hashtags × 5 videos) ; TikTok videos under top Indonesian domestic tourism hashtags	Content analysis (tourism product quality dimensions)

9	Sharma and Arora (2023)	Ecotourism	India (multiple states)	N=415 valid (445 responses) ; Instagram Reels users in India	Questionnaire survey (purposive sampling)
10	Sharma and Arora (2025)	Ecotourism	India (multiple states)	N=374 valid (403 respondents) ; YouTube Shorts users in India	Questionnaire survey
11	Xue et al. (2024)	Sustainable tourism / eco-conscious travel	China	N=506 ; Chinese Gen Z respondents	Structured questionnaire (mixed methods)
12	Zheng et al. (2022)	Environmental protection / low-carbon	China	N=295 (356 collected) ; Social media users; pretest with university students	Experiment + questionnaire (online)

Table 2: Persuasive effects and theories examined in the papers

No.	Author	Theories	Sustainability Domain	Goal
1	Bou Aragones et al. (2025)	Influencer marketing & The Source Credibility Theory	Sustainable tourism	Test how influencer type affects sustainable destination choices and whether eco-consciousness moderates
2	Chen & Cheng (2023)	Communicative ecology theory; The stimulus-organism-response (SOR) theory; The cognitive appraisal theory	Low-carbon tourism	Examine how environment-friendly short video experience influences low-carbon tourism intention via cognitive and emotional factors
3	Fu et al. (2024)	Cognitive mediation model (CMM)	Low-carbon / dual carbon	Assess how attention to different media types affects dual-carbon knowledge and whether effects vary by environmental concern
4	Huber et al. (2022)	N/A	Environmental sustainability communication	Analyse how eco-influencers communicate sustainability on TikTok and how content features relate to engagement
5	Hussain et al. (2025)	Persuasion theory; Stimulus-Organism-Response (SOR) Theory	Sustainable travel behaviour	Test SMI influence on sustainable travel behaviour via inspiration and involvement
6	Hysa, B., Zdonek, I., & Karasek, A. (2022)	N/A	Sustainable tourism recovery; urban/smart tourism management	Identify how tourists share travel experiences on social media to support sustainable tourism recovery and city promotion; test differences by generation and gender
7	Moskell & Turner (2022)	Theory of Planned Behavior	Environmental beliefs, attitudes, norms, and behavioral intentions	Test whether a short video can shift environmental beliefs, attitudes, norms, and behavioral intentions

8	Nurbaiti (2024)	Uses and Gratifications Theory; Social Influence Theory; Electronic Word of Mouth (eWOM)	Ecotourism	Examine how TikTok engagement and hashtag features promote domestic ecotourism visibility and user interaction.
9	Sharma & Arora (2023)	Motivated Consumer Innovativeness (MCI); Technology Acceptance	Ecotourism	Examine IAM constructs and intentions to use YouTube Shorts for ecotourism selection
10	Sharma & Arora (2025)	Information Adoption Model (IAM)	Ecotourism	Examine IAM constructs and intentions to use YouTube Shorts for ecotourism selection
11	Xue et al. (2024)	Social learning theory; source credibility; cultivation theory	Sustainable tourism / eco-conscious travel	Assess how short videos influence Gen Z travel intentions and environmental awareness
12	Zheng et al. (2022)	Immersion theory; social influence theory	Environmental protection / low-carbon	Test how message type and social metrics in short videos affect environmental protection intentions

RESULTS

Current research on sustainable tourism communication based on digital media mainly focuses on three thematic clusters: (1) The influence of short video content features on the audience's sustainable tourism-related intentions (e.g., Zheng et al. (2022)) on the impact of narrative and non-narrative short videos on environmental protection willingness, 7/12, 58.3%); (2) Influences of social media influencers on sustainable tourism destination persuasion, exploring how the type, credibility, and persuasiveness of social media influencers affect the audience's sustainable tourism attitudes and behavioural choices, 4/12, 33.3% (Bou Aragones et al., 2025; Huber et al., 2022; Hussain et al., 2025; Xue et al., 2024); (3) How audiences evaluate and adopt sustainable tourism information in digital media, such as information quality, source credibility, platform usability and usefulness, 4/12, 33.3% (Hussain et al., 2025; Sharma & Arora, 2023, 2025; Xue et al., 2024). Some studies cover multiple themes; thus, the total proportion exceeds 100%.

Study Characteristics

The key characteristics of the 12 included studies are summarized in Table 1. In terms of research methods, the included studies show a trend of methodological concentration. The vast majority of the studies (7 out of 12, 58.3.0%) employed cross-sectional questionnaire surveys and mainly used structural equation modelling or partial least squares structural equation modelling for data analysis (e.g., (Chen & Cheng, 2023; Fu et al., 2024; Hussain et al., 2025; Sharma & Arora, 2023, 2025). Three studies (25.0%) adopted experimental methods, using between-group designs to test the effects of specific video content or information types (Bou Aragones et al., 2025; Zheng et al., 2022). In contrast, only two studies (16.7%) utilized content analysis, focusing on the characteristics and interactions of sustainable tourism-related content on short-video platforms (Huber et al., 2022; Li & Tay, 2024). Overall, existing

research is concentrated on survey- and experiment-based designs, while platform-level studies of content ecology remain limited.

In terms of sample characteristics, the research is highly concentrated geographically in specific national contexts. Among them, studies based on Chinese samples are the most numerous (5 studies, 41.7%) (Chen & Cheng, 2023; Fu et al., 2024; Hussain et al., 2025; Xue et al., 2024; Zheng et al., 2022), while the remaining studies are from India (2 studies; Sharma & Arora, 2023, 2025), the United States (Moskell & Turner, 2022), Poland (Hysa et al., 2022), and Indonesia (Nurbaiti, 2024). Only one study (Bou Aragones et al., 2025) recruited participants through an international online platform (Prolific) without specifying a particular national background. It is also worth noting that one study (Huber et al., 2022) employed content analysis of TikTok videos rather than audience surveys and thus does not have a specific geographic sample. In terms of audience composition, the samples generally show a tendency towards being young and highly educated, mainly obtained through online questionnaire platforms or social media channels, resulting in an overrepresentation of Generation Z and digital natives, indicating limited demographic diversity in the current evidence base.

There are significant differences among studies in terms of operationalization of concepts. First, the measurement of the core dependent variable "sustainable tourism impact" varies: some focus on the intention of low-carbon tourism behaviour (Chen & Cheng, 2023), some measure the willingness to visit sustainable or ecotourism destinations (Bou Aragones et al., 2025; Sharma & Arora, 2023, 2025; Xue et al., 2024), others pay attention to environmental protection willingness (Zheng et al., 2022), environmental knowledge (Fu et al., 2024), or broader sustainable travel behaviour (Hussain et al., 2025; Moskell & Turner, 2022). This lack of uniformity in concept operationalization hinders direct comparison of research results and theoretical integration. Second, the definition of the key independent variable "short videos" is rather vague. Most studies do not clearly specify the exact duration of the videos, production standards, or content control details (Li et al., 2024), which affects the precision of experimental stimuli and the reproducibility of results.

Theories

An overview of the diverse theoretical frameworks examined in the included studies is provided in Table 2, showing that although these studies draw on different theories, they converge around several recurring explanatory mechanisms underlying persuasive effects. From a theoretical perspective, the majority of the included studies explicitly stated their theoretical foundations ($n = 10$), with the relevant theories mainly drawn from traditional persuasion research and technology adoption research fields.

Most studies employed well-established frameworks to explain behavioural intention and communication effects. Theory of Planned Behaviour (TPB) was used to analyse environmentally related beliefs, norms, and intended behaviour (Moskell & Turner, 2022). For platform engagement and tourism communication outcomes, Uses and Gratifications Theory (UGT), Social Influence Theory, and eWOM-related logic were applied (Nurbaiti, 2024), while immersion-based and social-influence mechanisms were used to explain engagement-related effects in short-video contexts (Zheng et al., 2022). In technology and information adoption research, Motivated Consumer Innovativeness and the Technology Acceptance Model were used to explain acceptance and behavioural intention toward short-video platforms (Sharma & Arora, 2023), and the Information Adoption Model explained intention to use short-video information for destination selection (Sharma & Arora, 2025).

Influencer-focused studies drew on source credibility and influencer-marketing perspectives (Bou Aragones et al., 2025), as well as persuasion-based explanations of influencer impact centred on social media influencers (SMIs) (Hussain et al., 2025). Additional media-effect and learning lenses, including social learning and cultivation theory alongside source credibility, were also used to explain short-video influence on sustainable tourism-related outcomes (Xue et al., 2024). Regarding cognitive-emotional mechanisms, the Cognitive Mediation Model explained how media exposure relates to environmental knowledge and intention (Fu et al., 2024), whereas Communicative Ecology Theory combined with SOR and Cognitive Appraisal Theory was used to model stimulus-to-response pathways through cognitive and affective processes (Chen & Cheng, 2023).

Collectively, these frameworks covered key explanatory variables such as social norms, perceived usefulness, source credibility, immersion, information elaboration, and other cognitive–affective factors. In contrast, two studies did not explicitly state a named theoretical framework (Huber et al., 2022; Hysa et al., 2022), suggesting uneven theoretical grounding in this field. Overall, although the included studies draw on diverse theoretical frameworks, they converge around several shared explanatory pathways, particularly those involving persuasion and credibility, social influence and immersion, cognitive processing, and technology or information adoption.

Persuasive Effects of Short-Video Message Design on Sustainable Tourism Outcomes

The reviewed studies primarily examined how short videos influence sustainable tourism through psychological and behavioural outcomes. The most frequently measured outcome was behavioural intention (e.g., destination choice, low-carbon travel intent, platform adoption intent), assessed in 7 of the 12 studies (58.3%) (Bou Aragones et al., 2025; Chen & Cheng, 2023; Moskell & Turner, 2022; Sharma & Arora, 2023, 2025; Xue et al., 2024; Zheng et al., 2022). Changes in attitudes and beliefs (e.g., environmental awareness, perceived responsibility) were also commonly reported (6/12, 50.0%) (Chen & Cheng, 2023; Hussain et al., 2025; Moskell & Turner, 2022; Sharma & Arora, 2023; Xue et al., 2024; Zheng et al., 2022). In contrast, direct measurement of sustainability knowledge was less common (2/12, 16.7%) (Fu et al., 2024; Moskell & Turner, 2022), and only one study (8.3%) incorporated observable behavioural metrics (Hussain et al., 2025).

Across the included studies, outcome measures were more often related to persuasive precursors to action than to knowledge acquisition or verified behaviour change. Notably, only 1 of the 12 studies directly assessed actual sustainable tourism behaviours. While attitudes and intentions are established antecedents of behaviour (Ajzen, 1991; Fishbein & Ajzen, 2011), the well-documented intention-behavior gap in sustainable tourism contexts (Viglia & Acuti, 2022; Wut et al., 2023) suggests that positive changes in these precursors do not guarantee corresponding behavioural change. Consequently, the extent to which the persuasive effects observed in these studies translate into real-world sustainable tourism practices remains an open question.

Narrative and Video Appeal Techniques

The current research explores various short video narrative and attractiveness design techniques aimed at enhancing persuasive effects. These techniques can be categorized into three types: Firstly, in terms of narrative structure, the research mainly contrasts the effects of narrative and informational frameworks (Zheng et al., 2022). Secondly, in terms of visual and emotional appeal, scholars have tested specific strategies such as "cute" visual design (Xu

et al., 2025) and the differential effects of image-based versus text-based presentation formats (Oltra et al., 2025). Finally, at the overall style and production level, the research has identified the importance of stylistic cues such as visual, musical, and cultural elements, as well as editing features like video duration, scene transitions, subtitles, and background music (Li & Tay, 2024).

Overall, these techniques demonstrate positive but conditional persuasive effects. Narrative content was found to indirectly promote pro-environmental intentions primarily by evoking a stronger sense of immersion, whereas non-narrative content activated perceived social influence as an alternative persuasion pathway (Zheng et al., 2022). At the technological level, spatial presence — the sense of immersion generated while watching short videos — has been shown to significantly stimulate low-carbon tourism behavioural intention (Chen & Cheng, 2023). Meanwhile, content quality characteristics such as argument quality and source credibility serve as key determinants shaping audiences' travel intentions and environmental awareness (Xue et al., 2024).

Moderators and Mediators

Given that existing research mainly examines the persuasive effect of short videos based on behavioural intentions, the underlying mechanisms and effective boundaries have become the key to understanding the communication effectiveness. Among the 12 included studies, 8 explored moderating or mediating variables (66.7%), aiming to reveal "when" and "how" the persuasive effect takes place.

At the level of moderating variables, the research found that the effect is constrained by multiple boundary conditions. The existing tendencies of the audience are the core factors. For instance, individuals with high environmental awareness are more likely to be persuaded by micro-influencers, reflecting the mechanism of value alignment (Bou Aragones et al., 2025); similarly, the persuasive effect of short videos on dual-carbon knowledge is more pronounced among audiences with higher environmental concern (Fu et al., 2024). Demographic characteristics also emerge as boundary conditions: gender moderates the influence of short video content on travel decisions, with female audiences showing greater susceptibility (Xue et al., 2024), and generational differences further shape how tourists engage with and respond to social media content (Hysa et al., 2022). Additionally, platform-level cues such as video play counts significantly moderate persuasive outcomes, with high-volume videos generating stronger pro-environmental willingness (Zheng et al., 2022). Notably, perceived usefulness does not show a stable effect on attitude formation in the context of short video platforms (Sharma & Arora, 2023).

At the level of mediating variables, five studies have explored this area, though the complete picture of the psychological mechanisms remains to be clarified. The existing evidence points to a dual-path model of emotion and cognition. The emotional path drives intention by evoking empathy for nature and a sense of environmental responsibility (Chen & Cheng, 2023) or by creating immersion experience and social influence (Zheng et al., 2022). The cognitive path involves attitude formation (Sharma & Arora, 2023), cognitive elaboration and interpersonal communication (Fu et al., 2024), and inspiration and involvement in sustainable travel practices (Hussain et al., 2025). These findings suggest that effective persuasion requires the coordinated mobilization of the audience's emotional responses and cognitive evaluations.

Overall, existing research has begun to map the complexity and conditionality of short-video persuasion in sustainable tourism, revealing that persuasive effects vary substantially depending on audience predispositions, content design features, and platform-level cues. At the level of moderating variables, individual characteristics such as environmental awareness (Bou Aragones et al., 2025), environmental concern (Fu et al., 2024), gender, and generational differences (Hysa et al., 2022; Xue et al., 2024) have been identified as key boundary conditions, alongside platform cues such as video play counts (Zheng et al., 2022). At the level of mediating variables, a dual-path model of emotion and cognition has emerged, with empathy, environmental responsibility, and immersion experience constituting the emotional pathway (Chen & Cheng, 2023; Zheng et al., 2022), and attitude formation, cognitive elaboration, and inspiration representing the cognitive pathway (Fu et al., 2024; Hussain et al., 2025; Sharma & Arora, 2023).

DISCUSSION

Principal Findings

This systematic review synthesized 12 empirical studies examining the persuasive effects of short-video content on sustainable tourism communication. Three principal findings emerge from the evidence base.

First, short-video content demonstrates generally positive effects on sustainable tourism-related behavioural intentions. Across 7 of the 12 studies (58.3%), short videos were found to significantly enhance audiences' willingness to engage in sustainable tourism behaviours, including low-carbon travel choices (Chen & Cheng, 2023; Zheng et al., 2022) and eco-conscious destination selection (Bou Aragones et al., 2025; Sharma & Arora, 2023, 2025; Xue et al., 2024) and sustainable travel behaviour (Hussain et al., 2025). This pattern confirms that short-video platforms (e.g., TikTok, Douyin, Instagram Reels, YouTube Shorts) have become a meaningful channel for pro-environmental persuasion in the tourism domain (Chen & Cheng, 2023; He et al., 2023).

Second, the field is theoretically grounded primarily in persuasion research and technology adoption frameworks (Li et al., 2024). 10 of the 12 studies explicitly stated their theoretical foundations, which together converge around recurring explanatory pathways involving persuasion and credibility, social influence and immersion, cognitive processing, and technology or information adoption. These pathways inform the conceptual framework developed in this review, as illustrated in Figure 3. However, the predominance of questionnaire-based survey designs (6/12, 50.0%) and experimental designs (3/12, 25.0%) indicates that the current evidence primarily captures individual-level perceptions and persuasive responses, while offering less insight into broader communication processes and platform-level dynamics. Combined with the near-exclusive reliance on behavioural intention rather than actual behaviour, with only one study measuring observable behavioural outcomes (Hussain et al., 2025), this represents a critical gap between measured constructs and real-world sustainability impact (Li et al., 2024).

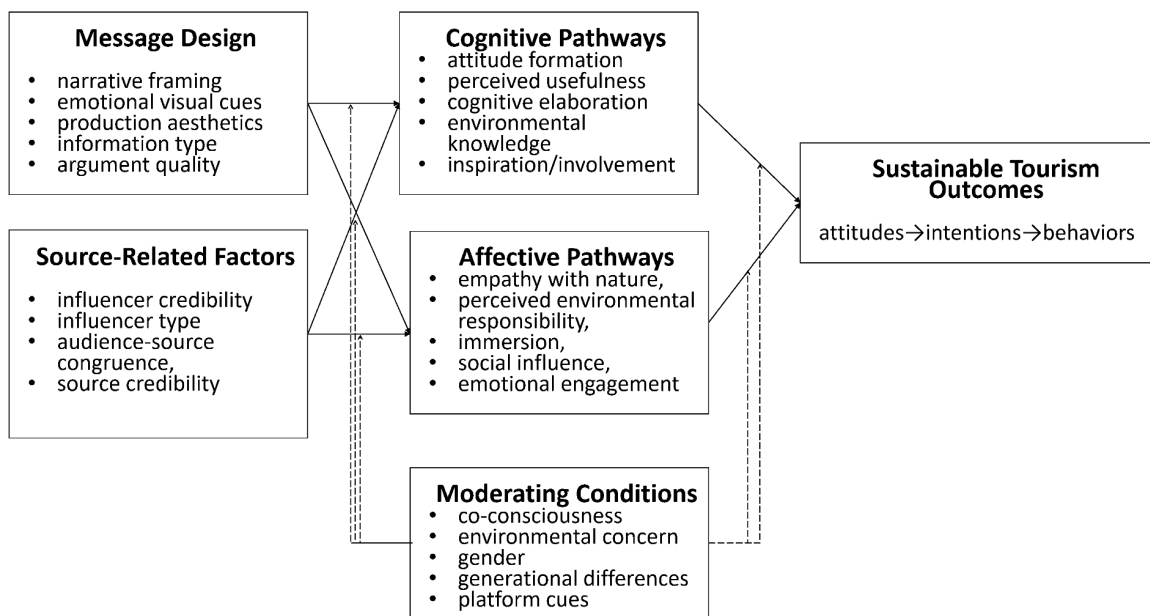


Figure 3: Conceptual framework of short-video persuasion in sustainable tourism

Third, the research landscape is geographically and demographically concentrated. Five of the 12 studies (41.7%) were conducted in China (Chen & Cheng, 2023; Fu et al., 2024; Hussain et al., 2025; Xue et al., 2024; Zheng et al., 2022), with samples skewed toward young, educated, digitally-native populations, as evidenced by the predominance of Gen Z and university student samples across studies (Xue et al., 2024; Zheng et al., 2022). This geographic and demographic concentration constrains the generalizability of current findings to broader global and intergenerational contexts, given that generational differences in social media engagement and sustainable tourism behaviour have been shown to be substantial (Hysa et al., 2022), and that only one study (Bou Aragones et al., 2025) recruited participants beyond a single national context.

Efficacy of short-video sustainable tourism content

In terms of message efficacy, existing studies converge on the finding that short-video content can meaningfully enhance sustainable tourism-related attitudes and behavioural intentions, though the mechanisms through which this occurs vary across content types and audience characteristics. Environment-friendly short video experiences have been shown to influence low-carbon tourism behavioural intentions through both cognitive pathways — specifically the perception of environmental education and sense of presence — and emotional pathways involving empathy with nature and perceived environmental responsibility (Chen & Cheng, 2023). Similarly, source-based persuasion mechanisms have demonstrated efficacy: the perceived influence of social media influencers promotes sustainable travel behaviour by first inspiring sustainability-oriented motivation and fostering involvement in sustainable travel practices (Hussain et al., 2025). At the individual difference level, content argumentation quality and source credibility emerge as particularly decisive variables, with well-crafted short videos producing stronger effects on travel intentions and environmental awareness, especially among younger audiences (Xue et al., 2024). Furthermore, the type of influencer matters: micro-influencers outperform mega-influencers in promoting sustainable destination choices among audiences with high eco-consciousness, suggesting that value

congruence between content creator and audience is a key boundary condition of persuasive efficacy (Bou Aragonés et al., 2025). Collectively, these findings indicate that the efficacy of short-video sustainable tourism content is neither uniform nor unconditional but is instead shaped by the interplay of content design, source characteristics, and audience predispositions.

Beyond the corpus of 12 reviewed studies, converging evidence from the broader literature further contextualizes these findings. Studies on short-video production characteristics indicate that elements such as visual complexity, rhythm pacing, and the emotional tone of background music constitute additional determinants of communication effectiveness (Dong et al., 2023; Oltra et al., 2025). Narrative transportation theory similarly posits that story frameworks capable of evoking emotional resonance and psychological immersion can more effectively alter viewers' attitudes and behavioural intentions (McCormack et al., 2021; Zhu et al., 2025). These parallel findings reinforce the dual-path (cognitive–affective) model identified within the reviewed corpus, suggesting that production-level features operate as meaningful peripheral cues alongside the content-level variables foregrounded in the included studies.

In terms of source effects, social media influencer (SMI) characteristics exert meaningful boundary conditions on persuasion. Bou Aragonés et al. (2025) found that micro-influencers are particularly effective among audiences with high pre-existing environmental awareness, reflecting a value alignment mechanism. Source credibility emerged as a consistent factor across multiple studies: Xue et al. (2024) demonstrated that source credibility plays a pivotal role in shaping Gen Z's sustainable travel intentions, while Hussain et al. (2025) showed that the perceived influence of SMIs promotes sustainable travel behaviour through the sequential mediation of inspiration and involvement. Beyond influencer characteristics, argument quality was also positively associated with sustainable tourism adoption intentions (Xue et al., 2024), indicating that message-level quality serves as an important cognitive input alongside source-level credibility in the persuasion process. Notably, the interaction between source type and audience predisposition suggests that the effectiveness of influencer-driven sustainable tourism communication is not universal but contingent upon audience-source congruence (Bou Aragonés et al., 2025).

Together, message and source effects appear to operate through a dual-path psychological model: an emotional pathway driven by empathy with nature, perceived environmental responsibility (Chen & Cheng, 2023), and narrative immersion experience, and social influence (Zheng et al., 2022); and a cognitive pathway driven by attitude formation, argumentation quality, and source credibility evaluation (Xue et al., 2024). The persuasive impact further appears contingent on audience characteristics, as eco-consciousness has been shown to moderate message effectiveness (Bou Aragonés et al., 2025), and environmental concern has been demonstrated to amplify the cognitive effects of media exposure on sustainability knowledge (Fu et al., 2024), consistent with broader persuasion research demonstrating that intervention effects vary according to audiences' baseline dispositions and prior attitudes. Future research should more rigorously disentangle these pathways through longitudinal or experimental designs that incorporate both affective and cognitive outcome measures.

Limitations

This review acknowledges several limitations. First, the corpus is small (12 studies) and geographically concentrated, with China accounting for 41.7% of all samples, which limits

cross-cultural and intergenerational generalizability (Hysa et al., 2022). Second, most studies relied on cross-sectional self-report surveys, making causal inferences tentative and creating vulnerability to common method bias. Third, outcomes were largely intention-based, with virtually no behavioural measures or longitudinal follow-ups, leaving the intention–behaviour gap unaddressed (Li et al., 2024). Fourth, conceptual inconsistency across studies in both the operationalization of "sustainable tourism impact" and the definition of "short video" hinders direct comparison and replication. Finally, higher-order contextual factors, including platform algorithmic dynamics and community culture, remain largely unexamined, while the persistent reliance on self-reported intentions leaves the intention-behaviour gap unresolved. Future research should therefore integrate platform-level perspectives alongside individual psychological models and adopt cross-level and longitudinal designs with objective behavioural indicators.

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