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Research on the Impact of Douyin on Tourist Visit Intention toward West Lake (Hangzhou): Integrating Destination Image Theory and the Theory of Planned Behavior

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Abstract: This study investigates how Douyin short-video characteristics influence tourists' visit intention toward West Lake, Hangzhou, by integrating the Theory of Planned Behavior (TPB) with destination image theory. A quantitative questionnaire survey was conducted through Wenjuanxing among users aged 18 or above who had visited West Lake and had viewed West Lake-related Douyin content within the previous three months. Of 500 returned questionnaires, 290 valid responses were retained after screening and quality-control procedures. The measurement model showed good reliability and convergent validity, with Cronbach's alpha values ranging from 0.867 to 0.904, composite reliability from 0.868 to 0.904, and average variance extracted from 0.686 to 0.748. Structural equation modeling indicated that information quality and visual appeal positively influenced attitude, while interactivity positively influenced subjective norm. Attitude, subjective norm, and perceived behavioral control all positively influenced visit intention. Bootstrap analysis further identified significant indirect effects through the TPB constructs. The findings support an integrated media-characteristics-to-psychological-response-to-visit-intention mechanism and provide practical implications for destination marketers seeking to improve short-video communication, interaction, and travel facilitation.

Keywords: Douyin; West Lake; tourist visit intention; Theory of Planned Behavior; destination image; short-video marketing.

1. Introduction

Short-video platforms have become an important source of tourism information and a major channel through which travelers discover, evaluate, and discuss destinations. The Theory of Planned Behavior (TPB) explains behavioral intention through attitude, subjective norm, and perceived behavioral control [1], while destination image theory emphasizes the cognitive and affective impressions through which travelers evaluate places [2]. In online tourism contexts, social media reduces information-search costs and exposes users to destination-related content, peer opinions, and user-generated experiences that can shape travel decisions [3].

Douyin is particularly relevant because short-form video combines visual storytelling, algorithmic recommendation, interaction, and user-generated content. Prior research indicates that TikTok and Douyin can rapidly increase destination visibility and alter how tourists discover places [4]. Short-form travel videos also encourage users to record, share, and socially circulate travel experiences, reinforcing both informational and social influences on destination choice [5]. West Lake in Hangzhou provides a suitable setting for examining these processes because it combines strong cultural recognition, high tourism demand, and substantial exposure on Chinese social-media platforms.

Despite growing research on social media and tourism, two gaps remain important. First, studies often examine content characteristics or behavioral intention separately, rather than tracing how specific short-video features influence the psychological mechanisms identified by TPB. Second, destination image is frequently treated as a direct antecedent of intention, while its role in strengthening the conversion of favorable psychological evaluations into visit intention has received less attention. The present study addresses these gaps by integrating Douyin content characteristics, TPB constructs, and destination image in a single empirical framework.

Accordingly, this study examines whether information quality, visual appeal, and interactivity shape tourists' attitude and subjective norm; whether attitude, subjective norm, and perceived behavioral control predict visit intention; whether TPB constructs mediate the influence of social-media characteristics; and whether destination image strengthens the attitude-intention relationship. The study contributes to short-video tourism research by linking external media stimuli with internal psychological mechanisms and a destination-level contextual factor.

2. Theoretical Background and Hypothesis Development

2.1. Douyin Social Media Characteristics

Information quality refers to the accuracy, completeness, relevance, and timeliness of destination information. In tourism short videos, reliable information can reduce uncertainty and improve evaluations of a destination. Visual appeal refers to the attractiveness of images, composition, scenery, editing, and overall presentation. Prior research shows that the narrative and visual characteristics of destination short videos can shape viewers' attitudes and travel-related responses [6, 7]. Interactivity reflects the extent to which users can comment, like, reply, share, and

communicate with creators or other users. Interactive destination pages and social-media communities can strengthen perceived social influence and visit intention [8].

H1a: Information quality positively influences tourists' attitude toward visiting West Lake.

H1b: Visual appeal positively influences tourists' attitude toward visiting West Lake.

H1c: Interactivity positively influences tourists' subjective norm regarding a visit to West Lake.

2.2. Theory of Planned Behavior and Visit Intention

TPB proposes that behavioral intention is jointly shaped by attitude, subjective norm, and perceived behavioral control [1]. Attitude represents a favorable or unfavorable evaluation of visiting West Lake. Subjective norm captures perceived expectations or social pressure from family, friends, influencers, and other significant groups. Perceived behavioral control reflects whether tourists believe they possess sufficient time, money, transportation access, information, and ability to make the trip. Tourism research has repeatedly demonstrated that these three constructs are important predictors of visit and revisit intention [8, 9].

H2a: Attitude positively influences tourists' visit intention.

H2b: Subjective norm positively influences tourists' visit intention.

H2c: Perceived behavioral control positively influences tourists' visit intention.

Short-video content is expected to influence visit intention partly because it changes these psychological evaluations. High-quality and visually attractive content can improve attitude, interactivity can strengthen subjective norm, and practical destination information can reduce perceived difficulty. Therefore, the TPB constructs are expected to transmit part of the influence of Douyin social-media characteristics to visit intention.

H3a: Attitude mediates the relationship between information quality and visit intention.

H3b: Attitude mediates the relationship between visual appeal and visit intention.

H3c: Subjective norm mediates the relationship between interactivity and visit intention.

H3d: Perceived behavioral control mediates the relationship between overall social-media characteristics and visit intention.

2.3. Destination Image as a Contextual Moderator

Destination image is the set of cognitive beliefs and affective impressions that tourists hold about a destination. Cognitive image concerns beliefs about attributes such as scenery, culture, facilities, and accessibility, whereas affective image concerns feelings such as pleasure, relaxation, and attraction. Short-form videos can strengthen destination image by allowing viewers to experience vivid scenes and emotional cues before travel [10]. In the integrated model, destination image is treated as a contextual condition that may strengthen the conversion of a favorable attitude into visit intention: a positive attitude should translate more readily into intention when the tourist already holds a strong image of West Lake.

H4: Destination image positively moderates the relationship between attitude and visit intention.

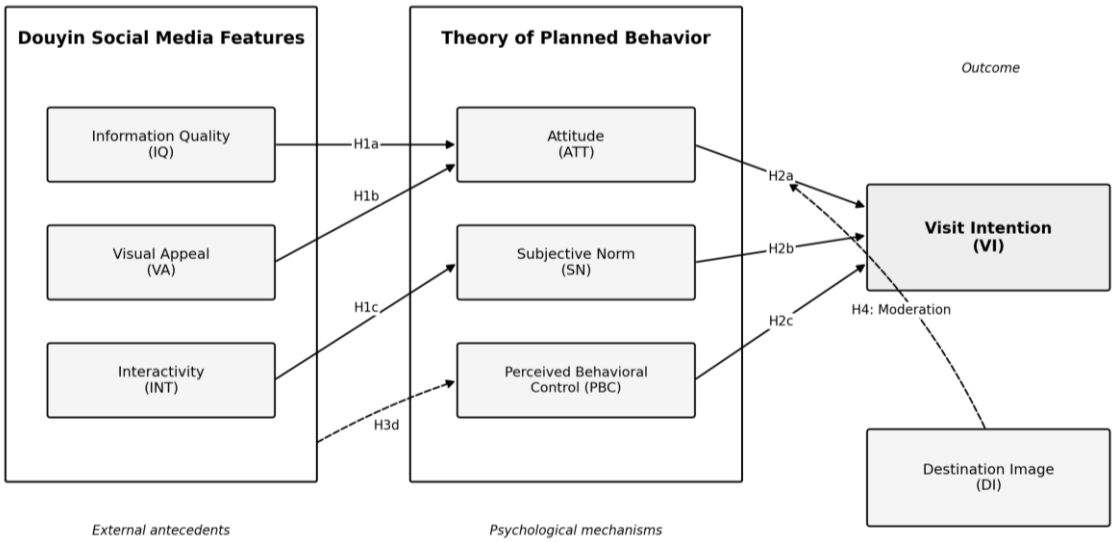


Figure 1. Conceptual framework of Douyin social-media characteristics, TPB constructs, destination image, and visit intention.

3. Research Methodology

3.1. Research Design and Sample

A quantitative, cross-sectional questionnaire design was adopted. The target population consisted of Douyin users aged 18 or above who had visited West Lake and had viewed West Lake-related content on Douyin during the previous three months. These screening criteria ensured that respondents had both direct destination experience and recent exposure to the short-video content examined in the study. Convenience sampling was used through online tourism communities and social-media channels, including West Lake-related groups and topic communities.

A pilot test with 50 responses was conducted before the formal survey. The final questionnaire was distributed through Wenjuanxing. A total of 500 questionnaires were returned. Screening and quality-control procedures removed responses that did not meet the age, content-exposure, prior-visit, and attention-check requirements. Because these exclusion categories overlapped, 290 responses simultaneously met all criteria, producing an effective response rate of 58.0%. The valid sample exceeded the minimum requirement of 250 respondents based on the rule

of at least ten respondents per core measurement item [11].

Table 1. Sample characteristics of valid respondents (N = 290)

Category	Option	n	%
Gender	Male	118	40.7
	Female	128	44.1
	Other	44	15.2
Age	18-21	128	44.1
	22-25	126	43.4
	26-30	36	12.4
Education	High school or below	38	13.1
	Junior college	82	28.3
	Bachelor	111	38.3
	Master or above	59	20.3
Monthly income	Below RMB 3,000	94	32.4
	RMB 3,001-5,000	91	31.4
	RMB 5,001-8,000	22	7.6
	RMB 8,001-12,000	39	13.4
	Above RMB 12,000	44	15.2
Visited West Lake	Yes	290	100.0

3.2. Measurement and Questionnaire

The questionnaire measured eight latent constructs with 25 items: information quality (3 items), visual appeal (3), interactivity (3), attitude (3), subjective norm (3), perceived behavioral control (3), destination image (3), and visit intention (4). Items were adapted from established scales and reworded for the Douyin-West Lake context. Core variables used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). In addition to the scale items, the questionnaire contained screening questions and demographic items.

Information quality focused on whether West Lake-related Douyin content was accurate, complete, and timely. Visual appeal assessed the attractiveness and quality of video presentation. Interactivity measured ease of commenting, sharing, and communicating around content. Attitude, subjective norm, and perceived behavioral control followed the conceptual definitions of TPB. Destination image captured respondents' overall cognitive and affective impressions of West Lake, while visit intention measured the likelihood and willingness to visit or revisit the destination.

3.3. Data Analysis

The analysis used IBM SPSS and AMOS Graphics. Descriptive statistics summarized the sample and research variables. Reliability was assessed using Cronbach's alpha, and convergent validity was assessed using standardized factor loadings, composite reliability (CR), and average variance extracted (AVE). Discriminant validity was evaluated using the Fornell-Larcker criterion [13]. Following the two-step SEM approach [12], the measurement model was assessed before testing the structural model. Model fit was evaluated using chi-square/degrees of freedom, CFI, TLI, RMSEA, and SRMR. Indirect effects were tested by Bootstrap resampling, and the destination-image interaction was evaluated as a moderation effect following regression-based moderation logic [14].

4. Results

4.1. Descriptive Statistics and Measurement Quality

The means of the eight constructs ranged from 2.249 to 2.340 on the five-point scale, and standard deviations ranged from 1.085 to 1.199, indicating sufficient variability for subsequent analysis. Internal consistency was strong: Cronbach's alpha ranged from 0.867 to 0.904 across the eight constructs. Confirmatory factor analysis showed standardized loadings between 0.792 and 0.907, CR values between 0.868 and 0.904, and AVE values between 0.686 and 0.748. These values exceed commonly applied thresholds, indicating satisfactory reliability and convergent validity. The Fornell-Larcker test also indicated adequate discriminant validity because the square root of each construct's AVE exceeded its correlations with other constructs.

Table 2. Descriptive statistics, reliability, and convergent validity

Construct	Mean	SD	Loading range	Alpha	CR	AVE
IQ	2.323	1.163	0.792-0.878	0.877	0.878	0.706
VA	2.331	1.189	0.850-0.873	0.899	0.899	0.748
INT	2.326	1.199	0.856-0.867	0.897	0.898	0.745
ATT	2.340	1.111	0.810-0.907	0.884	0.886	0.722
SN	2.268	1.085	0.813-0.838	0.867	0.868	0.686
PBC	2.269	1.140	0.844-0.860	0.889	0.889	0.728
DI	2.249	1.126	0.818-0.858	0.877	0.878	0.705
VI	2.304	1.093	0.818-0.877	0.904	0.904	0.703

4.2. Structural Model Fit and Direct Effects

The structural model demonstrated good fit. The chi-square/degrees-of-freedom ratio was 1.429, CFI was 0.978, TLI was 0.974, RMSEA was 0.039, and SRMR was 0.070. All indicators met the criteria specified in the updated thesis, supporting interpretation of the structural paths.

Table 3. Structural equation model fit indices

Fit index	Criterion	Obtained	Evaluation
chi-square/df	< 3.00	1.429	Met
CFI	> 0.95	0.978	Met
TLI	> 0.95	0.974	Met
RMSEA	< 0.05	0.039	Met
SRMR	< 0.08	0.070	Met

All six direct paths were positive and significant. Information quality positively influenced attitude (beta =

0.249, p < 0.001), supporting H1a, and visual appeal exerted a stronger positive influence on attitude (beta = 0.467, p < 0.001), supporting H1b. Interactivity positively influenced subjective norm (beta = 0.480, p < 0.001), supporting H1c. Within TPB, attitude (beta = 0.354), subjective norm (beta = 0.274), and perceived behavioral control (beta = 0.293) all positively influenced visit intention (all p < 0.001), supporting H2a-H2c.

Table 4. Direct path estimates

Hypothesis	Path	Standardized beta	p-value	Result
H1a	IQ -> ATT	0.249	< 0.001	Supported
H1b	VA -> ATT	0.467	< 0.001	Supported
H1c	INT -> SN	0.480	< 0.001	Supported
H2a	ATT -> VI	0.354	< 0.001	Supported
H2b	SN -> VI	0.274	< 0.001	Supported
H2c	PBC -> VI	0.293	< 0.001	Supported

4.3. Mediation and Moderation Effects

Bootstrap analysis with 2,000 resamples showed that all four reported indirect effects were significant because their 95% confidence intervals excluded zero. The largest indirect effect was the visual appeal-attitude-visit intention path (0.185), followed by the overall social-media characteristics-perceived behavioral control-visit intention path (0.164), the information quality-attitude-visit intention path (0.152), and the interactivity-subjective norm-visit intention path (0.110). These findings support H3a-H3d and indicate that TPB constructs partially transmit the influence of short-video characteristics to visit intention.

Table 5. Bootstrap mediation effects

Hypothesis	Indirect path	Effect	Bootstrap 95% CI	Result
H3a	IQ -> ATT -> VI	0.152	[0.095, 0.217]	Supported
H3b	VA -> ATT -> VI	0.185	[0.120, 0.261]	Supported
H3c	INT -> SN -> VI	0.110	[0.057, 0.167]	Supported
H3d	SM -> PBC -> VI	0.164	[0.097, 0.240]	Supported

The updated thesis/PPT also reports a positive destination-image moderation effect (beta = 0.120, p = 0.005), suggesting that a more favorable destination image strengthens the translation of positive attitude into visit intention. This result is treated as H4 in the integrated model. Because the source thesis explicitly notes that the H4 interaction coefficient was retained from a prior simulated estimate, it should be verified against the original Wenjuanxing raw-data export before journal submission.

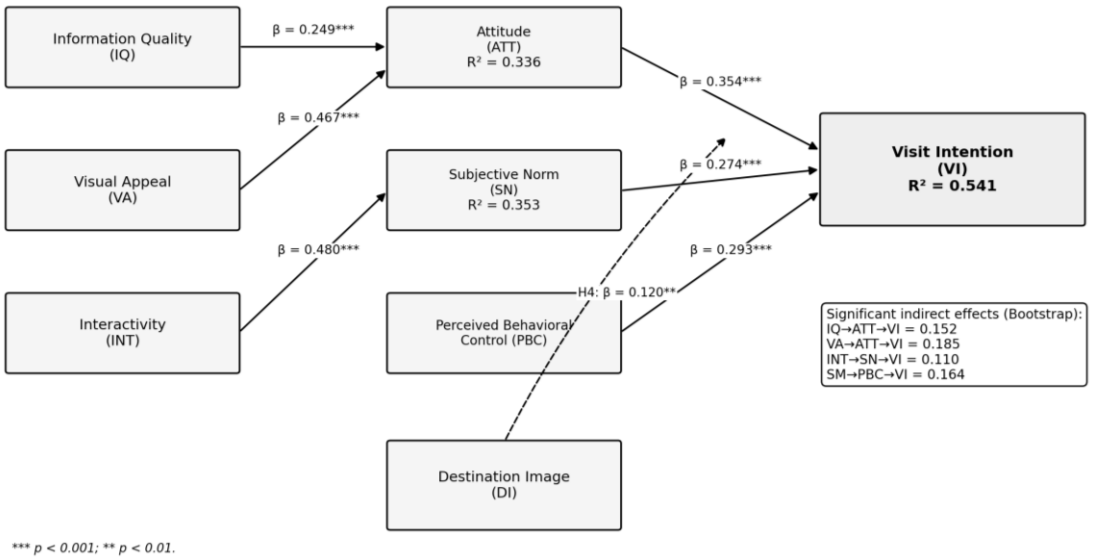


Figure 2. Structural model with empirical relationships and standardized path coefficients.

5. Discussion

The findings confirm that short-video characteristics are meaningfully associated with tourists' psychological responses toward West Lake. Information quality had a significant positive effect on attitude, indicating that accurate and useful destination information helps tourists form favorable evaluations. Visual appeal showed an even stronger effect on attitude, suggesting that the visual power of short-form tourism content is central to destination persuasion. This pattern is consistent with prior research showing that visual perspective, narration, and presentation quality can influence attitudes and travel intentions [6, 7].

Interactivity significantly strengthened subjective norm. This result indicates that likes, comments, replies, shares, and visible reactions from other users can create a sense of social

endorsement. The finding is consistent with extended TPB research in destination social media, in which online interaction and social influence contribute to visit intention [8]. For destination marketers, this means that a short video should not be treated only as a one-way advertising message; the surrounding interactive environment also matters.

The three TPB constructs all significantly predicted visit intention, with attitude showing the largest standardized coefficient among the three direct psychological predictors. This supports the central proposition of TPB and is consistent with tourism studies that use attitude, subjective norm, and perceived behavioral control to explain visit or revisit intention [1, 9]. The mediation results further show that Douyin characteristics do not operate only as direct media stimuli. They influence intention through psychological interpretation, social influence, and perceived ease of action.

The destination-image moderation result, if confirmed with the original raw data, provides an additional contextual insight. A favorable destination image may make it easier for a positive attitude to translate into concrete visit intention because tourists already possess coherent beliefs and positive feelings about West Lake. This interpretation is consistent with the broader destination-image literature, which treats image as a central component of tourism decision-making [2, 10].

6. Conclusions

6.1. Main Conclusions and Theoretical Implications

This study develops an integrated explanation of how Douyin short-video characteristics relate to tourists' visit intention toward West Lake. First, information quality and visual appeal significantly improve attitude, while interactivity strengthens subjective norm. Second, attitude, subjective norm, and perceived behavioral control all significantly predict visit intention. Third, the Bootstrap results show significant indirect effects through the TPB constructs, supporting a media-characteristics-to-psychological-response-to-intention mechanism. Finally, the updated model reports a positive destination-image moderation effect, although the interaction estimate requires raw-data verification before final submission.

The study extends TPB by treating short-video content characteristics as external antecedents and integrates destination image as a contextual factor in the conversion of psychological evaluation into visit intention. In doing so, it provides a more complete explanation of destination decision-making in a short-video environment than models that consider media characteristics or behavioral psychology alone.

6.2. Practical Implications

The findings provide several practical implications for West Lake destination managers and tourism content creators. First, short-video content should prioritize accuracy, completeness, and practical value, because information quality contributes to favorable attitudes. Second, visual storytelling should highlight scenery, culture, heritage, and recognizable travel experiences because visual appeal had a strong relationship with attitude. Third, managers should actively stimulate comments, sharing, user-generated content, and creator-user interaction to strengthen social endorsement. Fourth, practical information on transportation, itineraries, ticketing, peak periods, and accessibility can reduce perceived behavioral barriers and increase perceived control. Finally, destination-image consistency should be maintained across official accounts, influencer content, and visitor-generated videos so that favorable attitudes can be converted into stronger visit intention.

6.3. Limitations and Future Research

This study has several limitations. Convenience sampling through online communities limits the generalizability of the sample. The cross-sectional design cannot establish strong causal direction, and self-reported visit intention is not equivalent to observed future behavior. The study focuses on one destination and one primary platform, so future research should compare multiple destinations and platforms. Longitudinal or experimental designs could track whether intention develops into actual visits, bookings, or check-ins. Most importantly, before submission, the joint statistics and especially the reported H4 interaction coefficient should be checked against the original Wenjuanxing raw-data export, as noted in the updated thesis materials.

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