

A Study of the Impact of Short Cultural and Travel Videos on Urban Tourism Intention

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Abstract. Short videos focusing on culture and travel have emerged as crucial tools for promoting urban cultural tourism. Grounded in the SOR (Stimulus-Organism-Response) model, this study develops a four-dimensional scale for these videos: content richness, distribution channels, creator popularity, and video interestingness. Structural equation modeling reveals that these dimensions positively influence viewers' tourism intentions, with creator popularity and video interestingness showing the strongest effects. The cognitive image acts as a significant mediator, indicating that short videos positively shape perceptions and subsequently enhance tourism intentions. Emotional impacts also play a key role, as the videos strengthen emotional impressions, leading to increased tourism intentions. This quantitative study applies the SOR model to analyze the mechanism through which short videos influence urban cultural tourism, offering new insights for city marketing strategies and expanding the application of SOR theory in this domain.

Keywords: SOR Model, City Image, Tourism Intentions, New Media.

1. Introduction

Based on the increasingly intelligent and socialized media ecology, the Internet, represented by short video platforms, is making the form and connotation of cultural and tourism communication infinitely dispersed. Compared with traditional graphic marketing, short video marketing has a powerful visual experience and online immersion, and the viewers are very likely to have tourism intentions when accepting the content of short videos of culture and travel. China's short video base is huge, short video marketing has become a powerful tool for e-commerce marketing, and there have been different levels of research around its impact. Some studies have mentioned the application of augmented reality technology in shopping, which enhances consumers' purchase intention through a highly immersive experience. This is similar to the influence of short videos of culture and travel on the city's tourism intention through immersive expertise [1]. Some studies have pointed out that the informative, entertaining, and interactive nature of short videos of culture and travel positively affects consumers' willingness to travel and mediates the immersion state of consumers [2]. Taking impulse purchase behavior in short video scenes as an example, a study explored the psychological mechanism of a strong sense of presence on impulse purchase intention in short video marketing based on customer inspiration theory [3]. It is shown that it profoundly shows the charm of city tourism destinations through vivid visual presentation and a high degree of interaction, stimulates the emotional resonance of consumers, and thus enhances the willingness of city tourism [4].

For short videos of culture and travel, the richness of short video content, channels of distribution, popularity of creators, and interestingness of short videos are equally important. Content-rich short videos of culture and travel can vividly show the city's beauty, culture, and special activities, and enhance consumers' interest; widely disseminated short videos can expand their influence; excellent creators can attract attention; and interesting short videos can bring pleasant viewing experience, which constitutes stimulus (S). Consumers will form a cognitive image and emotional impact of the city after exposure to short videos of culture and travel (O). Ultimately, these factors motivate consumers to generate tourism intention (R). Some studies have examined the above theories, pointing out that the attractive, entertaining, innovative, and authoritative features of short videos of

culture and travel can positively influence users' impulsive tourism intention through the mind-flow experience, generating a strong impulse to travel.

Short videos of culture and travel can create an immersive experience and stimulate consumers' desire for city tourism [5]. Similarly, short videos of culture and travel can inspire tourism and enhance city tourism intention by creating a strong sense of presence. Imtiaz Arif et al. studied the impact of brand-related user-generated content on Facebook on consumer behavior based on the stimulus-organism-response framework. As a rich form of user-generated content, short videos of culture and travel can be regarded as stimuli that trigger consumers' emotional responses and attitude changes, and influence city tourism intention.

In summary, this paper will construct a short video marketing scale based on the SOR model from the four dimensions of the richness of short video content, channels of distribution, the popularity of creators, and interestingness of short videos of culture and travel, take a cognitive image and emotional impact as mediating variables, and use structural equation modeling to analyze the mechanism of the role of short videos of culture and travel marketing on the viewers' tourism intention and the analysis of its effect, to provide references and lessons for the marketing activities of short videos of culture and travel.

2. Theoretical Basis and Research Assumptions

2.1. SOR Model

The SOR model is theoretical in consumer behavior, explaining how environmental features have a predictive impact on users' emotional responses and their subsequent behaviors. In the context of cultural and tourism short videos, the features of short videos can be regarded as external stimuli, and the internal state changes of consumers may include changes in emotion, cognition, and other aspects, which will ultimately affect the consumers' tourism intention and behavior [6]. Based on this, this paper analyzes the influence effect of cultural and tourism short videos on city tourism intention and its functioning mechanism with the help of the SOR model, as shown in Figure 1.

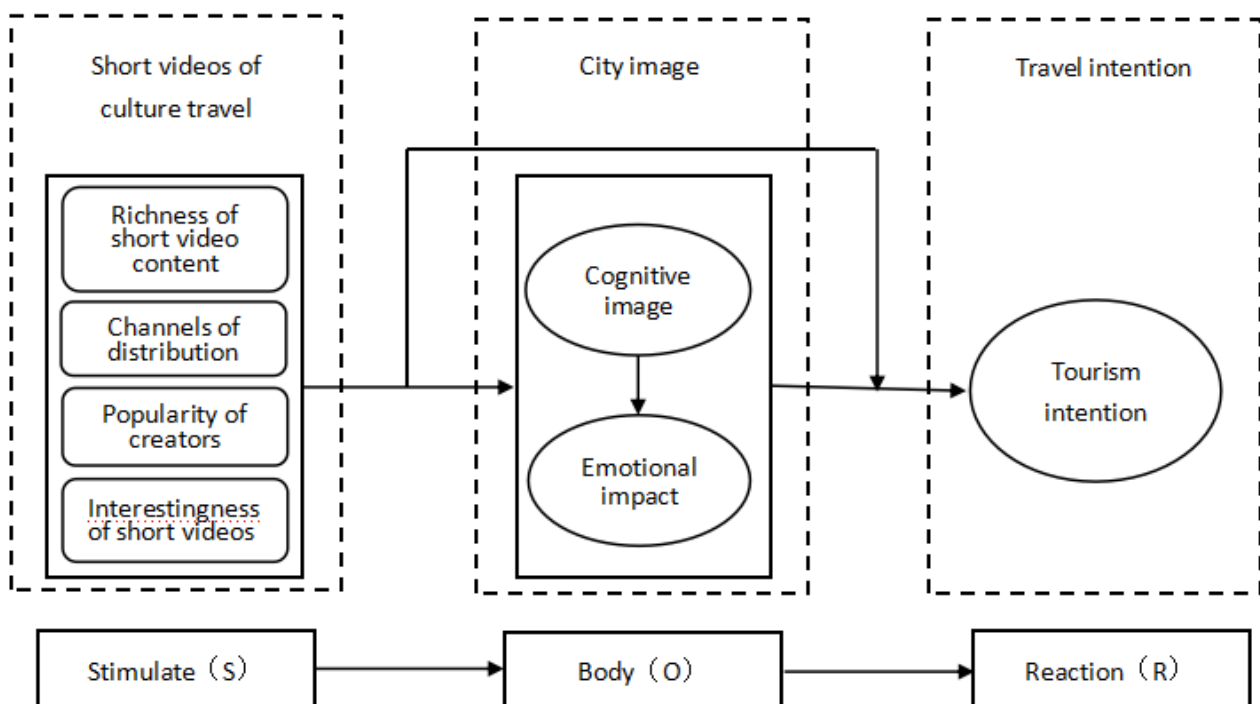


Figure 1. SOR Logic Diagram of Short Videos of Culture and Travel

2.2. Influence of Cultural and Tourism Short Videos on City Tourism Intention

City tourism intention refers to consumers' tendency and desire to travel to a specific city. Cultural and tourism short videos have the effect of attracting potential tourists and spreading city tourism information. With the help of vivid video content, they form a strong visual and emotional impact on the audience, thus changing the cognitive image and emotional impression of consumers on the city, and ultimately contributing to the consumers' intention to travel to the city. A comprehensive reference to domestic and foreign related research, short video marketing can be divided into four dimensions: the richness of short video content, channels of distribution, the popularity of creators, and the interestingness of short videos.

Specifically, the richness of content in cultural and tourism short videos can comprehensively display the beautiful scenery, cultural characteristics and diverse activities of the city, deepen consumers' understanding of the city and stimulate their yearning, and then generate the city's tourism intention; the extensive channels of distribution of cultural and tourism short videos can enable more consumers to obtain city tourism information, enhance the influence and attractiveness of the city, and when consumers frequently come into contact with high-quality distributed cultural and tourism short videos, the city's tourism intention will be significantly enhanced; the higher the popularity of short video creators, the more they can attract a lot of attention and followers, and at the same time, outstanding creators can better show the charm of the city and ignite consumers' enthusiasm for tourism; at the same time, cultural and tourism short videos with strong interestingness can bring a pleasant viewing experience, enhance consumers' favorable impression and expectation of the city, and thus affect the city's tourism intention. In summary, the following hypotheses are proposed:

H1 for Cultural and tourism short videos have a positive influence on city tourism intention;

H1a for The richness of content in cultural and tourism short videos has a positive effect on city tourism intention;

H1b for The channels of distribution of cultural and tourism short videos have a positive effect on city tourism intention;

H1c for The popularity of creators of cultural and tourism short videos has a positive influence on city tourism intention;

H1d for The interestingness of cultural and tourism short videos has a positive influence on city tourism intention.

2.3. The Mediating Role of Cognitive Image

In the process of influencing tourists' initial intentions to travel, their understanding of the city's image, shaped by watching short cultural tourism videos, is crucial. This perceived image of the city after watching the short videos of culture and travel represents their overall perception and evaluation of the tourist destination.

Tourism intention refers to the behavioral motivation that may arise in viewers to visit or explore a particular city in a certain area after exposure to relevant information. Among these, the cognitive image serves as a mediating variable, playing an intermediary or transmitting role between the independent variable (dissemination of short videos of culture and travel) and the dependent variable (city tourism intention).

Theoretically, short videos of culture and travel enhance viewers' understanding of tourist cities through vivid and engaging visual presentations and emotional resonance, covering various aspects such as the city environment, local cuisine, scenic spots, and historical backgrounds. Viewers' perceptions of these elements may further translate into tourism intentions to visit the city.

This reasoning aligns with the logic of "promotional information—image construction—tourism motivation—the decision to visit" proposed in Kotler's destination marketing system in 1973. According to Ajzen's Theory of Planned Behavior, individuals' behavioral intentions are influenced by attitudes (evaluations of behavior), subjective norms (perceptions of social pressure), and perceived behavioral control (perceptions of behavior control). This theory is equally applicable to

the cognitive image responses generated by viewers of cultural tourism short videos. In summary, the following hypothesis is proposed:

H2 for Cognitive image mediates between the dissemination of short videos of culture and travel and city tourism intention.

2.4. The Mediating Role of Emotional Impact

In the fields of marketing and consumer behavior, emotional impact reflects the intensity and clarity of product information and images in consumers' memories. Consumers evoke emotional impact through external stimuli from short videos and obtain psychological simulations similar to city tourism experiences through these impressions, thereby enhancing their intentions to travel to the city [7]. In terms of the dimensions of short video marketing: the richness of short video content is an important source of information for constructing consumers' psychological intentions, so the richness of short video content can influence impulsive purchase intentions through psychological intentions; the credibility of short videos is an important factor affecting the intensity of psychological intentions, so the credibility of short videos can influence impulsive purchase intentions through psychological intentions; the entertainment of short videos is a stimulating factor that strengthens psychological intentions, so the entertainment of short videos can influence impulsive purchase intentions through emotional impact [8]. In summary, the following hypothesis is proposed:

H3 for Emotional impression mediates between the short videos of culture and travel's channels of distribution and city tourism intention.

2.5. Sample Collection and Measurement of the Variables

The study object of this article is the audience who watched the short video content of Baoding cultural tourism on short video platforms such as TikTok, Kuaishou, etc. The questionnaire star online questionnaire was distributed through WeChat and other social platforms, 196 questionnaires were collected, 176 valid questionnaires were obtained through screening, and the questionnaire validity rate was 89.7%.

In this study, all scales refer to mature scales at home and abroad and are measured by a five-point Likert scale. The culture and tourism short video scale mainly refers to Zhai's study [9], which measures short video marketing from the four dimensions: the richness of short video content, channels of distribution, the popularity of creators, and the interestingness of short videos. The city image scale mainly refers to the scale of Wu et al [10], which measures the city image from two dimensions: the cognitive image of the city and the emotional impact of the city. The tourism intention scale mainly refers to the scale of Cheng Gao et al [3]. The content of each item of the scale is shown in Table 1.

Table 1. Selection of questions for the scale

Variant	Subject
Richness of Short Video Content	I think short videos provide me with professional interpretation and advice.
	I think short videos give me an effective visual experience.
	I think short videos show the historical background, cultural significance, and other architectural features of city attractions.
	I think short videos provide practical information such as travel routes and transportation options.
Channels of Distribution	I think short videos are spreading on multiple platforms such as TikTok, Kuaishou, etc., and spreading widely.
	I think the consistent and high-frequency posting of short videos increases their exposure opportunities.
	I think the comment section on short videos is highly interactive
Popularity of Creators	I think the creator's video engages the viewer in terms of high-impact
	I think the creator's video engages the viewer in terms of video accuracy and viewability.
Interestingness of Short Videos	I think the element of humor in short videos attracts viewers
	I think interactive experiences in short videos enhance viewer engagement and belongingness.
Cognitive Image	I gained a deeper understanding of the rich culture behind the city of Baoding.
	I experienced a deep connection to the culture of the city of Baoding.
	I deeply felt the dynamic vitality of Baoding's industrial structure and scientific and technological innovation.
	I deeply experienced the green development path of Baoding's greening construction and energy saving and emission reduction.
Emotional Impact	I look forward to tasting the Baoding specialties in the video!
	I am in awe and curious about the history and culture of Baoding.
	Baoding has a unique urban atmosphere, where ancient cultural heritage coexists with modern urban vitality.
Tourism Intention	Watching this short video, I have a strong desire to travel to Baoding!
	Watching this short video on cultural travel, I started making travel plans to Baoding.

3. Empirical analysis

3.1. Test of reliability and validity

Table 2. Test of Reliability and Validity

Variant	Measurement Term	Factor Loading	Cronbach Alpha	CR	AVE
Richness of Short Video Content	Enrichment 1	0.800	0.907	0.912	0.721
	Enrichment 2	0.860			
	Enrichment 3	0.904			
	Enrichment 4	0.828			
Channels of Distribution	Channels of Distribution 1	0.841	0.910	0.914	0.780
	Channels of Distribution 2	0.886			
	Channels of Distribution 3	0.921			
Popularity of Creators	Popularity of Creators 1	0.725	0.745	0.758	0.612
	Popularity of Creators 2	0.836			
Interestingness of Short Videos	Interestingness 1	0.846	0.820	0.821	0.696
	Interestingness 2	0.822			
Cognitive Image	Cognitive Image 1	0.898	0.929	0.930	0.768
	Cognitive Image 2	0.834			
	Cognitive Image 3	0.875			
	Cognitive Image 4	0.897			
Emotional Impact	Emotional Impact 1	0.759	0.892	0.895	0.740
	Emotional Impact 2	0.901			
	Emotional Impact 3	0.913			
Tourism Intention	Tourism Intention 1	0.934	0.912	0.915	0.844
	Tourism Intention 2	0.902			

The results of reliability and validity tests are shown in Table 2, except for the dimension of "Popularity of Creators" whose Cronbach's alpha coefficient is 0.745 (>0.7, which is considered credible), the alpha coefficients of each item of Cronbach's alpha coefficients are more than 0.8, and the alpha coefficients of Cronbach's alpha coefficients of some items are more than 0.9, indicating that this scale has high reliability. 0.9, indicating that this scale has high reliability. The standardized estimates of all variables are more than 0.7, the AVE values are more than 0.6, and the CR values are more than 0.8, indicating that the discriminant validity of this scale is reasonable.

3.2. Analysis of Current Situation

Table 3. Analysis of the current situation

	Minimum Value	Minimum Value	Average (E)	(Statistics) Standard Deviation
Richness of Short Video Content	1.00	4.25	1.655	0.676
Channels of Distribution	1.00	4.67	1.659	0.694
Popularity of Creators	1.00	4.50	1.702	0.703
Interestingness of Short Videos	1.00	4.50	1.577	0.681
Cognitive Image	1.00	4.75	1.685	0.734
Emotional Impact	1.00	4.67	1.555	0.670
Tourism Intention	1.00	56.00	1.656	0.814

Table 3 shows the current situation of the role of short videos of culture and tourism in the promotion of Baoding City, and the feedback of respondents on the richness of short video content, channels of distribution, popularity of creators, interestingness of short videos, cognitive image, emotional impact and tourism intention is very different, and all tend to "strongly disagree", which also reflects the need for this project research, and provide a more targeted strategy for the subsequent optimization of short videos of culture and tourism and enhance the satisfaction of respondents. This also reflects the necessity of this study, which will provide more targeted strategies for the subsequent optimization of short videos of culture and travel and improve the satisfaction of respondents.

3.3. Analysis of Correlation

Table 4. Analysis of the Correlation

Pearson Correlation	Richness Content	Channels	Popularity of Creators	Interestingness	Cognitive Image
Richness Content	1				
Channels of Distribution	.834**	1			
Popularity of Creators	.715**	.713**	1		
Interestingness of Short Videos	.750**	.772**	.772**	1	
Cognitive Image	.673**	.701**	.673**	.713**	1
Emotional Impact	.680**	.675**	.729**	.705**	.831**
Tourism Intention	.618**	.602**	.541**	.612**	.775**

The results of the correlation analysis are shown in Table 4, there are different degrees of correlation between the variables.

3.4. Main Effect Analysis of Short Videos of Culture and Travel on Tourism Intention

Table 5. Regression of short videos of culture and travel on tourism intention

Trails	Path Factor	95% Confidence Interval		P-Value	Judgment
Short videos of culture and travel →Tourism Intention	0.046	0.038	0.054	0.000	sustainable
The richness of Short Video Content→Tourism Intention	0.259	0.063	0.588	0.016	sustainable
Channels of Distribution →Tourism Intention	0.326	-0.101	0.427	0.230	not sustainable
Popularity of Creators →Tourism Intention	0.161	-0.173	0.261	0.693	not sustainable
Interestingness of Short Videos →Tourism Intention	0.044	0.078	0.573	0.011	sustainable

The results of the regression analysis are shown in Table 5. The path coefficient of cultural and tourism short videos on tourism intention is $\beta = 0.046$ ($p < 0.005$), indicating that short videos of culture and travel have a significant positive effect on tourism intention, and cultural and tourism short videos, through rich visual impact and strong interactivity, enable viewers to discover and enjoy their favorite content faster and obtain a good cognitive image and emotional impact of the city in the video, thus increasing the intention to travel to the city in the video. On the secondary dimensions of cultural

and tourism short videos: the richness of content of cultural and tourism short videos has an influence coefficient of $\beta = 0.259$ ($P < 0.005$) on tourism intention, channels of distribution have an influence coefficient of $\beta = 0.326$ ($P > 0.005$), the popularity of creators has an influence coefficient of $\beta = 0.161$ ($P > 0.005$), and interestingness of short videos on tourism intention is $\beta = 0.044$ ($P < 0.005$), assuming that H1a and H1d are valid and H1b and H1c are not valid.

3.5. Analysis of Mediating Benefits of Cognitive Image and Emotional Impact

Table 6. Path Test Results of Mediation Effect

Trails	Path Factor	95% Confidence Interval		P-Value	Judgment
Short videos of culture and travel →Cognitive Image →Tourism Intention	0.512	0.322	0.702	0	sustainable
The richness of Short Video Content →Cognitive Image →Tourism Intention	0.501	0.317	0.685	0	sustainable
Channels of Distribution →Cognitive Image →Tourism Intention	0.515	0.324	0.705	0	sustainable
Popularity of Creators →Cognitive Image →Tourism Intention	0.564	0.382	0.746	0	sustainable
Interestingness of Short Videos →Cognitive Image →Tourism Intention	0.522	0.333	0.711	0	sustainable
Short videos of culture and travel →Emotional Impact →Tourism Intention	0.380	0.170	0.590	0	sustainable
Richness of Short Video Content →Emotional Impact →Tourism Intention	0.364	0.159	0.569	0	sustainable
Channels of Distribution →Emotional Impact →Tourism Intention	0.396	0.193	0.599	0	sustainable
Popularity of Creators →Emotional Impact →Tourism Intention	0.473	0.257	0.689	0	sustainable
Interestingness of Short Videos →Emotional Impact →Tourism Intention	0.395	0.189	0.601	0	sustainable

The research results of the path of mediation effect are shown in Table 6. In the mediating path of the cognitive image, short videos of culture and travel can positively influence viewers' cognitive image of the city in the video, cognitive image can positively influence tourism intention, short videos of culture and travel can improve viewers' cognitive image of the city in the video, which in turn positively influences tourism intention, so cognitive image plays a significant mediating role between short videos of culture and travel and tourism intention, and the mediating effect value of the cognitive image is 0.512, and hypothesis H2 is valid. On the secondary dimension of short videos of culture and travel, the path coefficient of richness of short video content→cognitive image→tourism intention is 0.501 ($P < 0.005$), the path coefficient of channels of distribution→cognitive image→tourism intention is 0.515 ($P < 0.005$), and the path coefficient of popularity of creators→cognitive image→tourism

intention is 0.564 ($P < 0.005$), the path coefficient of interestingness of short videos→cognitive image→tourism intention is 0.522 ($P < 0.005$), and hypotheses H2a, H2b, and H2c hold.

In the mediation path of emotional impact, short videos of culture and travel can positively affect the viewer's emotional impact of the city in the video, and emotional impact can positively affect tourism intention, and culture and tourism can enhance the viewer's emotional impact of the city in the video, which in turn generates the intention to travel to the city, and the mediation effect of emotional impact is 0.38, and hypothesis H3 is valid. On the secondary dimension of short videos of culture and travel, the path coefficient of richness of short video content→emotional impact→tourism intention is 0.364 ($P < 0.005$), the path coefficient of channels of distribution→emotional impact→tourism intention is 0.396 ($P < 0.005$), and the path coefficient of popularity of creators→emotional impact→tourism intention is 0.473 ($P < 0.005$), and the path coefficient of interestingness of short videos→emotional impact→tourism intention is 0.395 ($P < 0.005$), assuming that hypotheses H3a, H3b, and H3c are true.

4. Conclusion

Through multivariate linear regression analysis, it is finally concluded that cultural tourism short videos and city images are independent and positive factors influencing tourism intention; for short videos of culture and travel, richness of short video content is less influential relative to other dimensions; for city image, richness of short video content and distribution channels are less influential relative to other dimensions.

For a limited time and funds, cities can start from the following perspectives when using short videos of culture and travel to develop the culture and tourism industry. First, the richness of the content of short videos of culture and travel has a significant positive impact on tourism intention, so the city's culture and tourism department can enrich the content of the video from various angles, such as cultural experience, natural scenery, gourmet shop, humanistic stories and play life, to create a "net red video" with high traffic heat. Second, the interestingness of short videos has a significant positive impact on tourism intention, so in the production process of short videos of culture and travel, we should appropriately combine the interesting features and the content of video display, and use the interesting video to enhance the enjoyment of viewers. Third, short videos of culture and travel can significantly improve the cognitive image of the city in the video in the hearts of viewers, so it is necessary to improve the quality of short video content, and strictly control the selection of short video content, so that "all videos are the most beautiful side of the city". Fourth, short videos of culture and travel can promote the construction of emotional impact, so creators should enhance the storytelling and interest of short video content to achieve resonance between the video and the viewer, and then promote the intention of the viewer to travel. This study enriches the application of SOR theory in the field of cultural and travel short videos, and provides valuable ideas and suggestions for cities to conduct marketing activities with the help of short videos. This study will play the role of a brick to attract jade, while more in-depth empirical analysis should be done in future practice to promote further tracking research.

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