Journal of Computing and Electronic Information Management
ISSN: 2413-1660 | Vol. 14, No. 2, 2024

Research on the Cultural Identity of Salt-related Place Names in Zigong

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Abstract: This study aims to explore how the mental experience of Zigong's salt-related place name culture impacts visitors' behavioral identity through the mediating roles of cognitive and affective identity. Based on three hypotheses: (1) mental experience has a positive impact on behavioral identity; (2) cognitive identity mediates the relationship between mental experience and behavioral identity; (3) affective identity also mediates this relationship. Data were collected from 555 tourists in Zigong, Sichuan Province, and analyzed using a structural equation model. The results show that mental experience significantly affects behavioral identity, with cognitive and affective identity playing mediating roles. This study offers insights into promoting local tourism and economic development by enhancing cultural identity through mental experiences.

Keywords: Salt-related place name culture; Mental experience; Cognitive identity; Affective identity; Behavioral identity.

1. Introduction

1.1. Research Background

Zigong, located on the southern edge of the Sichuan Basin, is known for its flourishing salt industry and has earned the title "Millennium Salt Capital." Its place names are deeply influenced by the salt industry, with many derived from salt wells and their exploitation. For instance, "Ziliujing" (Self-Flowing Well) was named after the natural flow of brine from ancient salt wells, while "Gongjing" (Tribute Well) originated from the high-quality well salt produced in the area, which was once offered to the imperial court. Other names, such as "Fushun" and "Rongxian," reflect the economic prosperity and social development brought about by the salt industry.

The development of Zigong's salt industry not only shaped its rich toponymic culture but also spurred prosperity in local customs, commerce, and architecture, making it a significant representation of ancient Chinese salt culture. In the current context of cultural and tourism integration, enhancing tourists' cultural identity through their mental experiences with salt-related place names has become a key issue for cultural transmission and tourism economic growth. Understanding how cultural experiences influence tourists' behavior is crucial for developing effective tourism strategies, especially in today's booming experience economy and cultural tourism.

1.2. Research Objectives and Questions

This study aims to analyze how tourists' mental experiences with Zigong's salt-related place names influence their behavioral identity through cognitive and affective identity, providing a theoretical basis for enhancing the cultural tourism impact of Zigong. Specifically, it addresses the following research questions:

1). Does mental experience positively influence tourists' behavioral identity?

2). Does cognitive identity mediate the relationship between mental experience and behavioral identity?

3). Does affective identity mediate the relationship between mental experience and behavioral identity?

Through investigating these questions, the study seeks to reveal the relationship between cultural experience and behavior, offering development suggestions for Zigong's cultural tourism industry, particularly in enhancing cultural identity, return rates, and word-of-mouth promotion.

1.3. Research Framework and Hypotheses

The study proposes the following hypotheses:

H1: mental experience has a positive impact on behavioral identity.

H2: Cognitive identity mediates the relationship between mental experience and behavioral identity.

H3: affective identity mediates the relationship between mental experience and behavioral identity.

2. Literature Review

2.1. Cultural Identity

Cultural identity is usually divided into three dimensions: cognitive, emotional, and behavioral. Cognitive identity refers to an individual's understanding and attachment to cultural elements, emotional identity reflects emotional connection, and behavioral identity is reflected in actions, such as the willingness to promote or participate in cultural activities. Cultural identity has a positive impact on consumption willingness in heritage tourism activities, confirming that cultural identity is an effective driving force for promoting tourists' consumption willingness. Behavioral attitudes, subjective norms, and perceived behavioral control have a positive impact on consumption willingness [1]. Due to the strategic importance of cultural identity in Bali's tourism industry, it is necessary to revitalize the application of Tri Hita Karana culture in the formulation and implementation of hotel industry strategies to gain

competitive advantage and organizational performance[2]. The formation of tourists' own cultural identity depends on long-term and profound cognition, as well as more stable emotions, and can be formed through short-term cultural learning processes. Several scholars have emphasized that there is a basic framework in the cultural cognition that individuals have from childhood, and as they grow throughout their lives, they will continue to be exposed to the common historical culture of the group into this framework.

The attitude-behavior-context (ABC) theory originated from the study of environmental psychology [3]. In the ABC theoretical framework, "A" represents the attitude of an organism towards a specific behavior; "B" refers to the specific behavior of the organism; and "C" is the contextual factor [4]. In subsequent studies, it was argued that "A" (attitude) in the ABC theory refers to a person's subjective factors, including beliefs, cultural orientations, values, and intentions, which attempt to predict the inner core of behavior[5, 6]. The predictive effect of subjective factors on individual behavior depends on situational factors, such as situational availability, interactive feedback, and social norms [7]. In this framework, an individual's participation in pro-environmental behavior is the result of a series of causal effects caused by external and internal factors. Guagnano et al. (1995) further pointed out that internal situational attitudes (A) and external situational factors (C) and their interactions determine pro-environmental behavior (B) [4]. Theoretical perspectives in environmental psychology hold that the causes of individual behavior are highly influenced by situational factors. However, if situational factors are not considered, attitudes cannot effectively predict individual behavior [7]. ABC theory is now widely used to study environmental and personal behavior, such as the psychology and behavior of green consumption and resource recycling.

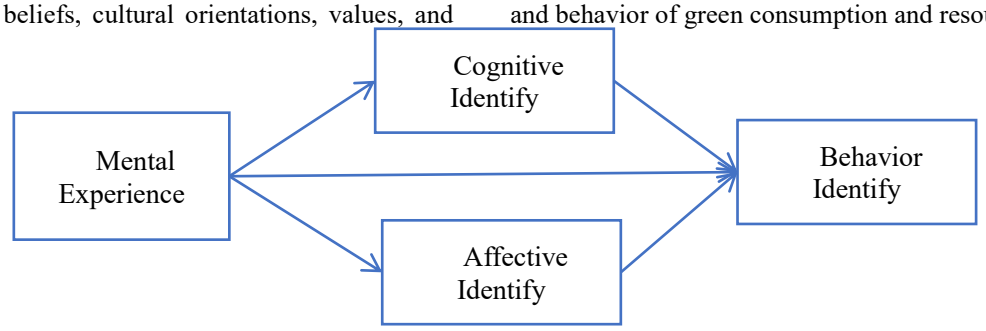

Fig.1 Conceptual Framework

2.2. Mental Experience in Tourism

Psychological experience identification covers multiple aspects, including the formation of social identity, the role of life experience, and the influence of psychological training. Research on psychological experience focuses on how personal experiences in mental health shape professional identity and practice. Professionals with experience in mental health services construct their social identity through life experience, which greatly affects their roles and interactions in the medical system [8]. The ambiguity surrounding the definition of "life experience" poses challenges to integrating peer roles in mental health, affecting workforce dynamics and identity formation [9]. Tourists' psychological experience plays a vital role in shaping their cognitive and emotional connection to places. Existing research shows that psychological and emotional engagement with cultural elements (such as place names) can enhance tourists' identification with local culture. Psychological comfort is closely related to cultural identity, in which individuals gain a sense of belonging and emotional satisfaction from their ethnic background. Art plays a vital role in expressing and reinforcing these identities [10].

3. Research Methodology

3.1. Research Subjects

The study collected data from 555 tourists in Zigong, Sichuan Province, ensuring a diverse sample of both local and non-local visitors familiar with Zigong's salt-related place names.

3.2. Research Tools

Table 1. Abbreviation, questions, and source for each construct

Construct	Abbreviation	Questions	Source
Mental Experience (ME)	ME1	I'm happy with my next trip.	[11]
	ME2	During my travels, I was busy with various activities.	
	ME3	My next trip was a significant one.	
	ME4	I am aware of myself during my next trip.	
	ME5	I have special interest in this trip.	
Cognitive Identify (CI)	CI1	This is a system that exists in our daily life in a foreign country and in a foreign culture.	[12, 13]
	CI2	I have a lot of memories of where my culture and heritage are.	
	CI3	International thinking is part of our own culture.	
Affective Identify (AI)	AI1	I am sorry for the inconvenience caused by this cultural and industrial production.	[13]
	AI2	I have a sense of pride in my culture and my world.	
	AI3	I have a deep connection to the cultural world.	
	AI4	I'm currently here, so please let me know how you feel.	
Behavior Identify (BI)	BI1	I recommend this to others as a cultural heritage.	[14]
	BI2	I will continue to visit this cultural heritage site in the future.	
	BI3	This is a very direct conversation about our culture and the world of other people.	

A questionnaire designed with a 5-point Likert scale was used to assess dimensions such as mental experience,

cognitive identity, affective identity, and behavioral identity. Table 1 shows abbreviation, questions, and source for each construct.

Data analysis was performed using smart pls software, which is divided into measurement model analysis and structural model analysis.

4. Results

4.1. Descriptive Statistics

Most respondents showed a strong interest in Zigong's salt culture, with 81.23% of tourists coming from within Sichuan Province and 18.77% from other provinces. Among them, 53.44% were male and 46.56% female.

Table 2. Descriptive Statistics

Content		Percentage
Registration	Sichuan Province	81.23
	Others	18.77
Gender	Female	46.56
	Male	53.44

4.2. Measurement Model Estimation

Initially, the reliability and validity of the measurement model were evaluated, with a focus on factor loadings, VIF values, reliability, and discriminant validity.

(1) Factor Loadings: Factor loading refers to "the correlation strength between each item in the correlation matrix and the respective principal component." In this study, all items displayed factor loadings exceeding the recommended threshold of 0.50[15]. The loadings ranged from 0.788 to 0.877 across the model, indicating that all items were sufficiently correlated with their components. As a result, no items were excluded from the analysis.

Table 3. Factor Loading

	AI	BI	CI	ME
AI1	0.813			
AI2	0.857			
AI3	0.841			
AI4	0.847			
BI1		0.877		
BI2		0.851		
BI3		0.845		
CI1			0.872	
CI2			0.874	
CI3			0.821	
ME1				0.868
ME2				0.826
ME3				0.788
ME4				0.809
ME5				0.810

(2)Variance Inflation Factor (VIF): The VIF statistic is employed to evaluate multicollinearity among the indicators[16]. A VIF value below 5 suggests the absence of significant collinearity between the indicators[17]. In this study, all VIF values were found to be under 5, confirming that multicollinearity was not a concern.

Table 4. VIF Test

	VIF
AI1	1.902
AI2	2.100
AI3	2.043
AI4	2.088
BI1	2.043
BI2	1.753
BI3	1.793
CI1	2.021
CI2	1.801
CI3	1.736
ME1	2.455
ME2	2.009
ME3	1.822
ME4	1.961
ME5	2.090

(3) According to Marks and Karkouti, reliability refers to the degree to which a measurement tool produces stable and consistent results[18]. The two most common methods for assessing reliability are Cronbach's alpha and composite reliability (CR). A Cronbach's alpha value greater than 0.7 typically indicates good internal consistency of the questionnaire[19]. Composite reliability, which evaluates the consistency of variables within a construct, should also exceed 0.7. As illustrated in Table 6, both Cronbach's alpha and composite reliability values in this study meet the required standards.

(4) Convergent Validity: Convergent validity measures the extent to which multiple items reflect the same construct. The average variance extracted (AVE) for each construct should generally exceed 0.50[17]. In this study, the AVE values ranged from 0.673 to 0.736 (Table 5), thus meeting the validity requirements.

Table 5. Cronbach's alpha, Composite Reliability, and Average Variance Extracted

	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
AI	0.861	0.865	0.705
BI	0.820	0.821	0.736
CI	0.819	0.833	0.733
ME	0.879	0.885	0.673

(5) Discriminant Validity: Discriminant validity refers to the extent to which measurement indicators differentiate between distinct concepts. In this study, the heterotrait-monotrait (HTMT) ratio was used to assess discriminant validity. According to Teo, Tsai, and Yang (2013), a threshold of 0.90 or below is considered acceptable[20]. As indicated in Table 6, the HTMT values in this study fall within the acceptable range, confirming that the discriminant validity requirements are met.

Table 6. Heterotrait - Monotrait Ratio (HTMT)

	AI	BI	CI	ME
AI				
BI	0.521			
CI	0.580	0.452		
ME	0.250	0.404	0.206	

4.3. Structural Model Estimation

(1) Predictive Power. In Partial Least Squares (PLS), the coefficient of determination (R-square) and effect size (f-square) are commonly used indicators to assess the predictive power of structural equation models. According to Hair Jr.,

Babin, and Anderson, the R-square has three key benchmarks: 0.25, 0.5, and 0.75, which represent weak, moderate, and strong explanatory power, respectively[21]. The f-square effect size measures the impact of excluding a specific exogenous variable on the R-square value. An f-square between 0.02 and 0.15 indicates a small effect; values between 0.15 and 0.35 indicate a medium effect; and values greater than 0.35 indicate a large effect[22].

(2) Explanatory power. As presented in Table 7, the R-square for AI is 0.048, for BI is 0.286, and for CI is 0.032. Overall, the conceptual model demonstrates small explanatory power. Regarding f-square (table 8), the effect size of AI on BI is 0.090, and the f-square values of CI on BI is 0.037. the effect size of ME on AI is 0.050, ME on BI is 0.082, Me on CI is 0.033. In summary, the model shows good explanatory power.

Table 7. R Square and Q Square

	R-square	R-square adjusted	Q^2predict
AI	0.048	0.046	0.043
BI	0.286	0.282	0.115
CI	0.032	0.030	0.027

Table 8. f Square

	AI	BI	CI	ME
AI		0.09		
BI				
CI		0.037		
ME	0.050	0.082	0.033	

(3) Goodness of fit. The normed fit index (NFI) is another metric used to assess the model's goodness of fit. A value closer to 1 indicates a better fit. As shown in Table 9, the SRMR value in this study is 0.051, and the NFI value is 0.874. Overall, these results suggest an acceptable model fit.

Table 9. Model Goodness of Fit

	Saturated model	Estimated model
SRMR	0.051	0.118
d_ULS	0.317	1.670
d_G	0.150	0.191
Chi-square	506.849	584.340
NFI	0.874	0.855

(4) Path coefficient analysis. The results show that ME has a significant positive impact on BI (β=0.346, t value=9.218, p value=0.000); the CI mediates the impact of ME on BI (β=0.033, t value=3.078, p value=0.002); the AI mediates the impact of ME on BI (β=0.064, t value=4.682, p value=0.000). Therefore, hypotheses H1, H2, and H3 are supported.

Table 10. Direct Relationship Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
ME -> BI	0.346***	0.348	0.038	9.218	0.000
ME -> CI -> BI	0.033**	0.034	0.011	3.078	0.002
ME -> AI -> BI	0.064***	0.065	0.014	4.682	0.000

Note: *** means p value ≤ 0.001. ** means p value≤ 0.005.

5. Conclusion

5.1. Research Summary

This study investigates the impact of mental experience related to Zigong's salt-related place name culture on tourists' behavioral identity through cognitive and affective identity. The research framework is built on three hypotheses: first, that mental experience directly influences behavioral identity; second, that cognitive identity mediates the relationship between mental experience and behavioral identity; and third, that affective identity also serves as a mediator in this relationship. Data collected from 555 tourists in Zigong, Sichuan Province, were analyzed using structural equation modeling (SEM) to test these hypotheses. The findings confirmed all three hypotheses, showing that mental experience positively impacts tourists' behavioral identity and that both cognitive and affective identities mediate this relationship. Specifically, mental experiences related to the unique cultural elements of Zigong's salt industry, such as place names, help create strong cognitive and emotional bonds with the culture, which in turn drive behavioral responses such as recommending the place to others or intending to revisit. These results highlight the importance of psychological and emotional engagement in cultural tourism and suggest that focusing on enhancing tourists' mental experiences can significantly boost cultural identity and encourage tourism-related behaviors.

5.2. Contribution

Academic Contributions

This study provides a significant academic contribution by advancing the understanding of cultural identity formation in tourism contexts. Specifically, it adds to the literature on how mental experiences in cultural tourism, particularly those involving unique place names related to local industries, can influence tourists' identity and behavior. The research introduces a novel framework combining mental, cognitive, and affective identities as mediators of behavioral identity. By focusing on Zigong's salt-related place name culture, it expands the scope of cultural identity research to include toponymic studies within the tourism sector. Moreover, this research contributes to the growing body of knowledge on the psychological experience in tourism, emphasizing its role not only in enhancing tourist satisfaction but also in fostering deeper connections with local cultures. The use of structural equation modeling to analyze these relationships offers a robust methodological approach, allowing for precise testing of mediation effects, thereby enhancing the theoretical rigor of tourism and cultural identity studies.

Practical Contributions

From a practical perspective, this study offers valuable insights for policymakers and tourism practitioners in Zigong and other regions with rich cultural heritages. The findings suggest that enhancing tourists' mental experiences—through engaging, immersive activities related to local cultural elements like salt-related place names—can significantly improve cultural identity and promote positive behavioral outcomes, such as increased visitation and positive word-of-mouth promotion. For Zigong, specifically, this implies that investment in interactive and educational tourism products that allow visitors to experience the historical and cultural significance of place names will yield positive economic and cultural returns. Practical recommendations include developing tours or exhibitions that showcase the historical importance of Zigong's salt industry, using multimedia tools

to create more immersive experiences, and designing activities that evoke emotional responses related to cultural pride and heritage. This approach could be applied more broadly to other heritage-rich areas, helping them develop sustainable tourism strategies that emphasize cultural authenticity and mental engagement, which are key drivers of long-term tourism success.

Acknowledgements

Supported by Sichuan Province University Key Research Base of Humanities and Social Sciences—China Salt Culture Research Center 2022 Funded Project, “Study on the Spatial Distribution of Salt Place Names in Zigong City” (No. YWHQ22-07)

Supported by Zigong Social Science Federation Philosophy and Social Science Key Research Base - Industrial Transformation and Innovation Research Center Project “Research on the cultural identity of immigrant villages under rural revitalization: A case study of Damoyu Village in Kunming, Yunnan” (No. CZ21D01).

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