

Digital Nomads' Perceived Value, Place Attachment, and Value Co-creation Behavior: A Case Study of DNA Digital Nomad Commune in Anji, Zhejiang

Yu Yao¹, Shengnan Wang¹, Nandou Pan¹, Man Zhang²

¹School of Business Administration, Anhui University of Finance and Economics, Bengbu, China

²School of Accounting, Anhui University of Finance and Economics, Bengbu, China

*Corresponding author: 17639632274@163.com

Abstract

With the rapid development of information technology and the rise of digital economy, digital nomads have gradually become a new way of life in the context of globalization. Based on the DNA digital nomad commune in Anji, Zhejiang Province, this paper explores the relationship between perceived value, place attachment and value co-creation behavior of digital nomads. Based on the SOR theory, this study collected data through questionnaire survey, and used SPSS and AMOS software to analyze the data, and then constructed and verified the theoretical model. It is found that the benefit perception and cost perception of digital nomads on tourism destinations significantly affect their value co-creation behavior. Among them, revenue perception has a positive impact on value co-creation behavior, while cost perception has a negative impact. Moreover, place attachment, as a mediator, significantly moderated the relationship between perceived value and value co-creation behavior. Specifically, both local identity and local dependence have a positive impact on value co-creation behavior, and local dependence has a positive impact on local identity, thus affecting value co-creation behavior. This study not only enriches the theory in the field of digital nomads, but also provides practical guidance for tourism destination management and service innovation. Future research can expand the scope of the sample and conduct long-term follow-up studies to better understand the behavior patterns and psychological needs of digital nomads.

Keywords

Digital nomads; Perceived value; Place attachment; Value co - creation behavior; Mediating effect.

1. Introduction

Digital nomads refer to those who, with the help of modern communication technology and the Internet, liberate both work and leisure from the constraints of time and location^[1]. With the continuous deepening of information technology applications and the development of the digital economy, digital nomads have not only changed from a prediction to a reality but also brought about huge changes in traditional tourist destinations. For example, the Ubud Digital Nomad Community has emerged in Bali, Indonesia^[2,3]. They have also given birth to new-type tourist destinations. For instance, Kamiyama-cho, near the Hanshin Metropolitan Area in Japan, has transformed from a remote village into a "Green Silicon Valley" where digital nomads live and start businesses^[4]. Currently, digital nomads have gathered in New York, USA, Berlin, Germany, Barcelona and Wiesbaden, Spain^[5]. The scale of the digital nomad group in China is

also constantly expanding, and Dali in Yunnan and Anji in Zhejiang are becoming typical digital nomad destinations.

With the continuous expansion of the digital nomad group, relevant literature has conducted research on digital nomads. Existing literature mainly focuses on the definition of digital nomads^[1], their group characteristics and composition^[8], lifestyle and travel patterns^[9,10,11], as well as the impact of digital nomads on tourist destinations^[2]. In addition, some literature has explored how to formulate effective policies and management measures to attract and manage digital nomads and promote the sustainable development of the local economy^[12].

The concept of value co-creation was first proposed by Prahalad, which refers to the joint creation of value by multiple stakeholders. It has later developed into a set including elements such as consumer experience, personalization, customer relationships, knowledge sharing, equality and interactive participation^[13]. Value co-creation plays an important role in the development of tourist destinations. In tourist destinations, value co-creation can promote local economic development. Through the joint participation of stakeholders, new tourism products and services can be developed, attracting more tourists and increasing tourism revenue^[14]. In addition, value co-creation can also enhance tourists' sense of identity and loyalty to tourist destinations, promote the inheritance and protection of local culture, and promote the sustainable development of tourist destinations^[15].

However, research on the behavior patterns and value co-creation mechanisms of digital nomads in tourist destinations is still insufficient. Therefore, this paper aims to explore the relationship among digital nomads' perceived value, place attachment and value co-creation behavior, hoping to provide theoretical support and practical guidance for the management and service innovation of tourist destinations.

2. Literature Review and Research Hypotheses

2.1. Perceived Value and Value Co-creation Behavior

Perceived value is the trade-off between the benefits and costs perceived by consumers for a product or service^[16]. In the field of tourism, perceived value is a multi-dimensional concept, including perceived benefits and perceived costs^[17], which has an important impact on tourists' satisfaction, loyalty and value co-creation behavior^[18]. Lin et al. found that the perceived economic and socio-cultural benefits of local residents in tourist destinations have a significant positive impact on the value co-creation between hosts and guests, while the perceived environmental costs have a significant negative impact^[19]. For digital nomads, their perceived benefits (such as cultural experiences, natural landscapes, etc.) and costs (such as living costs, transportation expenses, etc.) of tourist destinations will directly affect their overall evaluation of the tourist destination and value co-creation behavior. Based on this, the following hypotheses are proposed:

H1: Digital nomads' perception of tourism benefits has a positive impact on stakeholders' value co-creation behavior.

H2: The tourism cost perception of digital nomads has a negative impact on the value co-creation behavior of stakeholders.

2.2. Perceived Value and Place Attachment

Place attachment refers to the emotional bond established between an individual and a specific place, including two dimensions: place dependence and place identity^[20]. Place dependence emphasizes objective functional dependence, reflecting the importance of resources and the facilities they provide for the activities one wants to carry out; while place identity emphasizes subjective spiritual dependence, that is, the attachment relationship between an individual and the objective environment^[21]. As a subjective evaluation of a place by an individual, perceived

value will directly affect the emotional bond between the individual and the place. Existing research shows that an individual's positive perceived value of a place will promote their emotional bond with the place, forming a stronger place attachment^[22]. Tourist destination residents with high place attachment have a stronger perceived benefit of tourism and tend to avoid perceived costs^[23]. Based on this, the following hypotheses are proposed:

H3a: Perceived benefits of digital nomads have a positive impact on local identity.

H3b: Perceived benefits of digital nomads have a positive impact on local dependence.

H4a: Perceived costs of digital nomads have a negative impact on local identity.

H4b: Perceived cost of digital nomads has a negative effect on place dependency.

2.3. Place Attachment and Value Co-creation Behavior

Generally, the formation of place identity takes a long time. An individual first develops a sense of dependence on a place, and with the increase of place-related experiences, a sense of place identity is formed. Place dependence has a significant positive impact on place identity. Repeated visits to a place due to place dependence may lead to the formation of place identity^[24]. Therefore, the place identity of tourist destination residents is premised on place dependence^[24]. Place dependence can effectively predict place identity, and place dependence mainly affects people's daily behavior through the mediating role of place identity^[24]. Wu Dengtao et al.'s research has proved that place dependence has a significant positive impact on place identity. Based on this, this paper proposes the hypothesis:

H5: Local dependence has a positive impact on local identity.

Place attachment, as an emotional connection between an individual and a particular place, will affect the individual's behavior patterns in that place^[24]. A large number of studies have shown that the higher the degree of individual attachment to the place, the more willing to invest time, experience and other resources to participate in the co-creation of tourism value, and maintain a sustained relationship with the place^[24]; The higher the local attachment is, the more positive the attitude towards tourism development is^[24]. For digital nomads, their local attachment to a tourist destination will directly affect their value co-creation behavior in that place. Based on this, the following assumptions are proposed:

H6: Local identity of digital nomads has a positive impact on value co-creation behavior.

H7: Local dependence of digital nomads has a positive impact on value co-creation behavior.

2.4. The Mediating Role of Place Attachment

The individual's perceived value of tourism destination will first affect their emotional connection with the place (that is, local attachment), and then affect their value co-creation behavior in the place. Therefore, place attachment is an important bridge between perceived value and value co-creation behavior^[24]. In the process of local tourism development, when the residents of tourist destinations perceive the improvement of environmental hygiene and the increase of recreational and sports activities, their personal material and spiritual needs will be met, which will not only strengthen their sense of dependence and identity on the place^[24]. It can also promote them to be more willing to have good interpersonal interaction and information sharing with stakeholders, and stimulate their behavior of value co-creation with stakeholders. On the contrary, when the development of tourism causes a series of cost perceptions such as traffic congestion and environmental damage, the situation of tourist destinations will reduce their recognition and dependence on the local area, and will also hold conflicting feelings towards stakeholders, thus reducing their participation in tourism value co-creation^[24]. Based on this, the following hypothesis is proposed:

H8a: Local identity plays a mediating role in the relationship between benefit perception and value co-creation behavior of digital nomads.

H8b: Local dependence plays a mediating role in the relationship between benefit perception and value co-creation behavior of digital nomads.

H8c: Perceived benefits of digital nomads affect local identity through local dependency, which in turn affects value co-creation behavior.

H9a: Local identity plays a mediating role in the relationship between cost perception and value co-creation behavior of digital nomads.

H9b: Local dependence plays a mediating role in the relationship between cost perception and value co-creation behavior of digital nomads.

H9c: Digital Nomad Cost Perceptions Affect Local Identity through Local Dependencies, which Affect Value Co-Creation Behaviors.

Based on the SOR theory, this study explores the relationship among perceived value, place attachment and value co-creation behavior of digital nomads, and constructs a theoretical model with the perceived value of digital nomads as "external stimulus", "organism" as place attachment, and "response" as value co-creation behavior of digital nomads (see Figure 1).

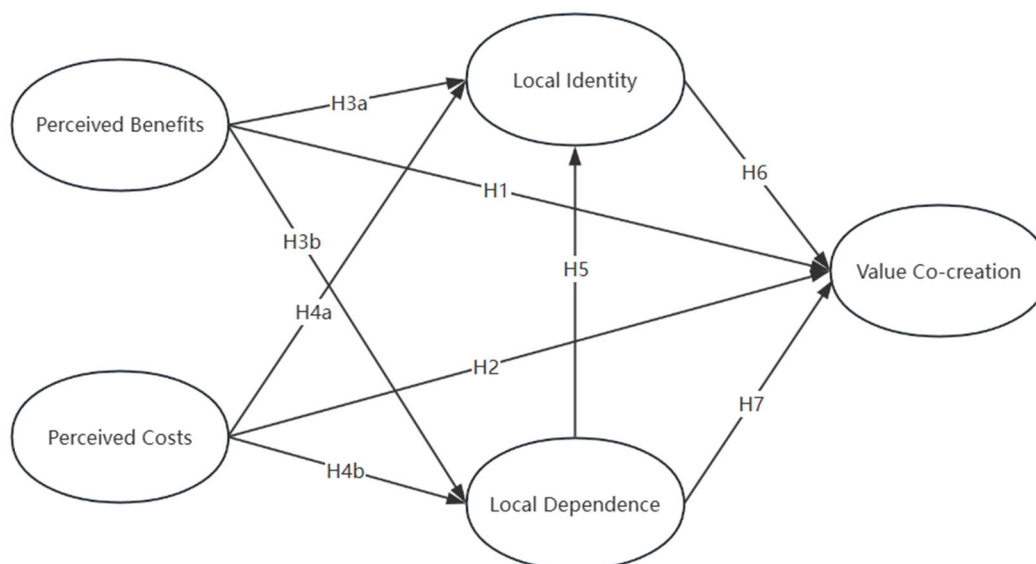


Figure 1. Study the theoretical model

3. Research Design

The DNA Digital Nomad Commune, which opened in 2021, is located in Hengshan Village, Xilong Township, Anji County, Huzhou City, Zhejiang Province. It is the first comprehensive creative park in China specifically built for digital nomads, with unique typicality and representativeness. The commune provides a comprehensive space integrating work, life and social interaction for digital nomads, attracting the gathering of many digital nomads. Here, researchers can directly observe and deeply understand the work methods, living habits, social interactions of digital nomads, as well as the challenges and needs they face. At the same time, various facilities and services in the commune also provide rich materials for research, such as shared office spaces, accommodation facilities, and recreational areas, which can fully display the living scenes of digital nomads. In addition, as the first such park in China, the development model and operation experience of the DNA Digital Nomad Commune have important reference value for studying the development trends and characteristics of digital nomads. Therefore, choosing the DNA Digital Nomad Commune for the research on digital nomads can provide

strong support for in-depth understanding of this emerging group, with great typicality and representativeness.

A total of 400 questionnaires were distributed in this survey. After eliminating questionnaires with serious data missing and excessive repeated selections, 388 valid questionnaires were obtained, with an effective rate of 97%. The sample information characteristics are as follows: males and females account for 47.42% and 52.58% respectively, with little difference in gender ratio. Those under 18 years old account for 7.73%, those aged 18-30 account for 48.45%, those aged 31-45 account for 24.23%, and those over 46 years old account for 19.59%. In terms of educational attainment, those with a high school education or below (including technical secondary school and technical school) account for 23.71%, those with a university degree (including junior college) account for 60.82%, and those with a master's degree or above account for 15.46%. Affected by the research area, the sample is mainly composed of people with higher education. Those with a monthly income of less than 3000 yuan account for 13.14%, those with a monthly income of 3001-5000 yuan account for 22.94%, those with a monthly income of 5001-8000 yuan account for 45.88%, and those with a monthly income of more than 8001 yuan account for 18.04%, mainly with middle - income earners.

Table 1. Measurement Scale for Digital Nomads' Perceived Value, Place Attachment and Value Co - creation Behavior

Dimension	Code	Measurement Items
Perceived Benefits	AA1	The living cost in the current place of residence is relatively low, which relieves me of some economic pressure.
	AA2	The work competition pressure here is relatively small. I need to spend less time and energy at work, which improves my quality of life.
	AA3	The local cultural and social environment has a positive impact on my personal growth and development.
	AA4	The local natural environment and resources bring me more life convenience and enjoyment.
Perceived Costs	AB1	I think that in the current place of residence, I need to spend more time and energy to deal with various affairs, which is a cost for me.
	AB2	The local culture and lifestyle are quite different from my original habits, and I have encountered some difficulties and challenges in the process of adaptation.
	AB3	The local infrastructure or services cannot meet my needs in some aspects, which brings me inconvenience
Place Identity	BA1	I think this place is very special to me.
	BA2	I have a strong sense of belonging here.
	BA3	This place is of great significance to me.
Place Dependence	BB1	Living here makes me more satisfied than living in other places.
	BB2	I think this place is more suitable for living than other places.
	BB3	I think this place is the most ideal place for me to live.
Interpersonal Interaction Behavior	CA1	I actively participate in local community activities and establish good interactive relationships with others.
	CA2	I will take the initiative to cooperate with other digital nomads to solve the problems we encounter.
	CA3	I am willing to communicate with local residents and learn about their culture and lifestyle.
Information Sharing Behavior	CB1	I am willing to share the valuable information I obtained locally with others.
	CB2	I will take the initiative to recommend the high - quality resources of this place to other digital nomads.
	CB3	I am willing to share my understanding and insights of this place with others to help them better adapt and integrate.

The questionnaire consists of four parts: the first part is the measurement of personal characteristics, including four items such as gender and age; the second part is the measurement of digital nomads' perceived benefits, including seven items; the third part is the measurement of digital nomads' local attachment, including six items; The fourth part is the measurement of value co-creation behavior of digital nomads, with a total of 6 items. In addition to the personal characteristics scale, the other variables were measured by Likert five-point scale, from 1 to 5, indicating strongly disagree, disagree, neutral, agree and strongly agree.

The Digital Nomad Benefits Perception Scale is based on Gursoy and Rutherford's scale^[30]. The digital nomad perception scale is divided into two dimensions: benefit perception and cost perception. The Place Attachment Scale is based on Williams and Vaske's scale^[30]. This paper divides the place attachment of digital nomads into two dimensions: place identity and place dependence. The value co-creation behavior scale of digital nomads refers to the classification criteria of Lin et al and Prahalad C K^[30]. It is divided into interpersonal interaction behavior and information sharing behavior (see Table 1).

4. Analysis of Empirical Results

4.1. Measurement model analysis

SPSS 27.0 software was used to test the internal consistency reliability of the questionnaire items, which was mainly measured by Cronbach's alpha coefficient. When the value was less than 0.300, the questionnaire had no credibility. The closer to 1, the higher the credibility of the questionnaire. Generally, the credibility of the questionnaire was higher when it was above 0.700. Through software analysis, the Cronbach's alpha coefficients of the perceived value of digital nomads are 0.853 and 0.808, respectively. The Cronbach's alpha coefficients of place identity, place dependence, interpersonal interaction and information sharing were 0.809, 0.825, 0.841 and 0.830, respectively, and the Cronbach's alpha coefficient of the whole scale was 0.788, all of which reached the significant standard of 0.700. It shows that the questionnaire items reflect a good internal consistency.

Before factor analysis, it is necessary to evaluate the validity of the questionnaire to determine whether the scale is suitable for factor analysis. Because the questionnaire of this paper is based on the mature scale of previous scholars, and according to the characteristics of this study, some items have been fine-tuned, so the scale of this paper has good content validity. Through the analysis of SPSS software, the KMO value of this scale is 0.881, which reaches the standard of excellence. The significance level of Bartlett test is $P < 0.001$, which is less than standard of 0.050. Therefore, the validity of this scale has reached a good standard and is suitable for factor analysis.

The data in this paper is obtained through the questionnaire survey method, and the same questionnaire is provided by the same subject, so it may lead to artificial covariation between the predictor and the criterion variable, and the measurement environment and the content of the questionnaire may also cause some bias. All variables in the scale were analyzed by exploratory factor analysis without rotation using Harman's single factor test. The results showed that the total variance explanation rate was 73.428%, and the variance explanation rate of the first factor was 35.366% (less than 40%). Therefore, the common method bias of the research data was not significant. At the same time, the construct validity of the scale is verified to be good.

Table 2. Confirmatory factor analysis

Variables	Topic	Standardized load	T value	CR	AVE
Revenue perception measurement	AA1	0.777	—	0.854	0.594
	AA2	0.756	15.265		
	AA3	0.759	15.006		
	AA4	0.790	14.857		
Measurement of cost perception	AB1	0.787	—	0.808	0.583
	AB2	0.746	13.299		
	AB3	0.758	13.473		
Local identity measurement	BA1	0.719	—	0.809	0.586
	BA2	0.779	13.114		
	BA3	0.797	13.258		
Locally dependent measurements	BB1	0.803	—	0.827	0.615
	BB2	0.709	13.692		
	BB3	0.836	15.667		
Interpersonal behavior	CA1	0.800	—	0.836	0.629
	CA2	0.752	15.145		
	CA3	0.827	16.268		
Information sharing behavior	CB1	0.814	—	0.836	0.630
	CB2	0.767	15.206		
	CB3	0.800	15.521		

Confirmatory factor analysis was performed on the model data by AMOS 26.0 software to judge the convergent validity and discriminant validity of the scale. It can be seen from Table 2 that the standardized factor load value of each observed variable is between 0.709 and 0.836; the combined reliability of each latent variable is between 0.808 and 0.854; The average variance of each latent variable was between 0.583 and 0.630, and all indexes were higher than critical value, and the P value reached the significant level, and the convergent validity of the model reached the standard of excellence. Then the discriminant validity of each latent variable is tested. It can be seen from Table 3 that the square root of the AVE value of each latent variable is greater than correlation coefficient between them, which indicates that the discriminant validity of the latent variable in this study is relatively high.

Table 3. Discriminant validity analysis

	Revenue perception	Cost perception	Local dependence	Local identity	Interpersonal interaction Behavior	Information sharing Behavior
Revenue perception	0.771					
Cost perception	-0.508	0.764				
Local dependence	0.420	-0.451	0.766			
Local identity	0.430	-0.478	0.478	0.784		
Interpersonal interaction Behavior	0.445	-0.462	0.462	0.489	0.793	
Information sharing Behavior	0.430	-0.446	0.446	0.472	0.351	0.794

Note: Diagonal value is the square root of AVE, and off-diagonal value is the correlation coefficient between variables.

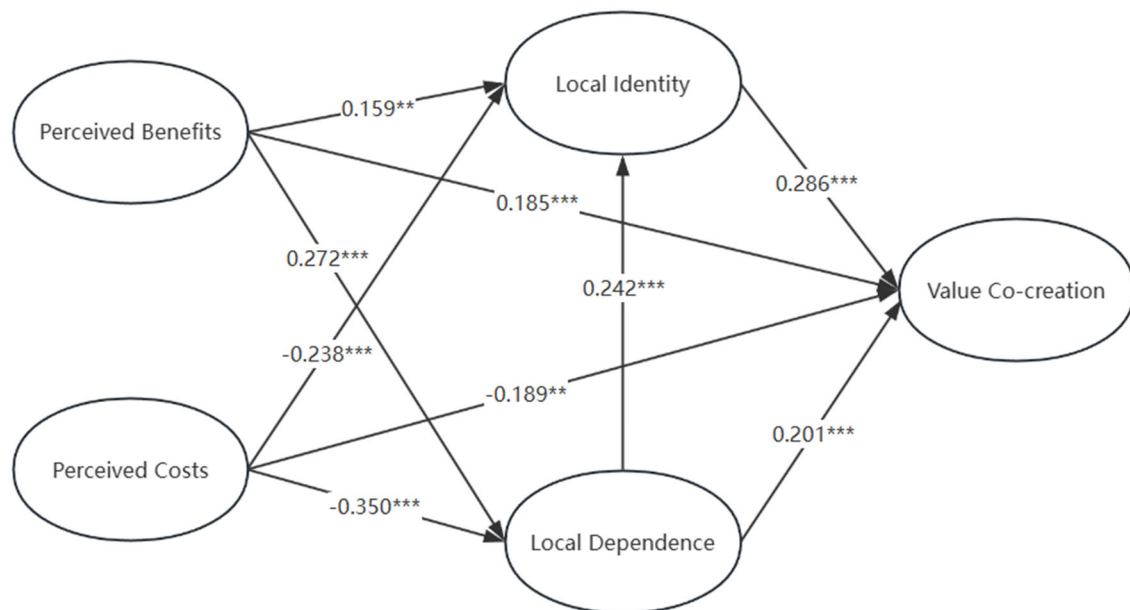


Figure 2. Results of structural equation model analysis (N = 388)

4.2. Structural equation model analysis

In this paper, AMOS 26.0 is used to estimate the parameters of the structural model, $\chi^2 = 210.8$, $df = 142$, $\chi^2/df = 1.484$, $RMSEA = 0.035$, $GFI = 0.945$, $CFI = 0.979$, $NFI = 0.939$, $TLI = 0.975$, $IFI = 0.979$, and all parameters were in line with Wu Minglong's recommended standards ($\chi^2/df < 3$, $RMSEA < 0.05$, $GFI \geq 0.90$, $CFI \geq 0.90$, $NFI \geq 0.90$, $TLI \geq 0.90$, $IFI \geq 0.90$)^[35]. Path analysis was performed with significance $p < 0.05$ as the criterion to obtain the hypothesis test results (see Table 3). The benefit perception of digital nomads has a positive and significant impact on their value co-creation behavior ($\beta = 0.185$, $P < 0.001$), as well as local identity ($\beta = 0.159$, $P < 0.01$) and local dependence ($\beta = 0.272$, $P < 0.001$). Hypothesis H1, H3a and H3b are valid. The cost perception of digital nomads had a significant negative impact on their value co-creation behavior ($\beta = -0.189$, $P < 0.01$), local identity ($\beta = -0.238$, $P < 0.001$) and local dependence ($\beta = -0.350$, $P < 0.001$), and the hypotheses H2, H4a and H4b were verified. Local dependence has a positive impact on local identity ($\beta = 0.242$, $P < 0.001$), and has a direct and significant impact on value co-creation behavior; local identity has a significant positive impact on value co-creation behavior, accepting Hypotheses H5, H6 and H7 (see Figure 2 and Table 4 for details).

Table 4. Hypothesis test results

Assume the path	Path coefficient	Standard error	T-value	Conclusion
H1: Revenue Perception → Value Co-creation	0.185***	0.055	3.343	Support
H2: Cost Perception → Value Co-creation	-0.189**	0.063	-2.987	Support
H3a: Revenue Perception → Local Identity	0.159**	0.061	2.588	Support
H3b: Revenue Perception → Local Dependency	0.272***	0.073	3.723	Support
H4a: Cost Perception → Local Identity	-0.238***	0.067	-3.538	Support
H4b: Cost Perception → Local Dependency	-0.350***	0.078	-4.489	Support
H5: Local Dependence → Local Identity	0.242***	0.057	4.242	Support
H6: Local Identity → Value Co-creation	0.286***	0.067	4.256	Support
H7: Local Dependence → Value Co-creation	0.201***	0.053	3.788	Support

Note: *** and ** indicate that P is significant at the level of 0.001 and 0.01, respectively

4.3. Mediating effect test

Following the technical methods recommended by Mackinnon et al., this paper uses the structural equation path analysis model to analyze^[35]. The nonparametric percentile and bias-corrected nonparametric percentile Bootstrap methods were used to test the mediating effect. The Bootstrap sample was set at 5000 and tested at 95% confidence interval. The results show that the mediating effect of local identity on the relationship between revenue perception and value co-creation behavior is significant, and the 95% confidence interval does not include 0, $|Z| = |2.059| > 1.96$; There is also a significant mediating effect in the relationship between cost perception and value co-creation behavior. The 95% confidence interval of bias-adjusted nonparametric percentile is (-0.197, -0.040), and the 95% confidence interval of nonparametric percentile is (-0.184, -0.030), $|Z| = |-2.615| > 1.96$. Assume that H8a, H9a hold. Locality dependence plays a significant mediating role in tourism revenue/cost perception and value co-creation behavior, 95% confidence interval does not include 0, $|Z| = |2.297| > 1.96$, $|Z| = |-2.561| > 1.96$, in the two paths of revenue/cost perception→local dependence→local identity→value co-creation behavior, The 95% confidence interval does not contain 0, and $|Z|$ is $|2.231| > 1.96$ and $|-2.250| > 1.96$ respectively, which proves that local dependence can indirectly affect value co-creation behavior by affecting local identity. Hypothesis H8b, H9b, H8c and H9c are established (see Table 5 for details).

Table 5. Test of mediating effect

Assume the path	Point estimate	Coefficient product test		Bootstrapping test		Conclusion
		SE	Z	BC method 95% confidence interval	percentile 95% confidence interval	
H8a: Revenue Perception → Local Identity → Value Co-creation Behavior	0.070	0.034	2.059	(0.019,0.158)	(0.013,0.146)	Support
H8b: Revenue Perception → Local Dependence → Value Coexistence	0.085	0.037	2.297	(0.029,0.183)	(0.022,0.166)	Support
H8c: revenue perception → local dependence → local identity → value co-creation behavior	0.029	0.013	2.231	(0.011,0.068)	(0.008,0.059)	Support
H9a: Cost Perception → Local Identity → Value Co-Creation Behavior	-0.102	0.039	-2.615	(-0.197,-0.040)	(-0.184,-0.030)	Support
H 9b: Cost Perception → Local Dependence → Value Co-Creation Behavior	-0.105	0.041	-2.561	(-0.206,-0.040)	(-0.191,-0.032)	Support
H9c: cost perception → local dependence → local identity → value co-creation behavior	-0.036	0.016	-2.250	(-0.080,-0.014)	(-0.072,-0.011)	Support

5. Conclusions and Prospects

5.1. Conclusions

Taking the digital nomads of DNA digital nomad commune in Anji, Zhejiang as the research object, this paper constructs the relationship among perceived value, place attachment and value co-creation behavior based on SOR theory, and puts forward the research hypothesis and

theoretical model. On the basis of field research and data analysis software to test the valid data, the results show that:

(1) Tourism Perception Drives Value Co-creation. The tourism perception of digital nomads directly affects their value co-creation behavior. Specifically, the positive perception of economic, social, cultural and environmental benefits can significantly promote their interaction with stakeholders, thereby enhancing value co-creation behavior. On the contrary, too high cost perception will weaken this interaction and reduce the willingness to create value together. This shows that enhancing tourism revenue perception is an effective way to stimulate digital nomads to participate in value co-creation.

(2) Positive correlation between place attachment and value co-creation. The two dimensions of place attachment, place identity and place dependence, have a significant positive impact on value co-creation behavior. Digital nomads with high local identity are more willing to invest resources to create a good experience for stakeholders. Local dependence deepens emotional connection by satisfying functional needs. This emotional connection further encourages them to invest more resources to participate in value co-creation and form a virtuous circle.

(3) Dynamic characteristics of place attachment. Place attachment is an emotional connection established between an individual and a specific place, including two dimensions of place dependence and place identification. Local attachment is not static, but will change with time and individual experience. In the process of interaction between digital nomads and digital nomad communes, their perceived value will directly affect the degree of place attachment, thus showing the dynamic variability of place attachment.

(4) Local identity as a bridge between perception and value co-creation. Local identity plays a key intermediary role between tourism revenue perception and value co-creation behavior. The benefit perception of digital nomads on place first affects their dependence on place, and then affects value co-creation behavior through local identity. The chain intermediary relationship of "perceived value→local dependence→local identity→value co-creation behavior" reveals the core position of local identity in promoting value co-creation, and emphasizes the important influence of spiritual identity on the behavior of residents in tourist destinations.

5.2. Prospects

Based on the SOR theory, this study constructs a theoretical model of the relationship among perceived value, place attachment and value co-creation behavior, and empirically tests the dynamic relationship among perceived value, place attachment and value co-creation behavior based on questionnaire data. The study finds that digital nomads' tourism perception has an important impact on value co-creation behavior, and revenue perception has a positive impact on value co-creation. The two dimensions of place attachment have a significant positive impact on value co-creation behavior, and place dependence is the antecedent of place identity, which can indirectly affect value co-creation behavior through place identity. Place attachment is dynamic, and its degree will be affected by the perceived value of digital nomads. In addition, local identity plays an intermediary role in the relationship between tourism revenue perception and value co-creation behavior, and the chain intermediary relationship of "perceived value→local dependence→local identity→value co-creation behavior" is established, and the local spiritual identity is the key factor for digital nomads to participate in tourism value co-creation behavior. It provides theoretical support and practical guidance for the management and service innovation of tourist destinations.

Due to the limitation of research conditions, this study chooses Anji DNA Digital Vagrant Commune in Zhejiang Province as the research case, and the sample range may lead to bias in the conclusion of the study. Future studies can expand the sample to cover more different types

of digital nomads and tourist destinations to improve the universality and reliability of the results.

In addition, existing studies are mainly based on cross-sectional surveys, and long-term follow-up studies can be conducted in the future to observe the changes of perceived value, place attachment and value co-creation behavior of digital nomads over time. This will help to understand the dynamic changes of behavior patterns and psychological needs of digital nomads, and provide more valuable reference for the sustainable development of tourism destinations.

Acknowledgments

This work is supported by the general project of the National College Student Innovation and Entrepreneurship Training Program, "*Research on the Relationship between Digital Nomads' Perceived Value, Local Attachment and Value Co-creation Behavior*" (Project No.: 202310378200) and the school level scientific research project of Anhui University of Finance and Economics "*Research on the Relationship between Digital Nomads' Perceived Value, Place Attachment and Value Co-creation Behavior*" (Project No: XSKY24021ZD).

References

- [1] MAKIMOTO T, MANNERS D. Digital Nomad[M]. Chichester:Wiley, 1997:15-36.
- [2] MACRAE G. Community and cosmopolitanism in the new Ubud[J]. Annals of Tourism Research, 2016, 59: 16-29.
- [3] HAKING J. Digital Nomad Lifestyle: A Field Study in Bali[D]. Stockholm: KTH Royal Institute of Technology, 2018.
- [4] Shi Chen. Path Analysis of Rural Revitalization from the Perspective of "Creative Rural Theory" --a Case Study of Kamiyama Town, Tokushima Prefecture, Japan [J]. Journal of Henan University of Science and Technology, 2021, 41 (5): 38-43.
- [5] MANCINELLI F. Digital nomads: Freedom, responsibility and the neoliberal order[J]. Information Technology and Tourism, 2020, 22(3): 417-437.
- [6] LIEGL M. Nomadicity and the care of place — On the aesthetic and affective organization of space in freelance creative work[J]. Computer Supported Cooperative Work (CSCW), 2014, 23(2): 163-183.
- [7] HANNONEN O. In search of a digital nomad: Defining the phenomenon[J]. Information Technology & Tourism, 2020, 22(3): 335-353.
- [8] CHOWDHURY G, MCLEOD J, GILLET V, et al. International Conference on Information. Cham: Springer, 2018: 207-217.
- [9] COOK D. The freedom trap: Digital nomads and the use of disciplining practices to manage work/leisure boundaries[J]. Information Technology & Tourism, 2020, 22(3): 355-390.
- [10] GREEN P. Disruptions of self, place and mobility: Digital nomads in Chiang Mai, Thailand[J]. Mobilities, 2020, 15(3): 431-445.
- [11] WANG B, SCHLAGWEIN D, CECEZ-KECMANOVIC D, et al. Beyond the factory paradigm: Digital nomadism and the digital future(s) of knowledge work post-COVID-19[J]. Journal of the Association for Information Systems, 2020, 21(6): 1379-1401.
- [12] MACRAE G. Community and cosmopolitanism in the new Ubud[J]. Annals of Tourism Research, 2016, 59: 16-29.

- [13] Liu Wenwen, Zheng Xinyi. Analysis of the Concept of Value Co-creation — — Based on the Perspective of Domestic and Foreign Literature Research. *Science and Management*, 2017, 37 (3): 52-60, 78.
- [14] Prahalad C K, Ramaswamy V. Co-creation experiences: The next practice in value creation [J]. *Journal of Interactive Marketing*, 2004, 18 (3): 5 - 14.
- [15] Ramaswamy V, Ozcan K. Brand value co-creation in a digitalized world: An integrative framework and research implications [J]. *International Journal of Research in Marketing*, 2018, 35 (1): 93 - 106.
- [16] Zeithaml, V.A.(1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.
- [17] Gursoy D, Jurowski C, Uysal M. Resident attitudes: A structural modeling approach [J]. *Annals of Tourism Research*, 2002, 29(1) : 79—105.
- [18] Petrick, J. F. . Development of a multi-dimensional scale for measuring the perceived value of a service. *Journal of Leisure Research*, 2022,34(2), 119-134.
- [19] Lin Z B, Chen Y, Filieri R. Resident—tourist value co—creation: The role of residents' perceived tourism impacts and life satisfaction[J]. *Tourism Management*, 2017, 61(8) : 436—442.
- [20] Williams, D. R., Roggenbuck, J. W. Measuring place attachment: Some preliminary results. In I. Altman & S. M. Low (Eds.), 1989,34-49.
- [21] Xu Hong, Zhou Zekun. Study on the Influence Mechanism of Smell Landscape Perception on Rural Place Attachment: Also on the Mediating Role of Nostalgia [J]. *Human Geography*, 2020, 35 (4): 48-55.
- [22] Kyle, G., Graefe, A. R., Manning, R., et al. Effects of place attachment on recreationists' perceptions of social and environmental conditions in natural areas. *Journal of Environmental Psychology*, 2004, 24(2), 213-225.
- [23] Eusébio C , Vieira A L , Lima S. Place attachment , host — tourist interactions , and residents' attitudes towards tourism development: the case of Boa Vista Island in Cape Verde[J]. *Journal of Sustainable Tourism*, 2018,26(6) : 890—909.
- [24] Moore R L, Graefe A R. Attachments to recreation settings: The case of rail — trail users[J]. *Leisure Sciences*, 1994,16(1) : 17— 31.
- [25] Tang Wenyue, Zhang Jie, Luo Hao, et al. The Relationship between Local Attachment and Resource Protection Attitude of Residents in Ancient Villages: Taking Xidi, Hongcun and Nanping as Examples [J]. *Journal of Tourism*, 2008,23 (10): 87-92.
- [26] Vaske J J, Kobrin K C. Place attachment and environmentally responsible behavior[J]. *Journal of Environmental Education*, 2001, 32(4) : 16— 21.
- [27] Wu Dengtao, Yin Hongmei, Li Rui, et al. A Study on the Impact of Tourists' Perception of Authenticity on Tourism Support Behavior Intention: The Mediating Effect of Place Attachment [J]. *Resources Development and Market*, 2021, 37 (10): 1231-1238.
- [28] Grisseman, U. S., & Stokburger-Sauer, N. E. The impact of corporate reputation and customer satisfaction on price acceptance. *Journal of Service Research*, 2012,15(2), 182-196.
- [29] Prahalad C K , Ramaswamy V. Co-creation experiences: The next practice in value creation[J]. *Journal of Interactive Marketing*, 2004, 18(3) : 5—14.
- [30] Gursoy D, Rutherford D G. Host attitudes toward tourism: An improved structural model[J]. *Annals of Tourism Research*, 2004, 31(3) : 495—516.

- [31] Wang Ning, Huang Zhenfang, Zhu Feifei. The Relationship between Local Attachment and Support for Tourism Development in Tourism Destination — — Taking Nine-village Valley as an Example [J]. Progress in Geographical Sciences, 2013, 32 (10): 1542-1552.
- [32] Tang Wenyue. Research Progress and Framework of Sense of Place [J]. Journal of Tourism, 2007, 22 (11): 70-77.
- [33] Liu Fajian, Zhang Jie, Chen Dongdong. Study on the Network Structure Characteristics and Motivation of Inbound Tourist Flows in China [J]. Acta Geographica Sinica, 2010, 65 (8): 1013-1024
- [34] Williams D, Vaske J J. The measurement of place attachment: Validity and generalizability of a psychometric approach [J]. Forest Science, 2003, 49 (6): 830 — 840.
- [35] Wu Minglong. Structural Equation Modeling: Operation and Application of AMOS [M]. Chongqing: Chongqing University Press, 2010: 6-49.