ANALYSIS OF THE EFFECT OF SOCIAL SUPPORT ON SUSTAINABLE COMPETITIVE ADVANTAGE IN TOURISM INDUSTRY – BASED ON THE PERSPECTIVE OF LIVING-ECOLOGY-PRODUCTION INTEGRATED SPACE

Shan-Lin WANG, Yun-Chao LI, Chang-Ping ZHANG

Analysis of the Effect of Social Support on Sustainable Competitive Advantage in Tourism Industry – Based on the Perspective of Living-Ecology-Production Integrated Space

Shan-Lin WANG[1], Yun-Chao LI[2], Chang-Ping ZHANG[3]

Abstract

A series of problems, such as disordered development of urban production and living space, low land use efficiency, and ecological environment pollution, appear in the rapid industrialization and urbanization process to seriously hinder the sustainable development of human social economy and ecological environment. In this case, scientifically planning national space and coordinating spatial function become the key problems in the construction of sustainably developing ecological civilization under the background of new-style urbanization and new rural development. The establishment of national spatial system living-ecology-production integrated function coevolution mechanism is the current scientific problem for solutions as well as the key in the implementation of future national spatial planning. Aiming at employees in tourism industry in Guilin, Guangxi, total 460 copies of questionnaire are distributed. After deducting invalid and incomplete copies, 362 valid copies are retrieved, with the retrieval rate 86%. According to the results to propose suggestions, it is expected to help promote the sustainable competitive advantage of industry with the application of living-ecology-production integrated space.

Keywords: tourism industry, living-ecology-production integrated space, social support, sustainable competitive advantage.

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[1] School of Economics, South-Central University for Nationalities, Wuhan 430074, CHINA. E-mail: wangshanlin1122@126.com

[2] School of Economics, South-Central University for Nationalities, Wuhan 430074, CHINA. E-mail: liyc19881988@163.com

[3] School of Management, Harbin Institute of Technology, Harbin 150001, CHINA; School of Public Administration and Communication, Guilin University of Technology, Guilin 541004, CHINA. E-mail: rainydayren@163.com (Corresponding author)

Introduction

National spatial system is the dynamic and complicated macro system formed under the interaction of land natural ecology and human social economy and presents several functions. In the rapid industrialization and urbanization process, a series of problems, e.g. disordered development of urban production and living space, low land use, and ecological environment pollution, appear in China to seriously hinder human social economy and the sustainable development of ecological environment. Along with the acceleration of urbanization, human activity constantly worsen the disturbance on the land to result in the coexistence of urban diseases, such as rapid expansion of urban population, low land resource use efficiency, serious waste of land, environmental pollution, and unbalanced spatial planning function, and rural diseases, e.g. rural hollowing, aging and weakening, defacing, and non-farming character. The future development in China would encounter accelerating consumption of land resources, worsening environment, degeneration of eco-system function, and social problems. Under the background of new-style urbanization and new rural development, scientific planning of national space and coordination of spatial function therefore become the key problems in the establishment of sustainably developing ecological civilization. To construct the living-ecology-production integrated space with intensive and high-efficiency production space, life space suitable for living, and beautiful ecology space, for highly covering national spatial system functions from the aspect of land use, the basic objective is to implement the coordination of national spatial system living-ecology-production integrated function so as to generate the synergy effect of the general function higher than the sum of partial functions. The establishment of national spatial system living-ecology-production integrated function coevolution mechanism is currently the scientific problem requiring solutions as well as the key in implementing the practice of national spatial planning.

Fujian Province, as a typical tourism resource city, has tourism economy as the major motive for urban development. Tourism production function is also the core of spatial systems. In comparison with other functions, spatial development in tourism industry presents higher priority to result in the disordered and rapid development of urban construction land and tourism industry, the pollution and destruction of ecological fragile space, as well as the lack of cooperativity in the development of living-ecology-production integrated function. Along with the exhaustion of resources, the economic development in Fujian Province has entered the transition period and the space of tourism industry needs adjustment to match new urban development requirements. Meanwhile, the protection and recovery of ecological fragile space require solutions. As a result, the establishment of reasonable spatial system living-ecology-production integrated function coevolution mechanism for tourism industry is the key in solving the contradiction between economic social development and natural ecology. Based on the viewpoint of living-ecology-production integrated space, the effect of social support on sustainable competitive

advantage in tourism industry is analyzed in this study, expecting to help promote the sustainable competitive advantage of domestic industry with the application of living-ecology-production integrated space.

Literature review

Liu *et al.* (2017) considered that social support was composed of important others, who provided spiritual, material, and environmental assistance to deal with difficulties and adapt to dilemmas, and emphasized that social support was individual perceived support. Tang *et al.* (2018) regarded social support as "individually acquired assistance and support, including love, respect, and responsibility and trust among network members, while individual perceived support was composed of individual specific beliefs and was individually perceived." Appolloni *et al.* (2018) therefore considered perceived support as support. Jansen (2017) stated that, space planning types in China, due to the effect of political, social, and economic environment and the change of space planning from "economic increase, urban construction, farmland protection, objective-control scientific development, and comprehensive coordination of sustainable development of human environment", gradually transited from economic growth, land use, to comprehensive type. The space planning, along with the change in planning goals, also gradually formed more comprehensive urban space, agricultural space, and ecology space; and, urban development boundary, farmland protection red line, and ecological red line were required. In this case, social support was necessary to coordinate the development of production, living, and ecology space. Apparently, the development of living-ecology-production integrated space required social support and cooperation. Lin *et al.* (2018) pointed out the strong effects of human needs and activity on the formation and development. Along with the promotion of urbanization, industrialization, and ecological civilization, humans further enhanced the needs for land space. Living-ecology-production integrated space separately developed the functions to present diverse trends. For instance, urban residents, along with the enhancement of life quality, enhanced the needs for closeness to nature that agricultural production space gradually appeared leisure and entertainment functions to coexist with food production function. Agriculture played the function of solving the employment of low-income groups, connecting urban ecology, and reducing urban density in urban space, and the gathering of agricultural production function offered some space in urban production space. Zhou *et al.* (2017) indicated that, under different needs, humans changed and conquered the original land to form gathering space with various functions, and the diverse needs had the functions of such space become distinct. Spatial development was originated from the needs in human society that the development of living-ecology-production integrated space required social support. The following hypothesis is therefore established in this study.

H1: Social support presents significantly positive correlations with living-ecology-production integrated space.

Cao *et al.* (2018) regarded living-ecology-production integrated space as the comprehensive partition, and space partition was the primary basis and core content of optimal allocation of national space and the major reference for making differentiated land and resources management policies; the formation was closely related to the goal of space planning systems. Zou *et al.* (2018) classified 4 types of international space planning systems, including "regional economic development policy", aiming to pursue the development and enhancement of social economy, "land use", stressing on land use control achieving the objective of regulating market development, "urban design and landscaping", which guided the protection and reasonable reuse of nature and cultural heritage through urban design and architecture control, and "comprehensive system", aiming to coordinate economy, society, environment, and transportation to guide the comprehensive and sustainable development of cities and villages. Huang *et al.* (2017) indicated that living-ecology-production integrated space focused on space planning of regional economic development and "land use". After the economic development to certain stage, it gradually turned to comprehensive system, under which space partition approached to integrated, systematical, and comprehensive development to make up the defect of less humanistic, social, and ecological concerns. Partition and major planning under different comprehensive systems could help countries develop sustainable competitive advantage for specific industries. Tao *et al.* (2017) proposed that living-ecology-production integrated space planning should stress more on spatial reconciliation, including physical material facilities and appropriate arrangement of environmental space as well as the coordination of conflict and relationship among different interested parties to effectively promote the sustainable competitive advantage of tourism industry. Ettouil *et al.* (2018) indicated that the enhancement of land quality, emphasis on comprehensive coordination and governance of land utilization, development and maintenance, and partitioning space into urban area, agricultural area, forest area, natural park area, and natural protection area could effectively enhance the sustainable competitive advantage of tourism industry. Long & Tu (2017) mentioned that living-ecology-production integrated space allowed land development paying attention to comprehensive urban planning with various specific planning and coordination as well as national planning policy framework stressing on implementing the sustainable development of economy, society, and environment and making space planning from housing, commerce, infrastructure, mining, health, and environmental protection. Yang *et al.* (2018) pointed out urban design and landscaping space planning system as an immature planning system. Such a system was suitable for national practice with more financial income, e.g. more beautiful landscape, more historical heritage, and tourism industry. Taking natural landscape and historical and cultural heritage as the planning core could benefit the development of tourism industry for the sustainable

competitive advantage. The following hypothesis is therefore established in this study.

H2: Living-ecology-production integrated space shows remarkably positive correlations with sustainable competitive advantage.

Fang *et al.* (2018) stated that corporate sustainable competitive advantage could be endogenous, determined by internal core competency, and exogenous, given by external environmental conditions. It therefore was the comprehensive ability of the systemization of an enterprise, with persistent vitality. Li & Fang (2016) defined sustainable competitive advantage as the ability specific for enterprises and dug aiming at competitors to continuously exceed competitors. Tu & Long (2017) pointed out two-level definition of sustainable competitive advantage, as 1.the dynamic process of an enterprise being able to create value for customers and exceed competitors and 2.competitive advantage not necessarily reflecting higher profits, because an enterprise might precede long-term investment (capability and resources required for future) with contemporary profits for the potential to long-term create value for customers. Deng *et al.* (2017) regarded an enterprise with sustainable competitive advantage when it was able to maintain the business performance higher than the industrial standard for long period. Wang & Tang (2018) explained that competition culture could be comprehended as the consensus and climate of the society to maintain competition mechanism and respect competition rules. The cultivation and formation of competition culture was the comprehensive function of various factors; consumers' ideas, corporate behavior to the functional positioning of the government, and the inheritance and promotion of traditional culture, the comprehension and application of commercial transaction rules, to the announcement and practice to economic laws were influenced by competition culture. Fazal & Choudhry (2017) proposed that a leader should enhance the social support and agreement in the competition culture. Xu *et al.* (2017) further explained that a leader should positively promote the organization and become the protector of policy execution to enhance people's support of policy execution and the manager to practice policies with actual actions so as to receive social support and promote sustainable competitive advantage. Shi *et al.* (2018) indicated that organizational support in perceived social support could satisfy employees' needs for being concerned so that employees considered themselves being emphasized by the organization and perceived higher organizational support to enhance the organizational identity and willingness to devote to the organization; accordingly, the organization could promote sustainable competitive advantage. As a result, the following hypothesis is established in this study.

H3: Social support reveals notably positive correlations with sustainable competitive advantage.

Methodology

Conceptual structure

Summing up above literature review, the conceptual structure (Figure 1) of this study is drafted to discuss the relationship among social support, living-ecology-production integrated space, and sustainable competitive advantage.
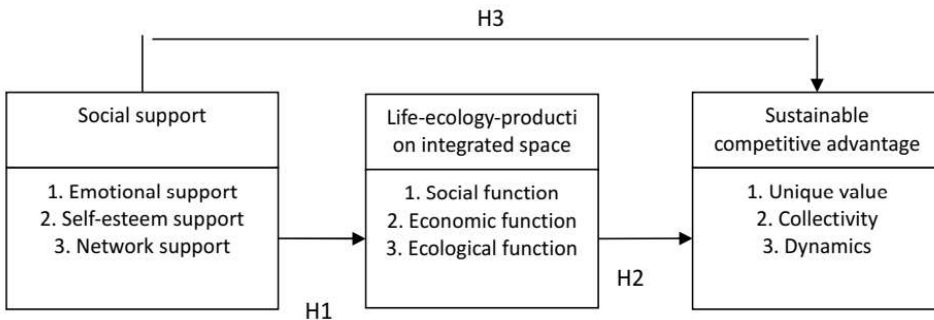

Figure 1. Conceptual structure

Operational definition

Social support

Referring to Liu *et al.* (2018), social support in this study contains following dimensions: (1) *Emotional support*: being concerned and loved; (2) *Self-esteem support*: being respected and valuable; (2) *Network support*: believing in the belongingness to certain community and taking the responsibility and obligation.

Living-ecology-production integrated space

Referring to Huang *et al.* (2019), living-ecology-production integrated space contains the following dimensions: (1) *Social function*: possible effects of social activity or phenomena on society; (2) *Economic function*: to enhance individual and national productivity and to enhance social economic growth; (3) *Ecological function*: for the protection and construction planning of ecological environment, maintenance of regional ecological security, reasonable utilization of resources, and conservation of regional ecological environment.

Sustainable competitive advantage

Referring to Min *et al.* (2018), sustainable competitive advantage covers the following dimensions: (1) *Unique value*: Corporate resources are any tangible and intangible objects in an organization, particularly stressing on objects which

could be regarded as corporate strength or disadvantage, including physical resources, human resources, organizational resources, and routine programs; (2) *Collectivity*: generally the platform of various businesses and products of an enterprise and the important composition of cross-functional corporate programs. It could be the adhesive of existing businesses as well as the driving engine of new business development; (3) *Dynamics*: An enterprise presents better dynamic ability, could efficiently reallocate resources and reconstruct ability, as well as engage in competition by grasping changing technology and market opportunities.

Research object

Guilin is a world-famous touring city and a historical and cultural city. In the process of promoting international touring spot, cultural tourism integrated ecology is developed locally by enhancing tourism with culture and booming culture with tourism. The quality of tourism industry is promoted to manifest the charm of "a city full of green and culture". Along with the development of tourism industry, cultural tourism in Guilin integrating local culture, festival culture, sport culture, and health culture becomes popular to promote local industry. Cultural tourism resources become the development advantage. Taking employees in tourism industry in Guilin, Guangxi, as the research objects, total 460 copies of questionnaire are distributed. After deducting invalid and incomplete copies, 362 valid copies are retrieved; with the retrieval rate 86%.

Analysis method

Regression analysis is applied in this study to understand the relationship among social support, living-ecology-production integrated space, and sustainable competitive advantage.

Results and discussion

Factor analysis

With factor analysis, *Table 1*, the social support scale is extracted three factors of "emotional support" (eigenvalue=2.166, α=0.87), "self-esteem support" (eigenvalue=1.833, α=0.88), and "network support" (eigenvalue=1.524, α=0.90). The cumulative covariance explained achieves 79.611%. The living-ecology-production integrated space scale, with factor analysis, is extracted three factors of "social function" (eigenvalue=3.142, α=0.84), "economic function" (eigenvalue=2.547, α=0.86), and "ecological function" (eigenvalue=2.169, α=0.89). The cumulative covariance explained reaches 76.238%. The sustainable competitive advantage scale, with factor analysis, is extracted three factors of "unique value" (eigenvalue=5.287, α=0.88), "collectivity" (eigenvalue=1.942,

α=0.82), and "dynamics" (eigenvalue=1.731, α=0.92). The cumulative covariance explained achieves 81.544%.

Table 1. Factor analysis

Variable	Factor	eigenvalue	α	cumulative variance explained
Social support	emotional support	2.166	0.87	79.611
	self-esteem support	1.833	0.88	
	network support	1.524	0.90	
Living-ecology-production integrated space	social function	3.142	0.84	76.238
	economic function	2.547	0.86	
	ecological function	2.169	0.89	
Sustainable competitive advantage	unique value	5.287	0.88	81.544
	collectivity	1.942	0.82	
	dynamics	1.731	0.92	

Correlation analysis

From *Table 2*, social support and living-ecology-production integrated space show significant correlations with sustainable competitive advantage, revealing that H1, H2, and H3 are preliminarily supported.

Table 2. Correlation analysis

Research dimension	α	social support	living-ecology-production integrated space	sustainable competitive advantage
Social support	0.89			
Living-ecology-production integrated space	0.85	0.22**		
Sustainable competitive advantage	0.87	0.28**	0.31**	

LISREL evaluation index

LISREL (linear structural relation) model combines factor analysis and path analysis in statistics and adds simultaneous equations in econometrics. It could simultaneously calculate multiple factors and multiple causal paths. The model

fit could be evaluated from preliminary fit criteria, overall model fit, and fit of internal structure of model.

With "maximum likelihood method", the analysis results achieve the convergence. Overall speaking, the indices of overall model fit in this study pass the test, *Table 3*, fully reflecting good external quality of the model.

Table 3. Model analysis result

	index	judgment standard	result
	p -value	p -value > 0.05	0.000
	χ^2/d.f.	< 3	1.262
	GFI	> 0.9	0.977
	AGFI	> 0.9	0.908
Overall fit	CFI	> 0.9	0.953
	RMR	< 0.05, lower than 0.025 excellent	0.017
	RMSEA	0.05~0.08 good below 0.05 excellent	0.024
	NFI	> 0.9	0.943
	IFI	> 0.9	0.921

Table 4 reveals that three factors of social support (emotional support, self-esteem support, network support) could significantly explain social support (t>1.96, p<0.05), three factors of living-ecology-production integrated space (social function, economic function, ecological function) could remarkably explain living-ecology-production integrated space (t>1.96, p<0.05), and three factors of sustainable competitive advantage (unique value, collectivity, dynamics) could notably explain sustainable competitive advantage (t>1.96, p<0.05). Apparently, the overall model presents favorite preliminary fit.

From *Table 5*, social support appears positive and significant correlations with living-ecology-production integrated space (0.233, p <0.01), living-ecology-production integrated space shows positive and remarkable correlations with sustainable competitive advantage (0.385, p <0.01), and social support reveals positive and notable correlations with sustainable competitive advantage (0.361, p <0.01) that H1, H2, and H3 are supported.

*Table 4. O*verall linear structural model analysis result

Evaluation item	parameter/evaluation standard		result
Preliminary fit	social support	emotional support	0.698**
		self-esteem support	0.715**
		network support	0.733**
	Living-ecology-production integrated space	social function	0.746**
		economic function	0.725**
		ecological function	0.783**
	Sustainable competitive advantage	unique value	0.762**
		collectivity	0.757**
		dynamics	0.777**

Note: * stands for p<0.05, ** for p<0.01, and *** for p<0.001.

Table 5. Overall linear structural model analysis result

Evaluation item	parameter/evaluation standard	result
Internal fit	social support→living-ecology-production integrated space	0.233**
	living-ecology-production integrated space→sustainable competitive advantage	0.385**
	social support→sustainable competitive advantage	0.361**

Note: * stands for p<0.05, ** for p<0.01, and *** for p<0.001.

Theoretical model discussion

Figure 2 shows the overall research results. Path coefficients achieving the significance are denoted with solid lines, while those not reaching the significance are denoted with dotted lines. Clearly, the path coefficients of all variables reach the significance, revealing the convergent validity of such path coefficients, conforming to the basic requirements for the analysis model. The model fit is then verified, conforming to the theory and presenting validity.
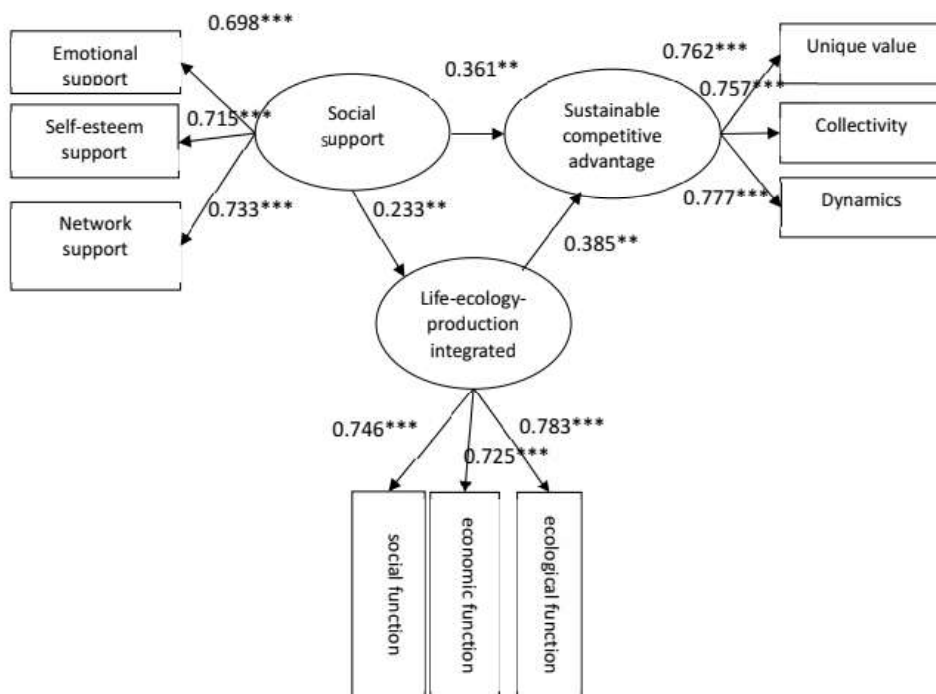
Figure 2. Path diagram

Conclusion

The research results prove that rapid development of economic society, acceleration of urbanization process, rapid development of tourism industry, and large increase in population are the major driving force to change the living-ecology-production integrated space in Fujian Province. The internal evolution of living-ecology-production integrated space in Fujian Province lies in the agricultural production land and ecological land for forest and grass being largely changed into tourism land and living land. The most obvious change in the evolution of living-ecology-production integrated space in Fujian Province appears in places being determined by local political and economic status. Living-ecology-production integrated space is based on human-land relationship and need theory to realize human-oriented principle and conform to the internal logic of space formed by clustering. The appropriateness evaluation of national space is based on land suitability, stressing on land, under the restraint of resource environment, being offered for humans' agricultural production, economic development of

industries, and urban development. The development, utilization, and optimization of living-ecology-production integrated space required the planning of space size, structure, distribution, and time sequence of tourism industry, where the planning of size and structure confirms the space demands of tourism industry. Both actually confirm the amount of space. The confirmation of distribution and time sequence ensures the sequence of spatial development and protection. It actually precedes important partition of internal space and realizes the difference of the quality of space. It aims to identify current spatial distribution of tourism industry for the optimal distribution of future tourism industry so as to balance the protection and development of space and the sustainable development to help tourism industry promote sustainable competitive advantage.

Recommendations

From the research results and findings, following practical suggestions are proposed in this study.

– It must emphasize the complete classification system of living-ecology-production integrated space function and comprehensively identify the production, living, and ecological functions of living-ecology-production integrated space, and the representative attributes of resource, environment, population, industry, and yield. It follows the rules of dominance, representativeness, and integrity and attempts to construct multi-layer and multi-level living-ecology-production integrated space function classification system to define the optimization of living-ecology-production integrated space for coordinating and optimizing the practice of living-ecology-production integrated space.

– Mountain areas, about 2/3 of total land area in China, present stronger resource gradient, disaster frequency, and ecological brittleness. Rapid urbanization results in fierce changes in social ecological system in mountain areas in China that regional development transition and spatial reorganization; and, the layout of production, living, and ecology space appears remarkable changes horizontally and vertically. Besides, a lot of tourism resources are provided by natural landscape in mountain areas that the evolution and optimization of living-ecology-production integrated space in mountain areas should be reinforced for social support to further enhance tourism industry constructing sustainable competitive advantage.

– Living-ecology-production integrated space should ensure the optimization of living-ecology-production integrated space, propose optimal path for living-ecology-production integrated space, and promote the adaptable land use function to protect ecological environment and save intensive land. Considering regional population, resources, environment, and national space for designing different situations and parameters could win the trust of society and public

groups to further enhance .social support. In this case, tourism industry could acquire social support when applying living-ecology-production integrated space to promote sustainable competitive advantage.

Acknowledgements

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