

Research Article

Research on the Sustainable Development Path of Folk Culture Village Tourism under the Background of “Internet + Industrial Resources”

Ying Xiao 

College of Economics and Management, Weinan Normal University, Weinan, Shaanxi 714099, China

Correspondence should be addressed to Ying Xiao; xiaoying@wnu.edu.cn

Received 21 February 2022; Revised 7 April 2022; Accepted 13 April 2022; Published 15 June 2022

Academic Editor: Chia-Huei Wu

Copyright © 2022 Ying Xiao. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Folk culture village has beautiful village scenery and rich national culture connotation. With the accelerated development of folk culture village tourism industry, traditional villages become popular. In view of the problems existing in the development of folk culture village tourism in Yunnan Province, from the perspective of “Internet + cultural industry,” this paper studies and analyzes the distribution status, tourism resources status and economic industry status of traditional folk villages in Yunnan Province, and uses grey correlation method to further analyze the relationship between culture, tourism industry and Internet industry. The results show that thanks to the construction of the Internet platform, the resources of Yunnan folk culture villages are known by more and more tourists. The number of tourists in Yunnan folk culture villages has increased from 1486.26 million to 3362.41, and the tourism income has also increased from 7.7 billion yuan to 21.697 billion yuan, reaching a sustained growth state. The results of the grey correlation analysis of folk culture village resources show that the correlation between cultural resources and various resources in Yunnan’s folk culture villages is greater than 0.7, indicating that there is a strong correlation between cultural resources, Internet resources, tourism resources and industrial resources, with sufficient potential for development. In order to strengthen the sustainable development of folk culture villages, the convenience of the Internet and the integration of tourism resources can be used to create an “online + offline” tourism system to further increase the popularity of the villages.

1. Introduction

With the continuous development of Internet technology, various industries have achieved industrial transformation and improved economic benefits through the penetration of the Internet. Yunnan Province is embraced with plateau and mountainous area with steep terrain. There are many ethnic traditional culture villages in Yunnan Province. However, inconvenient transportation results in slow economic development. Folk culture tourism has become a major industry to promote the economic development of Yunnan Province’s Folk Culture Village area [1]. The unique folk culture and rich natural and geographical resources of villages in Yunnan Province have made folk culture village tourism become the pillar industry of the local. However, due to the inadequate infrastructure of traditional villages

and insufficient the penetration of the Internet, development of tourism industry has been restricted. In addition, weak developer’s awareness of sustainable development and improper protection towards many folk cultural villages have led to the destruction of cultural resources. Besides, many of the tourism products are too similar, which is lack of freshness, creativity and the atmosphere of national customs and culture. These not only do harm to the ecological environment, but also affect the spread of folk culture [2, 3]. The Internet + cultural industry is characterised by fusion, union and integration. Fusion means that through the open platform of the Internet, all cultural elements of society are brought together to collide and influence each other, ultimately realising cultural integration [4–7]. Therefore, the government should take the responsibility of guidance and supervision, reasonably develop folk culture villages,

integrate online and offline tourism resources, give full play to the role of the Internet, and realize the sustainable development of folk culture village tourism.

However, there are many problems in the development of folk culture village tourism in Yunnan Province, mainly as follows: (1) Weak Sustainable Development Concept. Driven by interest blindly and in order to improve economic benefits, some traditional villages have been demolished and constructed or even completely overthrown in the development process when developing tourism resources of folk culture villages in Yunnan Province. The protection of traditional villages needs to be solved urgently [8, 9]. In addition, the lack of unified planning in the development process has also given great pressure on the ecological environment, and the overly random development of resources not only causes ecological pollution, but also greatly reduces the quality of tourism industry. (2) Backward Infrastructure Construction. Yunnan Province is located in the plateau and mountainous area with steep the terrain and remote villages. Therefore, it needs long-distance transportation to reach the scenic spot. For tourists, the trudge is indeed a bad experience. In addition, located in the mountainous area, road in Yunnan Province is difficult and the traffic conditions are extremely inconvenient, so many tourists are deterred [10]. In addition, due to the backward economic development of most traditional villages, the communication is not perfect, and even some areas will have no signal of mobile phone, which is also a major problem hindering the development of cultural village tourism. Today, the Internet platform is fully open. Only by building the infrastructure and using the Internet platform can we maximize the development of tourism resources. (3) Single Structure of Tourism Resources. Folk culture village tourism is a kind of tourism that promote folk culture. Yunnan Province has rich folk cultural resources, but during tourism resources development, there are problems such as single tourism resource structure and lack of cultural interest [11]. The dominant reason is that the serious commercialization of ancient buildings in some villages, which makes that ancient buildings completely become vendors' markets and shows that it lacks deep-seated cultural excavation. Another reason for the single tourism structure is the lack of overall planning in the process of tourism resources development and the failure to form a perfect structural system. (4) Backward Information Construction. Although part of Yunnan folk culture village resources have been developed for famous scenic spots, the terrain of some folk villages is too steep to popularize the Internet and perfect the information construction. The lack of Internet publicity of scenic spot resources and folk cultural village resources leads to promotion failure, making it difficult for tourists to obtain complete tourism information of Yunnan folk culture villages resources.

This study takes traditional folk villages in Yunnan Province as the research object in the context of Internet+ culture industry. Firstly, it studies and analyses the current distribution status, tourism resources status and economic industry status of traditional folk villages in Yunnan Province, then selects representative folk villages and further analyses the relationship between cultural,

tourism industry and Internet industry by using grey correlation method. Through classifying traditional villages and discussing their Internet-culture industry symbiosis development paths for different types of traditional villages, as well as providing some theoretical support for the protection and development of traditional villages in Yunnan Province.

2. Materials and Methods

- (1) This study firstly starts from the perspective of "Internet+," combines the cultural industry foundation of Yunnan Province, further determines the strength of association of cultural industry resources in social folklore, spatial environment, ecological environment, Internet environment and other aspects of practice, constructs the corresponding degree of living state, inheritance and integrity, build the corresponding attitude to life, inheritance, integrity, build folk, space, ecology as one of the folk village tourism symbiotic development model, realize the symbiotic development of traditional village culture, Internet and tourism industry.
- (2) Main research methods. This study mainly uses grey correlation analysis method to analyze the various elements of village culture, Internet and tourism industry. It is mainly based on the use of mathematical statistics to find the degree of similarity between the elements, so as to measure the degree of association between the elements, and the magnitude of the grey correlation value is used to reflect the strength of the association between the factors. In this study, as folk culture villages are a complex and progressive system, influenced by different elements, there are many uncertainties in the process of development, so the grey correlation analysis method is used to analyze the problems between the development elements that are difficult to analyze quantitatively.

Assume that the system characteristic behaviour sequence is: $Y_0(k) = (y_0(1), y_0(2), \dots, y_0(n))$. There are m system-related factor behaviour sequences, then the system elements behaviour sequences are: $Y_i(k) = (y_i(1), y_i(2), \dots, y_i(n))$, ($i = 1, 2, \dots, m$). The grey correlation coefficient is calculated as follows.

$$\xi_{0i}(k) = \frac{\min_i \min_k |Y_0(k) - Y_i(k)| + \rho \max_i \max_k |Y_0(k) - Y_i(k)|}{|Y_0(k) - Y_i(k)| + \rho \max_i \max_k |Y_0(k) - Y_i(k)|}, \quad (1)$$

where $\xi_{0i}(k)$ is the sequence of relevant factor behaviours of the system; $Y_i(k)$ is the correlation coefficient of the sequence of characteristic behaviours of the system $Y_0(k)$ at moment k , ρ is the discrimination coefficient, and in this study is taken as 0.5 for calculation; $\min_i \min_k |X_0(k) - X_i(k)|$ and $\max_i \max_k |X_0(k) - X_i(k)|$ are the minimum difference of two levels and the maximum difference of two levels respectively, then the grey correlation degree is defined as follows.

$$\gamma(Y_0, Y_I) = \frac{1}{n} \sum_{k=1}^n \xi_{0i}(k). \quad (2)$$

In the formula, $\gamma(Y_0, Y_I)$ is the behavior sequence of system related factors. By sorting the calculated correlation degree, the greater the correlation degree shows that the higher the correlation degree between the behavior sequence of the system related elements and the system characteristic behavior sequence, the greater the correlation degree between the two elements.

3. Results and Discussion

3.1. Analysis on Current Situation of Folk Culture Village Tourism in Yunnan Province

3.1.1. Village Distribution. Yunnan Province is covered with mountains and plateaus, accounting for 88.64% of the total area of Yunnan Province, and the terrain gradually rises from southeast to northwest [9, 10]. In 2019, the GDP of Yunnan Province reached 2322.375 billion yuan, an increase of 8.1% over the same period in 2018. Yunnan, the province with the most abundant ethnic groups in China, has 25 ethnic minorities with more than 6000 people. Among them, 15 ethnic minorities are held by Yunnan, such as Hani, Dai and Bai. Therefore, Yunnan Province has the characteristics of multi-ethnic culture convergence and rich folk culture village resources, so it provides a solid foundation for the development of folk culture village tourism with the gradual penetration of Internet platform into various industries. Yunnan Province is located in the plateau and mountainous area, with many mountains and valleys and uneven terrain. Most of the traditional villages are located in steep terrain in Northwest China, as shown in Figure 1. The city like Lijiang, Dali and other places have the largest number of folk culture villages, which indicates that these areas are with the best development of tourism industry of folk culture villages in Yunnan Province. In the southeast of Yunnan Province, such as Lincang city and Honghe city, the distribution of traditional villages is also relatively dense. Generally speaking, inconvenient traffic caused by terrain leads to most of the traditional villages can maintain the national cultural characteristics all the year round [12].

3.1.2. The Current Situation of Tourism Resource Development. Relying on its unique geographical environment and rich ethnic cultural village resources, Yunnan Province has vigorously developed the folk culture village tourism industry in recent decades, and has formed a unique folk culture tourism signboard, which directly promotes the economic development of Yunnan Province. Yunnan Province has 615 traditional Chinese villages and more than 200 scenic spots, and most of which are developed from tourism resources of traditional folk culture villages in Yunnan Province [13]. In addition, taking advantage of its unique geographical environment, Yunnan Province has developed a number of scenic spots with folk culture, containing high mountains, lakes, plateau canyons, which

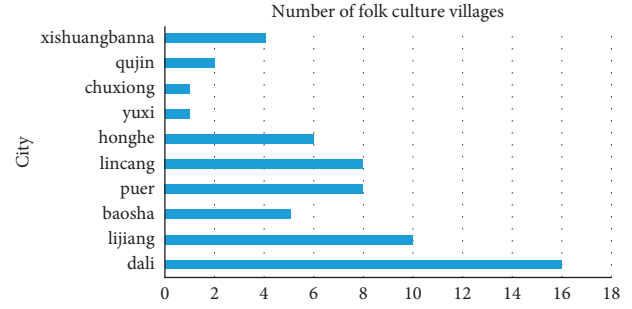


FIGURE 1: Distribution of folk culture villages in Yunnan Province.

not only highlighted the local humanistic feelings and geographical characteristics, but also enriched the tourism resources. [14]. Figure 2 shows terraces in Hani village of Yuanyang, Yunnan Province. At present, the tourism of Yunnan folk culture villages with the concept of sustainable development is rising, and under the background of impetus of the Internet plus culture, the development of industry has also been accelerating, and more and more tourists come to fame. In the development of tourism industry, according to the statistics related public data, it was found that the tourism industry of folk culture villages in Yunnan Province has developed rapidly from 2014 to 2018 (Figures 3 and 4). Among them, in 2014, the total tourism income of folk cultural villages in Yunnan Province was 266.547 billion yuan, with a total of 286.4755 million person times; while in 2018, the total tourism income of folk cultural villages in Yunnan Province was 899.144 billion yuan, an increase of 337% compared with 2014, and a total of person times was 688.478 million, an increase of 240% compared with 2014 [15–17]. During this period of time, the total tourism income and total person times of Yunnan folk culture villages presented a steady growth trend, and the growth rate was quite significant.

3.1.3. Analysis of the Current Development Situation of Economic Industrial (Internet Industrial). The total value of the primary industry, the secondary industry, the tertiary industry and the GDP of Yunnan Province in 2014 were 2007.43 billion yuan, 531.335 billion yuan, 556.238 billion yuan and 556.238 billion yuan respectively [18], while in 2018, they were 249.886 billion yuan, 695.744 billion yuan, 695.744 billion yuan and 178.8112 billion yuan, respectively, with year-on-year growth rates of 124.48%, 130.94%, 151.46% and 138.79%. The development of various industries in Yunnan Province is shown in Table 1. As a tertiary industry, tourism industry ranks first in the economic growth proportion of Yunnan Province, and folk culture village tourism is dominant. This shows that the rapid development of tourism industry of folk culture villages in Yunnan Province promotes the development of regional economy in Yunnan Province. To a certain extent, attracting foreign investment through the development of tourism industry of folk culture villages in Yunnan Province can not only improve the brand effect in the region, but also increase the number of employment and the development of related industries. In recent years, information construction has



FIGURE 2: Terraces in Hani village, Yuanyang, Yunnan.

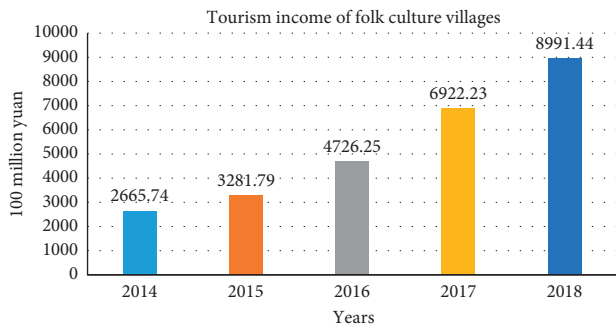


FIGURE 3: Total income of tourism industry of folk culture villages in Yunnan Province.

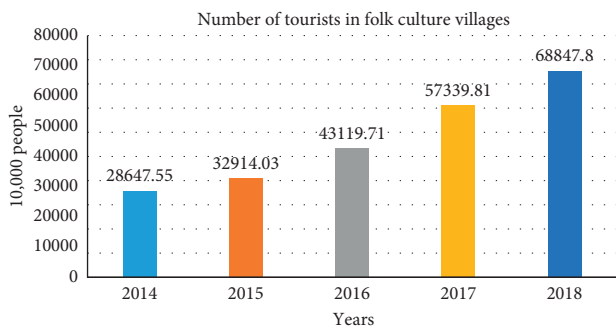


FIGURE 4: Number of tourists of folk culture villages in Yunnan Province.

brought great convenience to the tourism industry of folk culture villages in Yunnan Province. As shown in Table 2, from 2015 to 2019, the number of tourists received by Yunnan folk culture villages increased from 14.8626 million to 33.6241, with the growth rate increasing year by year. The tourism income also increased from 7.7 billion yuan to 21.697 billion yuan, remaining sustained growth. Among them, the proportion of tourism from 2018 to 2019 occupied the highest proportion of GDP, reaching 42.3%. Thanks to the construction of Internet platform, Yunnan folk culture village resources are known by more and more tourists, which not only directly promotes the development of tourism in Yunnan Province, but further boosts the substantial economic growth of Yunnan Province.

3.2. Grey Correlation Analysis of Folklore and Cultural Village Resources. This study mainly explores the intrinsic relationship between cultural resources and Internet resources,

tourism resources and industrial resources, and then constructs the correlation system of cultural industry-Internet in folk culture villages. The sequence of cultural resources of the selected villages is taken as the system characteristic behaviour sequence $Y_0(k)$, and the sequences of Internet resources, tourism resources and industrial resources are taken as the system relevant factor behaviour sequences $Y_1(k)$, $Y_2(k)$ and $Y_3(k)$ respectively. The correlations between village cultural resources and other resources were calculated using grey modeling software (as in Table 3). As can be seen from Table 3, the correlation degree values between cultural resources and each resource are all greater than 0.7, indicating that there is a strong correlation between cultural resources and Internet resources, tourism resources and industrial resources, and that the village resources in the selected Yunnan province are good and have sufficient development potential. By ranking the strength of association between cultural resources and Internet resources, tourism resources and industrial resources, the folk villages in Yunnan Province can be further subdivided into traditional skill-based, interconnected industry-based and tourism-ecology-based.

3.3. Counter Measures for Sustainable Development. (1) Improvement of Infrastructure and Giving Full Play to the Role of the Internet. The improvement of infrastructure is of great importance for the development of tourist attractions. Firstly, the traffic conditions, communication conditions and other infrastructure of Yunnan folk culture village scenic spots should be improved, so that tourists could enjoy a more comfortable travel experience. Secondly, Internet platform should be taken advantage, village scenic spots publicity website can be built to spread folk culture, and more convenient online booking services such as tickets, travel, accommodation, food and so on can be optimized. Thanks to the convenience of the Internet, the folk culture of Yunnan Province can be known by more people, which can not only improve the popularity of village scenic spots, but also carry forward and inherit the colorful folk culture [19, 20]. (2) Reasonable Development of Tourism Resources and Achievement of Sustainable Development. Yunnan Province owns rich tourism resources of folk culture villages, which have been well preserved in the long-term closed state, which are valuable intangible cultural heritage in China. It is particularly important for Yunnan Province to develop village tourism resources reasonably and realize sustainable development in the development of tourism resources and the promotion of economic development. The government should play a leading role in coordinating the relationship between economic development and resource protection, so as to avoid excessive pursuit of economic interests and the destruction of ecological resources. The macro functions of the government should be utilized and tourism management institutions should be improved [21, 22]. The management rules of relevant departments should be formulated by legal means, and professional training and qualification assessment should be carried out for those engaged in tourism work. Law enforcement should be strengthened to prevent

TABLE 1: Development of various industries in Yunnan Province.

Year	Primary Industry(100 million yuan)	Secondary industry (100 million yuan)	Tertiary industry (100 million yuan)	Gross domestic product (100 million yuan)	Per capita GDP(yuan/person)
2014	2007.43	5313.35	5562.38	12883.16	27410
2015	2079.31	5450.46	6172.86	13702.63	28983
2016	2225.49	5690.16	6903.15	14818.8	31157
2017	2338.37	6204.97	7833	16376.34	34221
2018	2498.86	6957.44	8424.82	17881.12	37136

TABLE 2: Related data of tourism industry of folk culture villages in Yunnan in recent five years.

Year	Reception number (ten thousand people)	Growth ratio (%)	Tourism revenue (100 million yuan)	Share of GDP (%)	Growth ratio (%)
2015	1486.26	15.50	77	21.30	17.60
2016	1884.69	25.50	106.57	26.60	34.70
2017	2323.1	23.30	145.1	34.70	37.60
2018	2812.5	20.90	174.6	36.60	20.50
2019	3362.41	19.60	216.97	42.30	24.30

TABLE 3: Grey correlation between cultural resources and Internet resources, tourism resources, and industrial resources of folk culture villages.

Grey correlation	Y_1 (k) degree of living state	Y_2 (k) (inheritance)	Y_3 (k) (integrity)
Cultural resource	0.863	0.784	0.892
Internet resource	0.879	0.863	0.824
Tourism resource	0.833	0.816	0.901
Industrial resource	0.887	0.826	0.811

illegal operation and market disruption. (3) Integration of Tourism Resources and Construction of Tourism System. It is very important for development of industry to reasonably integrate resources. Under the support of the government, Yunnan folk culture village tourism should integrate online and offline channels, and create a tourism system with Yunnan folk characteristics along with rich folk cultural resources and geographical characteristics. Through the comprehensive and systematic research on the natural resources and human resources of traditional villages, this paper provides theoretical guidance for the reasonable development and management of tourism resources of folk culture villages, so as to construct a scientific classification system and evaluation system, and to create a representative excellent folk culture tourism route.

4. Conclusion

- (1) Thanks to the construction of the Internet platform, the resources of Yunnan's folklore and cultural villages are known by more and more tourists, and the number of tourists received by Yunnan's folklore and cultural village tourism has increased from 14,862,600 to 3,362,141, and the tourism revenue has also increased from 7.7 billion yuan to 21.697 billion yuan, reaching a sustained growth state.
- (2) The study found that the correlation between cultural resources and various resources of folk culture villages in Yunnan Province is greater than 0.7,

indicating that there is a strong correlation between cultural resources and Internet resources, tourism resources and industrial resources, which has sufficient development potential.

- (3) In order to strengthen the sustainable development of folk culture villages, the convenience of the Internet and the integration of tourism resources can be used to create an "online + offline" tourism system to further increase the popularity of village scenic spots.

Data Availability

The labeled dataset used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The author declares no conflicts of interests.

Acknowledgments

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

- [1] C. Atton, "Far-right media on the internet: culture, discourse and power," *New Media & Society*, vol. 8, no. 4, pp. 573–587, 2016.

- [2] F. L. Weiser and H. H. Friedman, "Connectivity and convergence: a whimsical history of internet culture," *SSRN Electronic Journal*, vol. 15, no. 43, p. 123, 2015.
- [3] M. S. Elm, "Panel discussion II: culture and media technology. Understanding and studying internet culture(s)," *Nordicom Review*, vol. 29, no. 2, pp. 85–90, 2008.
- [4] J. Y. Li and Y. H. Wang, "Spatial coupling characteristics of eco-environment quality and economic poverty in lüliang area," *Ying yong sheng tai xue bao = The journal of applied ecology*, vol. 25, no. 6, pp. 1715–1724, 2014.
- [5] Z. Xi-Yue, C. Tian, and Y. U. Hu, "Tourist behavior patterns in the ecotourism destination in the west of China: a case study of Gannan Tibetan Autonomous Prefecture," *Ecological Economy*, vol. 12, no. 01, pp. 20–31, 2016.
- [6] I. P. Astawa, N. N. Triyuni, and I. D. M. C. Santosa, "Sustainable tourism and harmonious culture: a case study of cultic model at village tourism," *Journal of Physics: Conference Series*, vol. 953, Article ID 012057, 2018.
- [7] G. Richards, B. King, and E. Yeung, "Experiencing culture in attractions, events and tour settings," *Tourism Management*, vol. 79, Article ID 104104, 2020.
- [8] L. Krupková and J. Kopecky, *Czech Music around 1900*, Boydell and Brewer, Woodbridge, United Kingdom, pp. 225–236, 2018.
- [9] [please provide complete details for this reference].
- [10] G. Wood, E. Szmuiłowicz, and K. Clepp, "Creating a village and supporting culture change: facilitating advance care planning by teaching everyone how to have an "introductory conversation" (FR453)," *Journal of Pain and Symptom Management*, vol. 53, no. 2, p. 373, 2017.
- [11] X. Zhang, E. A. Davidson, D. L. Mauzerall, D. P. Timothy, and Y. Shen, "Managing nitrogen for sustainable development," *Nature*, vol. 528, no. 7580, pp. 51–59, 2015.
- [12] R. D. Shell, "World business council for sustainable development," *World Environment*, vol. 2016, no. 4, pp. 2735–2738, 2016.
- [13] J. Martens, "Benchmarks for a truly universal post-2015 agenda for sustainable development," *Regions and Cohesions*, vol. 5, no. 1, pp. 73–94, 2015.
- [14] W. C. Clark, T. P. Tomich, M. van Noordwijk et al., "Boundary work for sustainable development: natural resource management at the consultative group on international agricultural research (CGIAR)," *Proceedings of the National Academy of Sciences*, vol. 113, no. 17, pp. 4615–4622, 2016.
- [15] O. Langhelle, "Why ecological modernization and sustainable development should not be conflated," *Journal of Environmental Policy and Planning*, vol. 2, no. 4, pp. 303–322, 2000.
- [16] S. Asongu, "Reinventing foreign aid for inclusive and sustainable development: kuznets, Piketty and the great policy reversal," *Journal of Economic Surveys*, vol. 30, no. 4, pp. 736–755, 2016.
- [17] J. D. Sachs, "Contents : the age of sustainable development," *Meta*, vol. 10, pp. 112–114, 2015.
- [18] K. Buse and S. Hawkes, "Health in the sustainable development goals: ready for a paradigm shift?" *Globalization and Health*, vol. 11, no. 1, pp. 13–18, 2015.
- [19] W. H. Organization, *World health statistics 2016: monitoring health for the SDGs, sustainable development goals*, pp. 293–328, WHO, Geneva Switzerland, 2016.
- [20] R. Lozano, K. Ceulemans, M. Alonso-Almeida et al., "A review of commitment and implementation of sustainable development in higher education: results from a worldwide survey," *Journal of Cleaner Production*, vol. 108, no. DEC.1PT, pp. 1–18, 2015.
- [21] L. O. M. D. Andrade, A. P. Filho, O. Solar et al., "Social determinants of health, universal health coverage, and sustainable development: case studies from Latin American countries," *The Lancet*, vol. 385, no. 9975, pp. 1343–1351, 2015.
- [22] T. Hák, S. Janoušková, and B. Moldan, "Sustainable Development Goals: a need for relevant indicators," *Ecological Indicators*, vol. 60, no. jan, pp. 565–573, 2016.