The Spread of Intangible Cultural Heritage in the Rural Agricultural Environment of Modern China Under the Epidemic Economic Environment

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1. Introduction

A community must protect its intangible cultural assets to maintain its history, traditions, and identity. According to Mah et al. (2019), preserving these cultural traditions and ideas is especially important in rural communities. This is because, in rural communities, these traditions and beliefs are often deeply embedded in consciousness and intangible cultural heritage. Intangible cultural legacy is the kind of heritage passed down from generation to generation, including customs, rituals, traditions, and knowledge. There is a possibility that activities such as traditional singing, dancing, telling stories, and crafting

In the rural agricultural environment, intangible cultural heritage has proved to be a resilient and essential component of community identity and well-being, especially in the face of the challenges posed by the epidemic economic environment. The preservation and celebration of intangible cultural practices, such as traditional agricultural methods, local festivals, and folk arts, provide opportunities for community connection, pride, and economic development despite the economic recession. The current financial crisis threatens China's rural agricultural communities' intangible cultural assets and long-term viability. Using awareness (as a mediator) and access to resources (as a moderator), this study examines how the expansion of intangible cultural assets and the rural agricultural environment affects preservation and sustainability in modern China's rural agricultural environments during the economic epidemic. A simple random sampling technique was used to collect information from 430 participants. Smart-PLS was employed to assess the dependability of data and the relationship between factors. The results indicate that disseminating intangible cultural heritage and the rural agricultural environment is advantageous to preserving intangible cultural heritage and the viability of rural communities. Moreover, resource access regulates and modulates this link. According to the study, increasing awareness and providing access to resources can help rural communities preserve intangible cultural assets and nurture long-term development.

Keywords: Intangible Cultural Heritage, Rural Agricultural Environment, Access to Resources, Epidemic, Economic Environment, Awareness, Sustainable Development, Rural Communities, Modern China.

will be featured. Not only are these rituals essential for the maintenance of cultural identity, but they are also essential for establishing a sense of community and belonging in people who live in rural areas. According to Lees et al. (2023), the foundation of a community's identity is often found in its intangible history. This legacy helps maintain social cohesion and provides a feeling of continuity and significance. The protection of intangible cultural assets has a positive effect, economically speaking, on rural communities. This has the potential to contribute to the growth of rural areas over the long run as well as the economy of the surrounding area.

The potential for rural towns to balance economic growth and environmental preservation is made possible by sustainability, a crucial factor for these areas. Sustainable methods ensure that the needs of the current generation are met without endangering the ability of future generations to meet their requirements (Mketo et al., 2022). For many different reasons, rural areas require sustainable practices. First, most people living in rural areas live from activities that include natural resources, such as farming and forestry. Second, many people who live in rural areas do not have access to essential resources and services such as healthcare and education. According to Cheetham et al. (2023), one of how sustainability helps solve these problems is by supporting community-driven initiatives that broaden people's access to relevant resources and services. Last but not least, people living in rural areas are frequently more vulnerable to the effects of climate change, such as changes in precipitation patterns and extreme weather events. According to Opoku, Dogah, and Aluko (2022), sustainability makes communities more resilient to climate change by encouraging activities that cut greenhouse gas emissions and boost communities' capacity to adapt to changing circumstances.

The intangible cultural heritage (ICH) of rural communities is essential to preserving their cultural identities and the cohesion of their societies. The dissemination and protection of ICH can also assist in ensuring the continued sustainability of rural communities over the long term. Rural communities can aid in the propagation and preservation of ICH by introducing tourism activities that are environmentally responsible and promote their cultural heritage. This can result in financial benefits and help preserve their intangible cultural practices and transmit those customs to tourists (Díaz-Andreu & Pastor Pérez, 2023). Creating social cohesion and enriching cultural identities within rural communities are two ways community-led initiatives to protect ICH contribute to improved sustainability. ICH has developed several methods that are closely related to the natural world. According to Shaker and Mackay (2021), the utilization of natural resources responsibly leads to the maintenance and transfer of these cultural practices to subsequent generations. Entrepreneurship in the cultural sector not only serves to disseminate and maintain ICH but also significantly contributes to the continued existence of rural communities. Rural communities have the potential to encourage the preservation of intangible cultural traditions as well as the growth of those practices by creating economic opportunities in the surrounding area (Haifeng & Xinzheng, 2022).

Farming methods used for generations are often ecologically sound and contribute to conserving regional cultural heritage. Promoting local food systems benefits rural agricultural communities since it helps preserve the communities' traditional knowledge and practices. According to Mah et al. (2019), one way to contribute to protecting intangible cultural property is through promoting and educating individuals about the consumption of regional and traditional food. When planning for land use, it is important to consider the cultural heritage of rural communities. This can be achieved in part by including the community in locating and safeguarding significant cultural

places, as well as by ensuring that decisions about land use and agricultural practices do not adversely affect these sites. An investment in sustainable agriculture benefits rural communities and is good for the environment, which supports agriculture at the same time. This can include providing farmers with training and support and promoting sustainable agricultural practices such as agroforestry and organic farming (Cetegen & Stuber, 2021).

This area of research has several open questions and certain limits that need to be solved. The lack of available empirical data is one of the major limitations of this study area, and it's also one of the most crucial. Even though there haven't been many studies conducted on the topic, the vast majority of those carried out have relied on qualitative data or case studies as their primary source of information. It is necessary to collect additional quantitative data to paint a picture that is more true to life about the distribution of intangible cultural assets in rural agricultural areas. Most studies in this field have not given enough thought to this facet of the topic, even though the impact of the global economic environment on the distribution of intangible cultural assets in rural agricultural areas is an important subject for research. There is a pressing need for additional research, particularly concerning the influence that the global economic climate has on the transmission of intangible cultural assets. Another gap in this area is underestimating government policies' role in supporting the spread of intangible cultural assets in rural agricultural settings. This is a gap in the research done in this area. Although relatively few studies have investigated government policy's role, the vast majority of these investigations have not given this component the appropriate amount of study.

The purpose of this study is to investigate the propagation of intangible cultural assets in contemporary China's rural agricultural environment while considering the impact of an epidemic economic climate. In this context, the study will investigate the elements that contribute to the dissemination of intangible cultural legacy, as well as the problems that prevent the transmission and maintenance of this asset.

- To identify and classify the different types of intangible cultural heritage present in the rural agricultural environment of modern China.
- To analyze the impact of the epidemic economic environment on the spread of intangible cultural heritage in rural agricultural communities in China.
- To investigate the factors that contribute to the spread of intangible cultural heritage in the rural agricultural environment of modern China, including the role of government policies, community organizations, and individuals.
- To identify the challenges that hinder the transmission and preservation of intangible cultural heritage in the rural agricultural environment of modern China.
- To propose strategies and recommendations to promote the spread, transmission, and preservation of intangible cultural heritage in the rural agricultural environment of modern China under the epidemic economic environment.

The investigation into the transmission of intangible cultural legacy in modern China's rural agricultural setting within the context of pandemic economic conditions offers a significant contribution in various ways. To begin, it provides a comprehensive analysis of the contemporary condition of intangible cultural assets in the rural agricultural environment of modern China. In the context of the current economic climate, this analysis sheds insight into the myriad factors that influence the propagation and preservation of intangible cultural assets. Second, it analyzes how economic factors such as poverty, unemployment, and the decline of traditional agricultural techniques affect the transmission and preservation of intangible cultural assets. These factors include conventional agricultural techniques. Thirdly, the study gives light on the policies that may be implemented to foster the growth and maintenance of intangible cultural assets in the modern agricultural context of rural China. This is an important contribution to the field. These efforts include deploying cultural education programs, using digital technologies to document and convey cultural information, and developing tourism projects showcasing rural farming communities' distinct cultural history.

2. Literature Review and Hypotheses Development

Spread of Intangible Cultural Heritage on Preservation of Intangible Cultural Heritage in Rural Communities

The expansion of Intangible Cultural Heritage (ICH) can affect the preservation of ICH in rural communities by fostering greater knowledge and interest in activities that are considered to be customary. According to Tzima et al. (2020), promoting ICH through festivals, museums, and other cultural events can enhance awareness of the relevance of traditional practices and the necessity for preserving their heritage. This may result in increased support for local efforts to conserve and transmit ICH and the passage of legislation and programs to assist these efforts. Additionally, this may lead to increased support for local efforts to preserve and transmit ICH. The preservation of ICH in rural communities is negatively impacted by the spread of ICH, which has a negative influence overall. According to Zheng (2023), the commercialization and commodification of ICH may result in the dilution of the concept and a loss of its originality. This is an especially severe issue in rural areas, as traditional ways of life there are less well known and therefore more susceptible to being influenced by outside forces. According to Arcos-Pumarola, Paquin, and Sitges (2023), the proliferation of ICH can commonly result in arguments between several communities or groups regarding ownership and control of cultural traditions. One strategy for reducing the impact of these unintended consequences is to involve local populations in the marketing and distribution of ICH. Community-based projects involving local people in the documentation and transmission of ICH can help maintain its validity and sustainability, as Quintero-Angel, Mendoza-Salazar, and Martinez-Giron (2022) noted. These projects can help to keep ICH alive and well. According to Halder and Sarda (2021), including members of the local community in planning and organizing cultural events is one way to ensure that members of the community's viewpoints and needs are considered.

H1: The spread of intangible cultural heritage significantly impacts the preservation of intangible cultural heritage in rural communities.

Spread of Intangible Cultural Heritage and Sustainability in Rural Communities

It is essential for the social, cultural, and economic growth of rural communities to preserve their intangible cultural heritage (ICH). According to Barrientos et al. (2021), ICH fosters a sense of identity and belonging among community members, leading to increased social cohesion and deeper ties within the community. According to Chen, Suntikul, and King (2020), ICH brings in cash for rural areas through tourism and the sale of cultural artifacts. The ICH can be transmitted through several pathways, such as the internet, the media, and migration (Sanchez et al., 2023). The rising use of technology has made it possible for ICH to reach a bigger audience, which in turn provides opportunities for rural communities to display their cultural heritage globally. However, the development of ICH may result in the appropriation of cultural practices and the commercialization of traditional activities, both of which may have an adverse effect on the livelihood of rural communities. The increasing prevalence of ICH can potentially impact, for better or worse, rural communities' long-term viability. On the one hand Chen, Suntikul, and King (2020), found that promoting ICH can increase tourism and economic opportunities for rural communities. Preserving cultural artifacts and musical styles, for instance, can aid the local economy while providing employment opportunities. However, the expansion of ICH may result in the loss of traditional knowledge and practices due to the practices' increasing commercialization and adaptation to satisfy the expectations of tourists.

H2: The spread of intangible cultural heritage significantly impacts sustainability in rural communities.

3. Rural Agricultural Environment and Preservation of Intangible Cultural Heritage in Rural Communities

According to Moser et al. (2021), the cultural history of rural communities is intrinsically linked to agricultural practices. Agricultural techniques such as crop rotation, animal husbandry, and seed selection are examples of practices frequently handed down from one generation to the next and constitute a large part of the cultural character of rural communities (Shen et al., 2022). The preservation of ICH in agriculture contributes to the sustainability of rural communities by assisting in developing local food systems and maintaining traditional agricultural methods. In rural areas, the agricultural environment may have an effect, either for the better or for the worse, on how ICH is preserved. On the other hand, using traditional agricultural practices can help create an environment that is more amenable to the preservation of ICH. According to Ouassanouan et al. (2022), traditional irrigation and soil

management methods help maintain the ecological balance of agricultural areas, which is essential for the upkeep of ICH

On the other hand, contemporary agricultural practices, such as the use of monoculture farming and pesticides, have the potential to have a detrimental effect on the conservation of ICH (Sgroi, 2022). It is also essential to have agricultural extension programs to protect ICH in rural communities. By incorporating ICH into their programming, agricultural extension agents can contribute to disseminating information regarding the significance of cultural heritage in agriculture and the promotion of traditional farming practices (Teza, Trevisani, & Pesci, 2019). In addition, agricultural extension agencies can provide farmers with technical assistance in protecting ICH. This assistance may include guidance on seed selection and soil management techniques.

H3: Rural agricultural environment significantly impacts the preservation of intangible cultural heritage in rural communities.

Rural Agricultural Environment and Sustainability of Rural Communities

The sustainability of rural communities is affected in various ways-both positively and negatively-by agricultural activity in rural areas. Creating new employment opportunities and potential sources of revenue is one positive outcome of this. According to Jamshidi, Imani, and Delavar (2022), agriculture offers employment opportunities to many rural populations. As a result, agriculture contributes to the reduction of poverty and the development of livelihoods. In addition, agriculture makes a major contribution to the surrounding area's economy and has the potential to facilitate the growth of other industries, such as tourism (Sgroi, 2022). The rural agricultural environment may also have a detrimental effect on the continued viability of the rural community. There is a significant problem with the deterioration of natural resources like land, water, and biodiversity. Inappropriate use of natural resources in agricultural practices can lead to soil erosion, water pollution, and biodiversity loss, as stated in the research conducted by Patra et al. (2022). This has the potential to have long-term implications for the health and well-being of rural communities and the economic viability of agriculture as a sector of employment. The effects of climate change on agricultural practices in rural areas are still another concern. According to Seijger and Hellegers (2023), climate change can affect agricultural production through temperature and precipitation patterns and an increase in extreme weather events such as floods and droughts. In addition, these changes can impact the frequency of these types of weather occurrences. These advances have the potential to have huge economic and social repercussions for rural communities, particularly those whose primary source of income is agriculture. In particular, these trends have the potential to have an impact on rural communities in the United States.

H4: Rural agricultural environment significantly impacts sustainability in rural communities.

Awareness and Preservation of Intangible Cultural Heritage in Rural Communities"

The general public's education is absolutely necessary to maintain ICH in rural communities. According to Tzima et al. (2020), the active participation of community people who realize the significance of their cultural heritage is frequently necessary to preserve ICH. Communities that are ignorant of the significance of ICH may not prioritize its preservation or may even actively attempt to eliminate it if they have the opportunity. In addition, raising awareness can play a role in reducing the risk of ICH being passed down from generation to generation. According to Rahmani and Tienken (2022), the active participation of community members who realize the significance of their cultural heritage is necessary to transmit ICH. Through implementing education and awareness programs, communities can contribute to the continuation and expansion of ICH. In addition, awareness can result in the formation of preservation efforts that are driven by the community. According to Trichopoulou (2021), community-based methods to preserve ICH can be useful in rural communities, which are characterized by traditional cultural practices closely related to the surrounding natural environment. The durability of a community's cultural heritage can be ensured by increasing awareness of the importance of preserving it and enlisting the participation of community members in the planning of preservation initiatives. A key obstacle to the continued operation of ICH can also be a lack of awareness of its existence. According to Masoud, Mortazavi, and Farsani (2019) findings, an increase in urbanization and rural globalization may decrease understanding of the significance of traditional cultural activities. This has the potential to undermine ICH and reduce support for the institution's continued existence.

H5: Awareness significantly and positively impacts the preservation of intangible cultural heritage in rural communities

Awareness and Sustainability of Rural Communities

Awareness levels have a significant bearing on whether or not rural towns can remain economically viable Martin et al. (2021), note, increasing people's understanding of concerns related to sustainability supports adopting sustainable practices in industries that rely on natural resources such as agriculture, forestry, and others. By encouraging people to engage in environmentally responsible practices, communities may ensure the continued availability of natural resources and protect the financial security of their way of life. As a result of increasing awareness, community-driven sustainability actions are designed and implemented. According to Mihardja et al. (2023), efforts pushed by the community are frequently more successful than top-down strategies when creating sustainability. By involving community members in developing sustainability initiatives, communities can increase the likelihood that these initiatives will be tailored to the specific requirements and constraints of their particular setting. Awareness also helps to promote the conservation of biodiversity and the protection of natural resources. According to Giacomarra et al. (2021), increasing one's understanding of the significance of the natural world's biodiversity and resources can help preserve and protect these things. This, in turn, can help ensure that these resources will be accessible to generations in the future.

H6: Awareness has a significant and positive impact on the sustainability of rural communities.

Awareness as Mediator

The importance of acknowledging ICH can pave the way for its protection and formulation strategies for its transmission to subsequent generations. In addition, increasing awareness resulted in the creation of encouraging policies and initiatives that promote the preservation of ICH. The study by Masoud, Mortazavi, and Farsani (2019) found that the transmission of ICH positively impacts the preservation of it in rural people. The increased availability of ICH has led to a heightened understanding of its value and relevance, resulting in increased preservation efforts. According to Gao and Dietze-Schirdewahn (2018), the expansion of ICH is also responsible for developing new cultural products and services, which might benefit rural communities economically.

H7a: Awareness mediates the relationship between the spread of intangible cultural heritage and the preservation of intangible cultural heritage in rural communities

Rural communities' success, in the long run, depends heavily on their ability to raise awareness. According to Zikargae, Woldearegay, and Skjerdal (2022), an increase in one's understanding of the importance of ICH can lead to a rise in one's efforts to protect it, contributing to rural communities' economic and cultural sustainability. The proliferation of ICH has the potential to be beneficial to the continued existence of rural communities potentially. According to Yong (2021), implementing ICH has the potential to boost cultural tourism, which in turn can help economically disadvantaged rural communities. In addition, the implementation of ICH has the potential to enhance the cultural identities of rural communities, which in turn can strengthen social cohesion and community resilience.

H7b: Awareness mediates the relationship between the spread of intangible cultural heritage and sustainability in rural communities

It is essential for ICH's continued existence to maintain rural agricultural settings. According to Luh, Chang, and Hsieh (2023), traditional farming techniques, natural resources, and cultural landscapes provide the conditions for the sustainable transmission of ICH in rural agricultural settings. This is the case since these factors all affect the environment. Rural agricultural settings have the potential to be catalysts for the growth of environmentally conscious tourism, which in turn can contribute to the economic viability of rural communities. Increasing awareness is another crucial step toward protecting ICH in rural communities. According to López-Fernández et al. (2021), an improved understanding of the value of ICH can lead to increased efforts to conserve it, adding to the cultural and

economic sustainability of rural communities. This is the case because improved knowledge of the value of ICH can lead to increased attempts to conserve it. Raising people's levels of consciousness can help formulate strategies that, over time, will facilitate the transmission of ICH from one generation to the next. According to Nguyen and Drakou (2021), understanding the value and significance of the rural agricultural environment can help mediate the connection between the rural agricultural environment and the upkeep of ICH. Growing awareness of the importance of the rural agricultural environment may prompt the creation of farming methods that are more environmentally friendly, which in turn may contribute to the protection of ICH.

H7c: Awareness mediates the relationship between the rural agricultural environment and the preservation of intangible cultural heritage in rural communities

A rural community's ability to maintain itself throughout time is directly correlated to its ability to appreciate the worth and significance of the agricultural environment in which it exists. According to Rotolo et al. (2022), when farmers have a better grasp of sustainable agricultural techniques' environmental and economic benefits, this can lead to a higher adoption rate of these methods, which can help the long-term sustainability of rural communities. The rural agricultural environment and the social sustainability of rural communities can benefit from increased awareness, which can also serve as a bridge between the two. Knowledge of the significance of community participation and collaboration can lead to forming social networks and collective action groups, which can contribute to the social sustainability of rural communities, as indicated by Ardoin, Bowers, and Gaillard (2020). This knowledge can be useful in ensuring that rural communities continue to exist. Some scholars in the academic community have also highlighted the role of awareness in mediating the rural agricultural environment and the economic viability of rural inhabitants. According to Baloch et al. (2023), a better awareness of the value of local resources and products can lead to increased support for local enterprises and marketplaces, which in turn can assist in ensuring the economic viability of rural areas.

H7d: Awareness mediates the relationship between the rural agricultural environment and the sustainability of rural communities.

Access to Resources as a Moderator

In addition, research has been done to study the role that the availability of resources plays as a mediator between ICH awareness and preservation in rural areas. In their research on the maintenance of traditional culture Vázquez-Delfin, Casas, and Vallejo (2022), found that the availability of resources, such as money and infrastructure, had a significant impact on the amount of effort put forth by rural communities to maintain their cultural heritage. They propose that increasing the availability of resources could boost the influence measures taken to raise awareness have on the preservation of ICH. Similar to what was found by López-Fernández et al. (2021) in their research on the preservation of traditional crafts, it was found that having access to resources, such as markets and

raw materials, was essential to the preservation of ICH. In addition, there is a lot of friction in the connection between the availability of resources and the preservation of ICH. It is dependent on the kinds of resources that are available and their levels of quality. In their research on the preservation of traditional fishing practices, Parlee et al. (2021) found that access to modern fishing equipment and methods negatively influenced the preservation of traditional fishing practices. They suggest that if enough resources are made available, such as traditional fishing gear and techniques, it would be possible to help conserve ICH.

H8a: Access to resources moderates the relationship between awareness and preservation of intangible cultural heritage in rural communities.

The relationship between the knowledge of rural communities and the ability to sustain themselves is moderated by the availability of resources. Rural communities with access to resources are more likely to adopt sustainable practices (Sgroi, 2022). This is true even

if the populations are uninformed of the long-term benefits associated with the activities. This is because rural communities have access to resources, allowing them to apply sustainable practices without having to overcome significant financial or logistical obstacles. Rural communities, on the other hand, may have a more difficult time adopting sustainable practices, even if they are aware of the benefits that these practices will have in the long run (Menandro & Arnab, 2020). This results from insufficient financial or logistical resources to put sustainable principles into action. As a consequence of this, the availability of resources is an extremely important moderating factor in the connection between rural community awareness and long-term viability.

H8b: Access to resources moderates the relationship between awareness and sustainability of rural communities.

Thus, based on the above literature and discussion, we proposed the following conceptual framework, which is shown in Figure 1

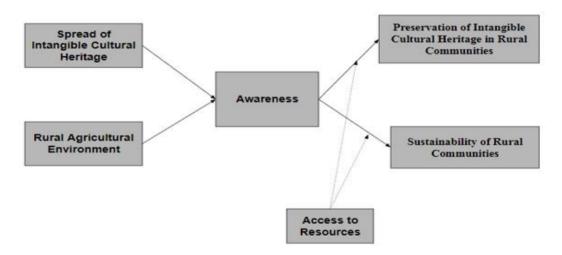


Figure 1: Conceptual framework

4. Methodology

This study utilized a cross-sectional research strategy, which required collecting data from a selection of rural areas as its participants. As the major method for gathering information for the study, a questionnaire in the form of a survey was employed. The questionnaire for the survey was created so that data variables could be collected. The appropriate number of participants for this study was calculated using the G*Power software using the following parameters: a medium effect size, a power of 0.80, and an alpha level of 0.05. The bare minimum for the sample size required is 200 using convenience sampling. The questionnaire for the study was distributed to 430 participants through the use of Internet surveys. The online poll was disseminated via email and several social media channels to get more people's attention.

Measures

The questionnaire for the survey had scales adapted from previously validated measures found in the literature. A

five-item scale that was taken from (DeSoucey, Elliott, & Schmutz, 2019) was used to measure the dissemination of intangible cultural assets. A five-item scale that was taken from (Stapleton et al., 2019) was used to evaluate the degree to which intangible cultural heritage is preserved in rural communities. The long-term viability of rural communities was assessed using a five-point scale adapted from Kapsalis (2022). The rural agricultural environment was evaluated using a five-point scale adapted from Enticott et al. (2022). The availability of resources was assessed using a five-point scale adapted from Endris et al. (2022). The five-item scale developed by (Aktürk, 2022) served as the basis for measuring awareness. Cronbach's alpha and confirmatory factor analysis were used to conduct tests to determine the reliability and validity of the measures. The analysis results of the data obtained from the survey questionnaire were generated using structural equation modeling (SEM) and the program SmartPLS. SEM was utilized to test the relationships between the variables, as well as to evaluate the mediating role of awareness and the moderating role of access to resources in the relationship between the spread of intangible cultural heritage and the rural agricultural environment on the preservation of intangible cultural heritage and sustainability in rural communities.

5. Results

6. Reliability and Validity

Individual Item Reliability

Analyzing the individual item's dependability examines the study project items' internal consistency and reliability. It demonstrates how well one item may measure the same construct in various contexts and with various measurements. The SmartPLS team suggests setting item dependability thresholds at least equal to 0.4. It provides a reliable measurement of the target construct. Table 1 demonstrates the reliability of the items.

Composite Reliability

The latent variable's internal consistency and reliability are measured by the Composite Reliability (CR) statistic. It denotes the degree to which the components of a construct measure the same concept. To demonstrate good construct

reliability and consistent assessment by its items, the threshold value for the SmartPLS CR should be more than or equal to 0.7. The CR is listed in Table 1.

Convergent Validity (AVE)

Convergent validity, also known as average variance extracted (AVE), is a measurement that determines how well many indicators (items) evaluating the same latent idea agree with one another. The average variance extracted (AVE) compares the variance explained by the construct and the variance not defined by the common underlying idea. SmartPLS recommend an AVE criterion of at least 0.5. This threshold indicates that the assessed construct explains at least fifty percent of the variance in the indicator. Raise the current value of the threshold. The AVE is presented in Table 1.

Cronbach's Alpha

Cronbach's alpha is a statistical tool that evaluates a research endeavor's internal consistency and dependability. It demonstrates how accurately the different parts of a scale judge the same construct. A Cronbach's alpha score of 0.7 or higher indicates that the data is reliable and consistent. The reliability and validity of the constructs are presented in Table 1.

Table 1: Construct Reliability and Validity

	Items	Outer Loading	Cronbach's Alpha	CR AVE
Awareness	A1	0.892	0.838	0.889 0.622
	A2	0.569		
	A3	0.696		
	A4	0.866		
	A5	0.869		
Access to Resources	AR1	0.884	0.802	0.868 0.581
	AR2	0.906		
	AR3	0.799		
	AR4	0.698		
	AR5	0.419		
	PICHRC1	0.699	0.833	0.879 0.595
Preservation of Intangible Cultural Heritage in Rural Communities	PICHRC2	0.661		
	PICHRC3	0.863		
	PICHRC4	0.826		
	PICHRC5	0.788		
Dural Agricultural Environment	RAE1	0.864	0.855	0.896 0.633
Rural Agricultural Environment	RAE2	0.778		
	RAE3	0.799		
	RAE4	0.749		
	RAE5	0.783		
	SIICH1	0.875	0.910	0.932 0.733
Spread of Intangible Cultural Heritage	SIICH2	0.836		
	SIICH3	0.874		
	SIICH4	0.851		
	SIICH5	0.844		
Sustainability of Bural Communities	SRC1	0.657	0.757	0.836 0.505
Sustainability of Rural Communities	SRC2	0.683		
	SRC3	0.733		
	SRC4	0.745		
	SRC5	0.730		

Discriminant Validity

The ability of a research model to discriminate between two or more different constructs is evaluated using a discriminant validity metric. This demonstrates the extent to which the questions or measures intended to test one construct assess a model construct. The square root of the AVE for each construct is compared to the component correlations, as determined by Fornell-Larcker. To demonstrate discriminant validity, the square root of the AVE for a construct needs to be higher than its correlation with the other components of the model. The discriminant fact is shown in Table 2.

	Α	AR	PICHRC	RAE	SIICH	SRC
Awareness	0.789					_
Access to Resources	0.560	0.762				
Preservation of Intangible Cultural Heritage in Rural Communities	0.176	0.189	0.771			
Rural Agricultural Environment	0.387	0.577	0.435	0.796		
Spread of Intangible Cultural Heritage	0.079	0.003	0.486	0.393	0.856	
Sustainability of Rural Communities	0.347	0.461	0.001	0.363	0.117	0.711

One of these methods is called the heterotrait-monotrait (HTMT) ratio of correlations, and SmartPLS 4 provides access to it. This approach involves comparing the correlation between the individual components of both constructs to the

correlation between the two constructs. It is feasible to ascertain whether or not discriminant validity has been established by contrasting the HTMT ratio with the value of 0.9. The findings of the HTMT are presented in Table 3.

Table 3. Discriminant Validity (HTMT)

	Α	AR	PICHRC	RAE	SIICH	SRC
Awareness						
Access to Resources	0.676					
Preservation of Intangible Cultural Heritage in Rural Communities	0.216	0.326				
Rural Agricultural Environment	0.439	0.668	0.488			
Spread of Intangible Cultural Heritage	0.097	0.313	0.529	0.443		
Sustainability of Rural Communities	0.433	0.594	0.126	0.426	0.166	

Coefficient of Determination and Q2

A statistical measure of the variation in the dependent variable that can be assigned to the independent variables in a regression model is referred to as the coefficient of determination, also referred to by its squared form, R squared. This percentage is expressed by a statistic known as "R-squared," which can be found in the table. R squared values, which can range from 0 to 1, reflect how well the independent variables can explain the variance in the dependent variable. Larger R-squared values indicate a greater ability of the independent variables to do so. The values of R2 are detailed in the table that follows.

On the other hand, Q2 assesses a model based on how helpful it will be in the years to come. How well a model can anticipate new observations that weren't considered when the model was being created is a good indicator of how well the model can adapt to new knowledge. The quantifier Q2 (Q2) can be anywhere between -1 and 1, with larger values indicating greater predictability of the model. Table 4 outlines both R2 and Q2 for your perusal.

Table 4: R-square and Q square

	R-square	Q2
Awareness	0.156	0.147
Preservation of Intangible Cultural Heritage in Rural Communities	0.340	0.283
Sustainability of Rural Communities	0.292	0.246

7. Structural Model

The H1 relationship's findings, which indicated that the spread of intangible cultural heritage significantly impacts the preservation of intangible cultural heritage in rural communities, support this hypothesis (t=8.401, P=0.040). According to the H2 relationship's findings, the hypothesis that the spread of intangible cultural heritage significantly impacts sustainability in rural communities is accepted (t=4.664, P=0.000). According to the H3 relationship's findings, the rural agricultural environment significantly impacts the preservation of intangible cultural heritage in rural communities (t=4.315, P=0.000).

According to the H4 relationship's findings, the rural agricultural environment significantly impacts sustainability in rural communities (t = 4.302, P = 0.000). According to the H5 relationship's findings, awareness significantly and positively impacts preserving intangible cultural heritage in rural communities. (t = 1.786, P = 0.037). According to the H6 relationship's findings, the hypothesis that awareness has a significant and positive impact on the sustainability of rural communities is accepted (t = 2.151, P = 0.016).

Table 5. Direct effects

Constructs	Path coefficient	t-statistics	p-values
SIICH -> PICHRC	0.344	8.041	0.000
SIICH -> SRC	0.211	4.664	0.000
RAE -> PICHRC	0.295	4.315	0.000
RAE -> SRC	0.249	4.302	0.000
A -> PICHRC	0.088	1.786	0.037
A -> SRC	0.096	2.151	0.016

To determine if awareness mediated the relationships between the Spread of Intangible Cultural Heritage and Preservation of Intangible Cultural Heritage in rural communities, and the Spread of Intangible Cultural Heritage and Sustainability in Rural Communities. the mediating effect of green consumption behavior was examined ($\beta=0.008$, t=1.282, p=0.100: $\beta=0.008$, t=1.469, p=0.071). It was determined whether the associations between Rural Agricultural Environment and Preservation of Intangible Cultural Heritage in Rural Communities and Rural Agricultural Environment and Sustainability of Rural Communities were mediated by the awareness ($\beta=0.037$, t=1.646, p=0.050: $\beta=0.040$, t=2.125, p=0.017). (As shown in Table 6)

Table 6. Mediation Analysis

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Constructs	Path coefficient	t-statistics	p-values
SIICH -> A -> PICHRC	0.008	1.282	0.100
SIICH -> A -> SRC	0.008	1.469	0.071
RAE -> A -> PICHRC	0.037	1.646	0.050
RAE -> A -> SRC	0.040	2.125	0.017

To determine if access to resources moderates the relationships between the awareness and Preservation of Intangible Cultural Heritage in rural communities, and awareness and Sustainability in Rural Communities. the moderating effect of access to resources was examined (β = 0.160, t = 3.850, p 0.000: β = 0.106, t = 3.011, p = 0.001). (As shown in Table 7)

Table 7. Moderation Analysis

Constructs	Path coefficient	t-statistics	p-values
AR x A -> PICHRC	0.160	3.850	0.000
AR x A -> SRC	0.106	3.011	0.001

8. Discussion

The first thing that needs to be examined is how the preservation of intangible cultural heritage in rural communities is affected by the spread of intangible cultural property. The rapid industrialization of civilizations has led to a decline in ICH, particularly in rural regions (Wilkinson, 2020). This trend is particularly pronounced in the United States. The rise of ICH has made it possible for people living in rural areas to share their cultural activities with a wider audience. Rural communities have the opportunity to preserve their heritage and generate revenue through tourism by sharing the cultural practices that make up their ICH with visitors. The proliferation of ICH has the potential to facilitate the growth of pride and a sense of identity in rural communities. According to Stapleton et al. (2019), rural groups are commonly made to feel inferior to metropolitan areas and are hence marginalized. People have the potential to have feelings of pride in their cultural practices if ICH is preserved and appreciated. The increasing prevalence of ICH may increase younger generations' awareness of ICH practices and their appreciation of those practices. According to Xiao et al. (2023), the younger generation in many rural communities is typically more interested in current approaches and may consider ICH procedures obsolete and archaic. By displaying ICH customs to a larger audience, on the other hand, younger generations can be made aware of the splendor and relevance of their cultural legacy. This can be accomplished through the ICH.

The second hypothesis is to research the influence that the dissemination of intangible cultural assets has on the viability of rural communities. Transiting intangible cultural heritage can significantly benefit rural communities' viability by serving as a source of social cohesion, economic opportunity, and environmental conservation. According to Arcos-Pumarola, Paquin, and Sitges (2023), ICH can foster a sense of belonging and identity within a community, contributing to the growth of the community as a whole. Traditional forms of expression like music, dancing, and oral storytelling play an essential role in many rural communities and bring residents together for cultural celebrations and events. According to Luchoro-Parrilla et al. (2021), the promotion of intangible cultural assets can improve social inclusion and empower marginalized groups, particularly young people and women. Second, ICH helps to sustain local livelihoods by creating economic opportunities and contributing to their maintenance. According to Halder and Sarda (2021), traditional knowledge and practices have the potential to provide income for rural communities through the commercialization of traditional goods and services.

In conclusion, ICH contributes to the preservation of the environment and the management of resources. According to Lees et al. (2023), ecological techniques and knowledge that have been around for a long time, such as agroforestry, soil conservation, and water management, can provide long-term solutions to environmental challenges. In addition, conserving traditional landscapes, biodiversity, and cultural heritage places contributes to the preservation of natural resources and encourages the development of tourism that does not harm the environment.

The third hypothesis is to examine rural agricultural settings' influence on the maintenance of intangible cultural assets in rural communities. According to Serra-Majem and Medina (2020), the rural agricultural environment substantially impacts the preservation of rural communities' intangible cultural heritage. The intangible cultural legacy of a community consists of the customs, traditions, and knowledge that, over time, have been handed down from one generation to the next and have helped shape its cultural identity. Agriculture is frequently a fundamental component of the identity of a rural community, and it also plays an essential part in protecting intangible cultural assets (Vázquez-Delfin, Casas, & Vallejo, 2022). Traditional farming practices, including the passing down information, beliefs, and rituals from one generation to the next, are inextricably intertwined with agriculture. To maintain cultural diversity and foster sustainable development, the conservation of cultural assets that are not tangible is of the utmost importance. Rural communities can contribute to sustainable agriculture and biodiversity protection if they maintain their traditional ways of life and knowledge (Tang et al., 2023). This, in turn, adds to the community's general wellbeing, which includes issues relating to the economy and the social and environmental environments.

Investigating the influence of rural agricultural environments on the long-term viability of rural communities constitutes the fourth hypothesis. Agricultural operations are extremely important to expanding economic prospects and enhancing the quality of life in rural areas. According to Shabir et al. (2023), sustainable agricultural practices can play a role in protecting the natural environment and maintaining biological diversity, both of which are essential to the continued existence of rural communities. In rural areas, the agricultural industry helps alleviate poverty and ensures that people have access to food. According to Yue and Guo (2021), conservation agriculture, for instance, has the potential to both boost crop yields and enhance the general health of the soil. This, in turn, can provide financial benefits to farmers and contribute to the sustainable growth of rural areas. A large amount of progress toward gender equality and social inclusion has been made in rural regions as a result of rural agricultural activities. According to Bryan and Mekonnen (2023), women play a crucial role in agricultural operations. Because of this, empowering women can result in more sustainable and resilient rural communities.

Investigating the influence of awareness on the conservation of intangible cultural heritage in rural communities is the fifth hypothesis that will be tested. To

preserve intangible cultural heritage (ICH), rural communities must raise awareness of the issue. According to Masoud, Mortazavi, and Farsani (2019), ICH has a vital role in forming cultural identity and social cohesion, particularly in rural areas, where it is regularly and deeply engrained in daily life. When people become aware of the significance of the cultural practices that are important to them, they are more likely to take measures to preserve such practices and pass them on to subsequent generations. It is standard practice in many rural communities to pass on ICH through oral traditions; nevertheless, there is a danger that this practice will be lost if newer generations move to urban areas or adopt new ways of life (Castro. 2021). When local communities become aware of the imminent loss of their cultural heritage, they may develop programs to document and record their traditions and take steps to document and record them (Boyd, 2020). In addition, they may take steps to transfer these traditions to future generations. In addition, increasing awareness helps promote ICH's economic significance, particularly in rural regions where traditional crafts and practices are typically strongly tied to local livelihoods. This is especially true regarding the importance of ICH in the context of ICH. According to Hernández-Rojas, Huete-Alcocer, and Hidalgo-Fernández (2022), communities that profit from tourism efforts that promote local ICH can also contribute to preserving the communities' cultural history.

The sixth hypothesis is Investigating the influence of awareness on rural communities' ability to be sustainable. Increasing people's knowledge is important in encouraging sustainable development in rural communities. According to Tzima et al. (2020), sustainable development requires the integration of social, economic, and environmental variables. This integration, in turn, calls for a comprehensive understanding of communities' challenges and opportunities. Through increased knowledge, rural communities can become more conscious of their impact on the surrounding natural environment and the importance of preserving natural resources. This can result in implementing sustainable practices such as the conservation of biodiversity, the reduction of waste, and the use of renewable energy. In addition, increasing people's understanding may incentivize rural communities to take steps toward enhancing their economic standing (Panzer-Krause, 2020). By recognizing the possibilities of ecotourism and organic farming as examples of sustainable lifestyles, communities can generate income that helps both the environment and the people in the community. A heightened awareness can also benefit rural communities' social viability.

This investigation aims to test a hypothesis about the impact of awareness on the relationship between the dissemination of intangible cultural heritage and the preservation of that heritage in rural communities. The expansion of intangible cultural assets can have various effects on conservation, although increased awareness can act as a buffer against these effects. According to Rahmani and Tienken (2022), disseminating intangible cultural assets can sometimes result in changing or eliminating traditional ways of doing things, beliefs,

and bodies of knowledge. This is especially true when communities face external influences such as globalization and industrialization.

This investigation aims to test the hypothesis that there is a moderating relationship between the dissemination of intangible cultural heritage and the viability of rural communities. The mediation of the relationship between the transfer of intangible cultural assets and the viability of rural communities relies heavily on awareness as an essential component. According to Waites et al.'s research from 2019, when members of a community understand the significance of their cultural heritage, they are more likely to take measures to ensure that it is maintained. This can include encouraging traditional materials and methods in local industries, funding cultural events and festivals, and instructing younger generations in traditional customs. At the same time, increasing knowledge can assist in ensuring that the diffusion of intangible cultural assets does not negatively impact long-term viability (Li, 2021). Increased awareness leads to a greater grasp of the environmental effects of previous behaviors and the necessity of adopting alternative and more sustainable methods (Trichopoulou, 2021). In addition, it has the potential to encourage debate among the many subgroups within the community, including those with contrasting opinions regarding the significance of cultural heritage.

This research aims to study the impact of awareness on the mediating relationship between rural agricultural environments and the preservation of intangible cultural heritage in rural communities. According to Spadijer (2022), raising awareness is essential in mediating the link between the rural agricultural environment and the protection of ICH. In particular, increasing awareness among rural communities about the significance and worth of their intangible cultural heritage may make it possible to assist these communities in better appreciating, preserving, and passing on these traditions to subsequent generations. This can be accomplished through educating people about the significance and value of their intangible cultural heritage. Education and training programs that teach young people about their cultural heritage are one type of cultural awareness that can take many different forms (Aktürk, 2022). Another type of cultural awareness can be public events and festivals that honor local customs and traditions. Rural communities may be better able to withstand the demands of modernity and change if they enhance their awareness in the ways described above (Enticott et al., 2022). This would allow rural communities to maintain their unique cultural identities over time.

Investigating the impact of awareness as a mediator between rural agricultural environments and the long-term viability of rural communities is the purpose of this particular hypothesis. It is essential to have the awareness to successfully mediate the relationship between the rural agricultural environment and the long-term viability of rural communities. The rural agricultural environment provides vital supplies and opportunities for people living in rural areas to make a living, and maintaining this environment sustainably is essential to these communities' long-term existence (Vu & Goto, 2020). Rural

communities are responsible for educating themselves on the significance of environmentally responsible activities and the effects of environmental deterioration on the rural agricultural environment. According to Anaduaka et al. (2023), increasing awareness can benefit from educational and community outreach programs. According to Jato-Espino and Mayor-Vitoria (2023), when people in rural communities understand the importance of sustainable practices, they are more likely to adopt those practices, leading to improved rural agriculture management.

This investigation aims to test a hypothesis about the impact of rural community access to resources on the relationship between awareness and the preservation of intangible cultural assets. Access to resources is a significant factor that weighs significantly on the relationship between rural community members' understanding of intangible cultural assets and their preservation. According to Rojas and Benakli (2020), efforts to raise awareness and safeguard cultural assets in remote areas might be thwarted by a lack of access to resources like money, technology, and education. On the other hand, having access to these materials can increase one's awareness of intangible cultural assets and help in the preservation process. Word of mouth and hands-on experience are two of the most common ways rural communities ensure that their cultural traditions are preserved for future generations (Christodoulakis, Vidal Carulla, & Adbo, 2021). It can be difficult for community people to adequately know and value the significance of their cultural history if they do not have access to education and training opportunities. According to Rahn, Linzmeier, and Winchell (2023), an effective technique to encourage the preservation of cultural heritage is to raise knowledge about the importance of doing so through the participation of the community in cultural activities.

This investigation aims to test the moderating impact of access to resources on the relationship between rural community awareness and community sustainability. The degree to which residents of rural towns have access to various resources can determine the viability of those settlements. According to Tzima et al. (2020), having access to resources, in particular, has the potential to change the relationship between environmental awareness and environmentally responsible behavior. When it comes to putting sustainable principles into action, rural communities are better able to do so when they have access to resources such as funding, technology, and infrastructure. Under these conditions, raising awareness can play a more significant part in promoting sustainable practices because the community possesses the resources necessary to make the necessary changes (Buckland & Campbell, 2021). It is essential to close the resource gap in many rural regions if there is any hope of achieving sustainability over the long run. These may include projects that provide funding, technology, and infrastructure to support environmentally friendly activities. In addition, it may include campaigns of education and awareness directed especially toward rural communities to encourage the adoption of environmentally friendly behaviors (Birkeland & Li. 2019).

Theoretical and Practical Implications

The ongoing financial crisis has rekindled people's interest in old ways of doing things, particularly in more rural parts of the country. As a direct consequence of this, the intangible cultural traditions of these communities now have the opportunity to be preserved and enhanced. This can be accomplished through activities such as festivals, workshops, and training programs that assist in passing on one generation's knowledge and abilities to the subsequent generation. The promotion of intangible cultural treasures can have a favorable effect on the economy. Craft tourism and other practice tourism, for instance, can open up new revenue streams for those living in rural areas. As a result, this has the potential to benefit the economy of the surrounding areas and support the continuation of cultural traditions. It is also possible for the promotion of intangible cultural heritage to positively influence society. It has the potential to bring different communities closer together and to cultivate a sense of pride and identity that is shared by all. As a consequence of this, social cohesion and a feeling of belonging may become even stronger.

In the setting of modern China's rural agricultural landscape, the development of intangible cultural assets emphasizes the requirement of cultural preservation. It underscores the necessity of recognizing and valuing old habits and knowledge, particularly in light of the advances that have taken place in both the economic and social spheres. The value of cultural diversity is brought to light by initiatives that promote intangible cultural assets. This demonstrates the significance of passing a diverse array of cultural practices and knowledge structures to future generations. Within the framework of contemporary rural agriculture in China, the promotion of intangible cultural heritage emphasizes the importance of identity and belonging. It underlines the significance of cultural activities and the acquisition of cultural information in forming our identities and instilling a sense of community belonging.

Limitations

The exclusive focus of this research project will be the dissemination of intangible cultural assets in China's modern agricultural countryside, which is placed as it is within the backdrop of an epidemic economic climate. It is possible that the findings cannot be generalized to other cultural or economic contexts due to the differences that exist between them. The study relies on the data the participants self-report, which may or may not be free from bias and may or may not accurately reflect the situation as it truly stands. This study did not look at government policies' role in promoting the transmission of intangible cultural assets in rural areas; therefore, that question was not answered.

Future Directions and Recommendations

In the future, research might investigate the efficacy of government initiatives in disseminating intangible cultural assets in rural areas and identify any obstacles to the programs' actual execution. Future studies may investigate how technology and digital platforms may influence the dissemination of intangible cultural assets in rural areas. The social and economic elements that influence the preservation and transmission of intangible cultural assets in rural areas, as well as how these factors are affected by economic advancements, could be the subject of study that is conducted in the future. In subsequent investigations, the

impact of the pandemic on the dispersal of intangible cultural assets in urban areas and how this varies from the situation in rural areas might be investigated.

9. Conclusion

The development of intangible cultural heritage in modern China's rural agricultural landscape has been a mixed bag of hurdles and rewards in the context of the current economic climate. The COVID-19 outbreak has posed enormous challenges to preserving and promoting intangible cultural heritage, particularly in geographically isolated communities that have restricted access to resources and technology. Despite this, it has provided a chance for communities to rediscover and cherish the cultural heritage they have inherited to cope with the crises they are facing. As a direct response to the outbreak, numerous initiatives to foster the transmission of intangible cultural assets in rural agricultural settings have been initiated as part of the response. For instance, the government of China has launched a variety of initiatives to promote the maintenance and growth of intangible cultural assets. However, many rural communities have adopted unique alternatives to adapt their cultural practices to the new reality. These include funding online cultural activities and using digital platforms to spread their traditions. Despite the challenges, the epidemic has highlighted the importance of conserving intangible cultural assets in rural areas. This is important not just to preserve cultural diversity but also to ensure the continued viability of local enterprises. China needs to acknowledge the significance of its intangible cultural legacy and take measures to protect it for the benefit of future generations as it continues its modernization and economic development.

References

- Aktürk, G. (2022). A systematic overview of the barriers to building climate adaptation of cultural and natural heritage sites in polar regions. *Environmental Science & Policy, 136*, 19-32. doi: https://doi.org/10.1016/j.envsci.2022.05.016
- Anaduaka, E. G., Uchendu, N. O., Asomadu, R. O., Ezugwu, A. L., Okeke, E. S., & Ezeorba, T. P. C. (2023). Widespread use of toxic agrochemicals and pesticides for agricultural products storage in Africa and developing countries: Possible panacea for ecotoxicology and health implications. *Heliyon*, *9*, e15173. doi: https://doi.org/10.1016/j.heliyon.2023.e15173
- Arcos-Pumarola, J., Paquin, A. G., & Sitges, M. H. (2023). The use of intangible heritage and creative industries as a tourism asset in the UNESCO creative cities network. *Heliyon*, *9*(1), e13106. doi: https://doi.org/10.1016/j.heliyon.2023.e13106
- Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. *Biological conservation*, 241, 108224. doi: https://doi.org/10.1016/j.biocon.2019.108224
- Baloch, Q. B., Shah, S. N., Iqbal, N., Sheeraz, M., Asadullah, M., Mahar, S., et al. (2023). Impact of tourism development upon environmental sustainability: A suggested framework for sustainable ecotourism. *Environmental Science and Pollution Research*, *30*(3), 5917-5930. doi: https://doi.org/10.1007/s11356-022-22496-w

- Barrientos, F., Martin, J., De Luca, C., Tondelli, S., Gómez-García-Bermejo, J., & Casanova, E. Z. (2021). Computational methods and rural cultural & natural heritage: A review. *Journal of Cultural Heritage*, 49, 250-259. doi: https://doi.org/10.1016/j.culher.2021.03.009
- Birkeland, Å., & Li, M. (2019). Building a sustainable future through international ECE partnership programmes. *ECNU Review of Education*, 2(4), 458-474. doi: https://doi.org/10.1177/2096531119893480
- Boyd, D. (2020). The legacy café-the holistic benefit of reviving lost arts, crafts and traditional skills through an early childhood intergenerational sustainable skills project. *Education 3-13, 48*(2), 204-216. doi: https://doi.org/10.1080/03004279.2019.1603247
- Bryan, E., & Mekonnen, D. (2023). Does small-scale irrigation provide a pathway to women's empowerment? Lessons from Northern Ghana. *Journal of Rural Studies*, *97*, 474-484. doi: https://doi.org/10.1016/j.jrurstud.2022.12.035
- Buckland, S. F., & Campbell, D. (2021). An assessment of factors influencing awareness, access and use of agro-climate services among farmers in Clarendon, Jamaica. *Geoforum*, *126*, 171-191. doi: https://doi.org/10.1016/j.geoforum.2021.07.032
- Castro, D. A. T. (2021). Community organization for the protection of cultural heritage in the aftermath of disasters. *International Journal of Disaster Risk Reduction*, 60, 102321. doi: https://doi.org/10.1016/j.ijdrr.2021.102321
- Cetegen, S. A., & Stuber, M. D. (2021). Optimal design of controlled environment agricultural systems under market uncertainty. *Computers & Chemical Engineering*, 149, 107285. doi: https://doi.org/10.1016/j.compchemeng.2021.10
- Cheetham, A., Morgan, K., Jackson, J., Lord, S., & Nielsen, S. (2023). Informing a collaborative-care model for delivering medication assisted treatment for opioid dependence (MATOD): An analysis of pharmacist, prescriber and patient perceptions. *Research in Social and Administrative Pharmacy*, 19(3), 526-534. doi: https://doi.org/10.1016/j.sapharm.2022.09.009
- Chen, Z., Suntikul, W., & King, B. (2020). Constructing an intangible cultural heritage experiencescape: The case of the Feast of the Drunken Dragon (Macau). *Tourism Management Perspectives, 34*, 100659. doi: https://doi.org/10.1016/j.tmp.2020.100659
- Christodoulakis, N., Vidal Carulla, C., & Adbo, K. (2021). Perezhivanie and its application within Early Childhood Science Education research. *Education Sciences*, 11(12), 813. doi: https://doi.org/10.3390/educsci11120813
- DeSoucey, M., Elliott, M. A., & Schmutz, V. (2019). Rationalized authenticity and the transnational spread of intangible cultural heritage. *Poetics*, 75, 101332. doi: https://doi.org/10.1016/j.poetic.2018.11.001
- Díaz-Andreu, M., & Pastor Pérez, A. (2023). Archaeological Heritage Values and Significance. In *Reference Module in Social Sciences*. Elsevier. doi: https://doi.org/10.1016/B978-0-323-90799-6.00049-5

- Endris, G. S., Wordofa, M. G., Aweke, C. S., Hassen, J. Y., Hussein, J. W., Ebrahim, A. S., et al. (2022). Impact of the COVID-19 control measures on rural households' access to social capital for mobilizing resources in Eastern Ethiopia. *Scientific African*, 16, e01258. doi: https://doi.org/10.1016/j.sciaf.2022.e01258
- Enticott, G., O'Mahony, K., Shortall, O., & Sutherland, L.-A. (2022). 'Natural born carers'? Reconstituting gender identity in the labour of calf care. *Journal of Rural Studies*, 95, 362-372. doi: https://doi.org/10.1016/j.jrurstud.2022.09.034
- Gao, L., & Dietze-Schirdewahn, A. (2018). Garden culture as heritage: A pilot study of garden culture conservation based on Norwegian examples. *Urban Forestry & Urban Greening*, 30, 239-246. doi: https://doi.org/10.1016/j.ufug.2017.03.010
- Giacomarra, M., Crescimanno, M., Vrontis, D., Pastor, L. M., & Galati, A. (2021). The ability of fish ecolabels to promote a change in the sustainability awareness. *Marine Policy*, 123, 104292. doi: https://doi.org/10.1016/j.marpol.2020.104292
- Haifeng, C., & Xinzheng, M. (2022). Exploration of the Role of Innovation and Entrepreneurship Project in the Construction of Campus Aesthetic Education. *Journal of Educational Issues*, 8(1), 523-534. doi: https://doi.org/10.5296/jei.v8i1.19796
- Halder, S., & Sarda, R. (2021). Promoting intangible cultural heritage (ICH) tourism: Strategy for socioeconomic development of snake charmers (India) through geoeducation, geotourism and geoconservation. *International Journal of Geoheritage and Parks*, 9(2), 212-232. doi: https://doi.org/10.1016/j.ijgeop.2021.02.008
- Hernández-Rojas, R. D., Huete-Alcocer, N., & Hidalgo-Fernández, A. (2022). Analysis of the impact of traditional gastronomy on loyalty to a world heritage destination. *International Journal of Gastronomy and Food Science*, 30, 100585. doi: https://doi.org/10.1016/j.ijgfs.2022.100585
- Jamshidi, S., Imani, S., & Delavar, M. (2022). An approach to quantifying the grey water footprint of agricultural productions in basins with impaired environment. *Journal of Hydrology*, 606, 127458. doi: https://doi.org/10.1016/j.jhydrol.2022.127458
- Jato-Espino, D., & Mayor-Vitoria, F. (2023). A statistical and machine learning methodology to model rural depopulation risk and explore its attenuation through agricultural land use management. *Applied Geography*, 152, 102870. doi: https://doi.org/10.1016/j.apgeog.2023.102870
- Kapsalis, T. A. (2022). A three-leg cultural relay race to sustainability of rural communities. *Current Research in Environmental Sustainability*, *4*, 100136. doi: https://doi.org/10.1016/j.crsust.2022.100136
- Lees, L., Karro, K., Barboza, F. R., Ideon, A., Kotta, J., Lepland, T., et al. (2023). Integrating maritime cultural heritage into maritime spatial planning in Estonia. *Marine Policy*, *147*, 105337. doi: https://doi.org/10.1016/j.marpol.2022.105337
- Li, Z. (2021). Treatment and technology of domestic sewage for improvement of rural environment in China-Jiangsu: A research. *Science Progress and Research (SPR)*, *1*(4), 305-314. doi: https://doi.org/10.52152/spr%2F2021.154

- López-Fernández, J. A., Medina, S., López, M. J., & García-Morís, R. (2021). Perceptions of heritage among students of early childhood and primary education. *Sustainability*, *13*(19), 10636. doi: https://doi.org/10.3390/su131910636
- Luchoro-Parrilla, R., Lavega-Burgués, P., Damian-Silva, S., Prat, Q., Sáez de Ocáriz, U., Ormo-Ribes, E., et al. (2021). Traditional games as cultural heritage: the case of canary Islands (Spain) from an ethnomotor perspective. *Frontiers in psychology, 12*, 586238. doi: https://doi.org/10.3389/fpsyg.2021.586238
- Luh, Y.-H., Chang, Y.-C., & Hsieh, M.-F. (2023). What determines how green crop farming can get? Spatial factors or green awareness spillovers. *Journal of Environmental Management*, 326, 116667. doi: https://doi.org/10.1016/j.jenvman.2022.116667
- Mah, O. B. P., Yan, Y., Tan, J. S. Y., Tan, Y.-X., Tay, G. Q. Y., Chiam, D. J., et al. (2019). Generating a virtual tour for the preservation of the (in) tangible cultural heritage of Tampines Chinese Temple in Singapore. *Journal of Cultural Heritage*, 39, 202-211. doi: https://doi.org/10.1016/j.culher.2019.04.004
- Martin, N., Sheppard, M., Gorasia, G., Arora, P., Cooper, M., & Mulligan, S. (2021). Awareness and barriers to sustainability in dentistry: A scoping review. *Journal of Dentistry*, *112*, 103735. doi: https://doi.org/10.1016/j.jdent.2021.103735
- Masoud, H., Mortazavi, M., & Farsani, N. T. (2019). A study on tourists' tendency towards intangible cultural heritage as an attraction (case study: Isfahan, Iran). *City, Culture and Society, 17*, 54-60. doi: https://doi.org/10.1016/j.ccs.2018.11.001
- Menandro, F. C. M., & Arnab, S. (2020). Game-Based Mechanical Engineering Teaching and Learning A Review. *Smart and Sustainable Manufacturing Systems*, 5(2). doi: https://doi.org/10.1520/SSMS20200003
- Mihardja, E. J., Alisjahbana, S., Agustini, P. M., Sari, D. A. P., & Pardede, T. (2023). Forest wellness tourism destination branding for supporting disaster mitigation: A case of Batur UNESCO Global Geopark, Bali. *International Journal of Geoheritage and Parks*, 11(1), 169-181. doi: https://doi.org/10.1016/j.ijgeop.2023.01.003
- Mketo, A. R., Ringo, C. J., Nuhu, S., & Mpambije, C. J. (2022). Enhancing community participation for environmental health improvement in rural Tanzania: Evidence from Bukombe district. *Evaluation and Program Planning*, 94, 102152. doi: https://doi.org/10.1016/j.evalprogplan.2022.102152
- Nguyen, N., & Drakou, E. G. (2021). Farmers intention to adopt sustainable agriculture hinges on climate awareness: The case of Vietnamese coffee. *Journal of cleaner production*, 303, 126828. doi: https://doi.org/10.1016/j.jclepro.2021.126828
- Opoku, E. E. O., Dogah, K. E., & Aluko, O. A. (2022). The contribution of human development towards environmental sustainability. *Energy Economics*, 106, 105782. doi: https://doi.org/10.1016/j.eneco.2021.105782

- Ouassanouan, Y., Fakir, Y., Simonneaux, V., Kharrou, M. H., Bouimouass, H., Najar, I., et al. (2022). Multi-decadal analysis of water resources and agricultural change in a Mediterranean semiarid irrigated piedmont under water scarcity and human interaction. *Science of The Total Environment*, 834, 155328. doi: https://doi.org/10.1016/j.scitotenv.2022.155328
- Panzer-Krause, S. (2020). The lost rural idyll? Tourists' attitudes towards sustainability and their influence on the production of rural space at a rural tourism hotspot in Northern Ireland. *Journal of Rural Studies*, 80, 235-243. doi: https://doi.org/10.1016/j.jrurstud.2020.09.013
- Parlee, C. E., Foley, P., Gomez, M. A. L., Miah, M. R., Mather, C., & Stephenson, R. L. (2021). Full spectrum sustainability and a theory of access: Integrating social benefits into fisheries governance. *Marine Policy*, 134, 104764. doi: https://doi.org/10.1016/j.marpol.2021.104764
- Patra, D., Patra, B. R., Pattnaik, F., Hans, N., & Kushwaha, A. (2022). Recent evolution in green technologies for effective valorization of food and agricultural wastes. In *Emerging Trends to Approaching Zero Waste* (pp. 103-132). Elsevier. doi: https://doi.org/10.1016/B978-0-323-85403-0.00001-3
- Quintero-Angel, M., Mendoza-Salazar, D. M., & Martinez-Giron, J. (2022). Food fears and risk of loss of food heritage: A little-explored effect of food modernity and times of pandemic. *International Journal of Gastronomy and Food Science*, 28, 100499. doi: https://doi.org/10.1016/j.ijgfs.2022.100499
- Rahmani, R., & Tienken, S. (2022). Distributed Meta-Learning for Context Based on Culture Heritage Collection Data in an Immersive Reality System. *Procedia Computer Science*, 210, 70-77. doi: https://doi.org/10.1016/j.procs.2022.10.121
- Rahn, N. L., Linzmeier, K., & Winchell, B. (2023). "The world is my oyster": impacts of an international student teaching experience on future early childhood special educators. *Journal of Early Childhood Teacher Education*, 1-21. doi: https://doi.org/10.1080/10901027.2023.2165982
- Rojas, E., & Benakli, N. (2020). Mathematical Literacy and Critical Thinking. In *Teaching College-Level Disciplinary Literacy: Strategies and Practices in STEM and Professional Studies* (pp. 197-226). Palgrave Macmillan, Cham. doi: https://doi.org/10.1007/978-3-030-39804-0_8
- Rotolo, G. C., Vassillo, C., Rodriguez, A., Magnano, L., Vaccaro, M. M., Civit, B. M., et al. (2022). Perception and awareness of circular economy options within sectors related to agriculture in Argentina. *Journal of cleaner production*, *373*, 133805. doi: https://doi.org/10.1016/j.jclepro.2022.133805
- Sanchez, S. A., Nunberg, S., Cnossen, K., & Eckelman, M. J. (2023). Life cycle assessment of anoxic treatments for cultural heritage preservation. *Resources, Conservation and Recycling, 190*, 106825. doi: https://doi.org/10.1016/j.resconrec.2022.106825
- Seijger, C., & Hellegers, P. (2023). How do societies reform their agricultural water management towards new priorities for water, agriculture, and the environment? Agricultural Water Management, 277, 108104. doi: https://doi.org/10.1016/j.agwat.2022.108104

- Serra-Majem, L., & Medina, F. X. (2020). Mediterranean diet: A long journey toward intangible cultural heritage and sustainability. In *The Mediterranean Diet* (pp. 13-24). Elsevier. doi: https://doi.org/10.1016/B978-0-12-818649-7.00002-3
- Sgroi, F. (2022). Evaluating of the sustainability of complex rural ecosystems during the transition from agricultural villages to tourist destinations and modern agri-food systems. *Journal of Agriculture and Food Research*, *9*, 100330. doi: https://doi.org/10.1016/j.jafr.2022.100330
- Shabir, I., Dash, K. K., Dar, A. H., Pandey, V. K., Fayaz, U., Srivastava, S., et al. (2023). Carbon footprints evaluation for sustainable food processing system development: A comprehensive review. *Future Foods*, 7, 100215. doi: https://doi.org/10.1016/j.fufo.2023.100215
- Shaker, R. R., & Mackay, B. R. (2021). Hidden patterns of sustainable development in Asia with underlying global change correlations. *Ecological Indicators*, *131*, 108227. doi: https://doi.org/10.1016/j.ecolind.2021.108227
- Shen, Z., Wang, S., Boussemart, J.-P., & Hao, Y. (2022). Digital transition and green growth in Chinese agriculture. *Technological Forecasting and Social Change, 181*, 121742. doi: https://doi.org/10.1016/j.techfore.2022.121742
- Spadijer, S. (2022). La domesticité, phénomène socioculturel, représentée dans les œuvres Zoune chez sa ninnaine de Justin Lhérisson et Rêves amers de Maryse Condé. *French Cultural Studies*, *33*(1), 3-18. doi: https://doi.org/10.1177/09571558211044965
- Stapleton, L., O'Neill, B., Cronin, K., McInemey, P., Hendrick, M., & Dalton, E. (2019). A semi-automated systems architecture for cultural heritage: sustainable solutions for Digitising cultural heritage. *IFAC-PapersOnLine*, 52(25), 562-567. doi: https://doi.org/10.1016/j.ifacol.2019.12.606
- Tang, D., Zheng, Q., Xu, B., Zheng, M., & Chen, J. (2023). Value of nostalgia to agricultural heritage: Consumer's nostalgia proneness and purchase intention toward traditional tea. *Journal of cleaner production*, 395, 136411. doi: https://doi.org/10.1016/j.jclepro.2023.136411
- Teza, G., Trevisani, S., & Pesci, A. (2019). The role of geoenvironmental sciences in Cultural Heritage preservation: the case of 1000 year old leaning bell tower of Caorle (Venice). *Journal of Cultural Heritage*, *39*, 270-277. doi: https://doi.org/10.1016/j.culher.2019.03.013
- Trichopoulou, A. (2021). Mediterranean diet as intangible heritage of humanity: 10 years on. *Nutrition, Metabolism and Cardiovascular Diseases, 31*(7), 1943-1948. doi: https://doi.org/10.1016/j.numecd.2021.04.011
- Tzima, S., Styliaras, G., Bassounas, A., & Tzima, M. (2020). Harnessing the potential of storytelling and mobile technology in intangible cultural heritage: A case study in early childhood education in sustainability. *Sustainability*, *12*(22), 9416. doi: https://doi.org/10.3390/su12229416
- Vázquez-Delfin, P., Časas, A., & Vallejo, M. (2022). Adaptation and biocultural conservation of traditional agroforestry systems in the Tehuacán Valley: access to resources and livelihoods strategies. *Heliyon*, 8(7), e09805. doi: https://doi.org/10.1016/j.heliyon.2022.e09805

- Vu, H. T., & Goto, D. (2020). Does awareness about land tenure security (LTS) increase investments in agriculture? Evidence from rural households in Vietnam. *Land Use Policy*, 97, 104721. doi: https://doi.org/10.1016/j.landusepol.2020.104721
- Wilkinson, J. E. (2020). Social justice in educational policy and practice with particular reference to early childhood. In *Handbook on Promoting Social Justice in Education* (pp. 919-941). Springer, Cham. doi: https://doi.org/10.1007/978-3-030-14625-2-7
- Xiao, J., Wu, Y., Wang, M., & Zhao, Y. (2023). Using choice experiments to assess tourist values for intangible cultural heritage—the case of Changdao fishermen's work song in China. *Journal of Cultural Heritage*, 60, 50-62. doi: https://doi.org/10.1016/j.culher.2023.01.008
- Yong, E. L. (2021). Understanding the economic impacts of sea-level rise on tourism prosperity: Conceptualization and panel data evidence. *Advances in Climate Change Research*, 12(2), 240-253. doi: https://doi.org/10.1016/j.accre.2021.03.009
- Yue, Q., & Guo, P. (2021). Managing agricultural waterenergy-food-environment nexus considering water footprint and carbon footprint under uncertainty. *Agricultural Water Management*, 252, 106899. doi: https://doi.org/10.1016/j.agwat.2021.106899
- Zheng, S. (2023). Safeguarding food heritage through social media? Between heritagization and commercialization. *International Journal of Gastronomy and Food Science*, *31*, 100678. doi: https://doi.org/10.1016/j.ijgfs.2023.100678
- Zikargae, M. H., Woldearegay, A. G., & Skjerdal, T. (2022). Empowering rural society through non-formal environmental education: An empirical study of environment and forest development community projects in Ethiopia. *Heliyon*, 8(3), e09127. doi: https://doi.org/10.1016/j.heliyon.2022.e09127