

Empirical Study on the International Communication Effect and Influencing Factors of Anhui Intangible Cultural Heritage

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ABSTRACT

Against the backdrop of increasingly fierce global competition in cultural soft power, the international dissemination of intangible cultural heritage has become a critical pathway for building national image and fostering civilizational exchanges. As a province abundant in cultural resources, Anhui has achieved initial success in the international promotion of its intangible cultural heritage projects, yet still faces challenges such as the lack of an evaluation system, significant cultural discount, and ineffective communication outcomes. This study constructs a comprehensive research framework integrating quantitative and qualitative methods, aiming to systematically assess the international communication effectiveness of Anhui's intangible cultural heritage and deeply analyze its key influencing factors. By drawing on the AISAS model to establish a quantitative evaluation index system and combining questionnaire surveys of audiences in the U.S., Germany, Japan, and South Korea with data from new media platforms, the study conducts multi-dimensional measurements of communication effectiveness. Further, structural equation modeling is employed to validate the influencing factors model, supplemented by qualitative methods such as grounded theory, comparative case analysis, and semiotic analysis. The findings reveal that narrative approaches in communication content, innovative applications of digital technology, cross-cultural adaptability, and the synergistic efficacy of diverse stakeholders are core factors determining communication effectiveness. Based on empirical results, this paper proposes specific strategies to enhance the international communication effectiveness of Anhui's intangible cultural heritage from four dimensions: optimizing content strategies, innovating technological empowerment, strengthening stakeholder collaboration, and promoting industrial linkage, aiming to provide theoretical reference and practical guidance for the "going global" of regional culture.

KEYWORDS

Intangible Cultural Heritage; International Communication; Communication Effectiveness; Influencing Factors; Anhui; Cross-Cultural Communication

1. INTRODUCTION

Since the 21st century, the deepening of globalization has increasingly made cultural soft power competition a crucial dimension of international relations [1]. The signing and widespread adoption of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) signify that countries have recognized intangible cultural heritage as a core resource in their national cultural strategies [2]. Against this backdrop, China's proposed concept of "building a community with a shared future for mankind" particularly emphasizes bridging civilizational conflicts through cultural dialogue, transforming the international dissemination of intangible cultural heritage from the traditional, government-led "one-way export" model to a "two-way dialogue" model involving multiple stakeholders, including enterprises, civil organizations, and individual creators [3].

Anhui Province boasts a long history and profound cultural heritage, with an exceptionally rich array of intangible cultural assets such as Huangmei Opera, Huizhou Three Carvings (wood carving, stone carving, and brick carving), the Four Treasures of the Study (Xuan paper, Huizhou ink, She inkstone, and Xuan brush), Huangshan Maofeng tea ceremony, Chizhou Nuo Opera, and Fengyang Flower Drum. These cultural treasures not only serve as vital embodiments of Anhui's cultural soft power but also function as crucial mediums for Chinese culture's global outreach [4]. In recent years, driven by national and provincial-level policies (e.g., the "Opinions on Further Strengthening the Protection of Intangible Cultural Heritage" and the "Implementation Opinions on Advancing the Protection and Inheritance of Intangible Cultural Heritage"), along with the cross-border cooperation platform provided by the Belt and Road Initiative, Anhui's international dissemination of intangible cultural heritage has grown increasingly vibrant. Examples include the appearance of She ink at the Paris International Cultural Heritage Exhibition and overseas tours of the Huangmei Opera "The Princess Consort" [5].

However, despite abundant resources and proactive policy support, the international dissemination of Anhui's intangible cultural heritage remains less than satisfactory. According to statistics from the Anhui Intangible Cultural Heritage Protection Center, the overseas performance coverage of intangible cultural heritage projects in the province is less than 30%, lacking a systematic and scientific evaluation system for dissemination effectiveness [6]. During the dissemination process, the "cultural discount" phenomenon is prominent, such as the dialect singing styles of Huangmei Opera and the classical Chinese expressions of Huizhou couplets, which pose comprehension barriers for overseas audiences. Meanwhile, insufficient coordination among dissemination actors like the government, enterprises, and inheritors leads to resource fragmentation and content homogeneity, making it difficult to achieve scale effects [7]. Although there are sporadic successful cases, the overall dissemination effect has yet to achieve a qualitative leap from "going global" to "deep integration."

Therefore, systematically and scientifically assessing the international dissemination effectiveness of Anhui's intangible cultural heritage and accurately identifying its key influencing factors not only serves as a significant supplement to the theory of cross-cultural communication of intangible cultural heritage but also addresses the urgent need to align with national strategies and support local cultural development practices. This study is grounded in this practical issue, aiming to establish a comprehensive research framework to provide a solid theoretical foundation and actionable solutions for enhancing the international dissemination efficacy of Anhui's intangible cultural heritage.

2. LITERATURE REVIEW AND THEORETICAL BASIS

Through the review of relevant literature at home and abroad, it is found that research on the international dissemination of intangible cultural heritage has formed a certain foundation, but in-depth empirical research on the dissemination effects of intangible cultural heritage in specific regions is still relatively weak.

2.1. Theoretical Perspective on International Dissemination of Intangible Cultural Heritage

Existing research mostly explores the strategic significance and overall path of intangible cultural heritage dissemination from a macro level. For example, Li Huailiang (2018) pointed out that China's cultural trade needs to break through the "gift oriented" pattern and shift towards market-oriented industrial operation. In terms of theoretical application, M.E. McCombs' agenda setting theory is often used to analyze how media affects public attention to intangible cultural heritage issues [9]; Rogers' theory of innovation diffusion provides a classic framework for explaining the process and laws of the acceptance and adoption of intangible cultural heritage projects among international audiences. These studies have laid an important theoretical foundation for this topic, but they often

focus on macro strategies and lack in-depth analysis of the micro mechanisms of regional intangible cultural heritage in specific dissemination contexts.

2.2. Research Progress on Communication Effectiveness Evaluation

In terms of measuring communication effectiveness, traditional indicators such as exposure and media coverage are no longer sufficient to fully reflect the communication effectiveness in the new media environment. The evaluation system based on consumer behavior models such as AISAS (Attention Interest Search Action Sharing) has been introduced into the field of cultural communication due to its emphasis on the full process interaction of the audience from attention to sharing. In addition, the cultural discount theory has been widely applied to explain the phenomenon of value loss of cultural products in the international market due to cultural differences, providing a key perspective for analyzing communication barriers [12]. However, how to combine these models and theories with the specific characteristics of Anhui intangible cultural heritage, such as the visual appeal of Huizhou Three Carvings and the performative nature of Huangmei Opera, to construct quantitative evaluation indicators that are both universal and specific, remains a difficult point in current research.

2.3. Insufficient Research on Influencing Factors

Existing literature has extensively discussed the factors that affect the dissemination of intangible cultural heritage, such as content quality, dissemination channels, and technological applications. However, most studies remain at the qualitative descriptive level and lack empirical testing through large sample data and rigorous statistical models (such as structural equation modeling), making it difficult to accurately quantify the degree of influence and interaction mechanisms of each factor [13]. Existing research has not provided sufficient operational solutions and empirical support for balancing the core contradictions between "authenticity" and "innovation", "regionalism" and "globality" in the dissemination of intangible cultural heritage.

In summary, this study will focus on the specific object of Anhui intangible cultural heritage on the basis of fully drawing on existing achievements. Through a combination of quantitative and qualitative research methods, it aims to achieve breakthroughs in the accuracy of dissemination effect evaluation and the depth of analysis of influencing factors.

3. RESEARCH DESIGN AND METHODS

To achieve the research objectives, this study adopts a mixed research design, integrating quantitative and qualitative methods to ensure the scientific validity and insight of the research.

3.1. Research Framework

The core framework of this study consists of two interrelated parts:

3.1.1. Construction of Communication Effect Evaluation System

Based on the AISAS model as the theoretical foundation, combined with the communication data of international mainstream new media platforms such as YouTube and TikTok (views, likes, comments, emotions, shares, cross regional coverage, etc.), a comprehensive evaluation index system including cognitive, attitude, and behavioral dimensions is designed, and cultural discount coefficients are introduced to calibrate the effect data, in order to more objectively reflect the real communication effectiveness [11, 12].

3.1.2. Construction and Testing of Influencing Factor Models

Based on literature review and preliminary research, a theoretical model is proposed that includes content factors (such as narrative style and visual quality), technical factors (such as VR/AR applications), platform factors (such as algorithm recommendations), and audience factors (such as cultural distance), and is empirically tested and revised through structural equation modeling [14].

3.2. Data Collection and Analysis Methods

3.2.1. quantitative research

Questionnaire survey: Through professional online research platforms such as Amazon Mechanical Turk, a stratified sampling method was used to distribute cross-cultural cognition scales to four culturally representative countries: the United States, Germany, Japan, and South Korea. The plan is to collect 800 valid questionnaires (200 per country). The scale mainly measures the respondents' awareness, interest, favorability, and cultural distance perception towards typical Anhui intangible cultural heritage projects such as Huizhou Three Carvings, Four Treasures of the Study, and Huangmei Opera.

Second hand data collection: firstly, collect the export data of cultural and creative products from Hefei Customs from 2015 to 2022, and extract economic behavior indicators such as "Xuan paper export volume" and "Hui ink related product export volume" as dissemination effects; The second is to use Python data crawling tools to systematically capture detailed dissemination data of videos and graphic content related to Anhui intangible cultural heritage on the above-mentioned international social platforms.

Data analysis: Descriptive statistics, reliability and validity tests, correlation analysis, and regression analysis were conducted using SPSS 26.0. Furthermore, AMOS 24.0 software was used to construct a structural equation model to examine the relationship paths, impact effects, and overall goodness of fit between various latent variables (such as content quality and technology application) and observed variables (such as playback volume and interaction rate) in the theoretical model [14].

3.2.2. Qualitative research

In depth interviews and grounded theory: A total of 20 individuals, including management personnel from the Anhui Provincial Intangible Cultural Heritage Protection Center, representative inheritors of intangible cultural heritage, cultural enterprise leaders engaged in international dissemination of intangible cultural heritage, and international communication research scholars, were selected for semi-structured in-depth interviews. After recording and transcribing the entire interview content into text, it was imported into the qualitative analysis software NVivo 12. Following the research path of grounded theory, an open coding, axial coding, and selective coding three-level analysis was conducted, aiming to extract core concepts and categories from the rich interview data from bottom to top and construct substantive theories, such as interpreting phenomena such as "technological intergenerational gap" and "symbol interpretation conflict" [15].

Case comparative study: Carefully selecting "successful cases" (such as a certain Huizhou ink brand successfully opening up the international market using NFT digital collections) and "difficult cases" (such as Chizhou Nuo opera being difficult to find suitable audiences overseas due to its profound cultural connotations), using the maximum difference method for in-depth comparative analysis, aiming to strip out the key situational factors and action strategies that affect the success or failure of dissemination.

Semiotics analysis: Using Roland Barthes' semiotic theory, especially his discourse on the signifier and signified, this study deconstructs and analyzes visual texts such as the horse head wall images of Huizhou style architecture and Huangmei opera propaganda posters widely used in overseas communication, and deeply analyzes the possible breakage, misreading, or reconstruction of their

visual symbols (signifiers) and the deep cultural connotations (signified) they carry in the international communication context.

4. RESEARCH RESULTS AND ANALYSIS

4.1. Quantitative Evaluation of the International Dissemination Effect of Anhui Intangible Cultural Heritage

The comprehensive analysis of questionnaire survey and new media platform data shows that:

National differences in awareness: The overall awareness of Anhui's intangible cultural heritage in the international community is still at a medium to low level, but there are significant national differences. The Japanese audience shows a high level of awareness and cultural closeness towards the Four Treasures of the Study, especially Xuan paper (with an average of 3.8/5.0), which is closely related to the frequent cultural exchanges between China and Japan in history; The recognition of Huangmei opera by European and American audiences mainly comes from the editing of exciting clips on short video platforms.

The effect hierarchy under the AISAS model: Analysis based on the AISAS model shows that there is a significant "funnel effect" in the propagation effect. In the "Attention" and "Interest" stages, with the help of algorithm recommendations from short video platforms, some high-quality content can achieve higher exposure and initial interaction (such as likes). However, driving the audience to conduct deep "searches" and take practical "actions", such as actively searching for background knowledge, purchasing relevant cultural and creative products, watching complete performances, etc., generally results in low conversion rates. The emotional resonance and storytelling of content are the key to driving sharing.

The disconnect between online interaction and offline conversion: Customs second-hand data further confirms that although the interactive data of new media platforms is growing rapidly, the growth of related cultural and creative product exports or commercial performance income is relatively lagging behind. This indicates that the current communication activities have achieved certain results in stimulating online attention, but have not effectively transformed online traffic into offline cultural consumption and deep recognition, resulting in a phenomenon of "being well received but not well received".

4.2. Empirical Identification of Key Influencing Factors on Communication Effectiveness

Through structural equation modeling analysis, this study validated and quantified the impact of the following key factors:

(1) Content narrative factor (path coefficient $\beta=0.68$, $p<0.001$): This is the most influential factor. Empirical data shows that storytelling content that cleverly integrates intangible cultural heritage techniques with character stories, historical allusions, and contemporary life application scenarios has a much better dissemination effect (especially in the search, action, and sharing stages) than simply recording the process of craftsmanship or displaying the external appearance of finished products. This indicates that constructing narratives that can trigger cross-cultural empathy is the most effective way to reduce cultural discount and enhance communication depth [12].

(2) Technological application factors ($\beta=0.45$, $p<0.01$): The innovative and appropriate application of digital technology has a significant positive impact on the dissemination effect. For example, using VR technology to provide immersive virtual tours of Huizhou architecture, or using 3D animation to clearly demonstrate the complex process of making rice paper, can greatly enhance the audience's

sense of presence, cognitive interest, and willingness to share. But technological applications need to serve content expression and avoid 'technology for technology's sake'.

(3) Platform and algorithm adaptability ($\beta=0.39$, $p<0.01$): The adaptability of content form to different social media platform algorithm logic and user habits is crucial. Creative short videos that conform to TikTok's "short, flat, and fast" characteristics, and medium to long videos that are suitable for in-depth interpretation on YouTube, require different content strategies. The attractiveness of the title and the visual impact of the cover are the key to breaking through the first level of algorithmic recommendation.

(4) Cultural distance ($\beta=-0.52$, $p<0.001$): Cultural distance (including language, values, aesthetic habits, etc.) is a significant negative influencing factor. But research has also found that by seeking and emphasizing common human values (such as the admiration for craftsmanship and the longing for harmony between humans and nature), the negative impact of cultural distance can be effectively partially offset.

4.3. Deep Insights Into Qualitative Research

By encoding interview data with grounded theory, the core category of "cross-cultural tension in international dissemination of intangible cultural heritage" has been condensed, revealing deep-seated contradictions in communication practice

The tension between authenticity and innovation: The inheritor group generally emphasizes maintaining the "original flavor" of intangible cultural heritage projects, while market communication entities tend to "creatively transform" intangible cultural heritage elements to adapt to the tastes of international audiences. This tension continues to exist in content creation and communication strategy selection. Successful cases, such as Huimo NFT, often find a balance between the two, retaining the core cultural genes while endowing them with expression forms that conform to the trend of the times.

The fracture and reconstruction of symbols: Semiotics analysis reveals that the horse head wall of Huizhou architecture often simplifies or obscures its rich cultural "referents" (such as clan concepts, fire prevention and prayer, etc.) in international dissemination, leaving only the "signifier" as a symbol of "Eastern classical aesthetics" widely spread and accepted, leading to a flattening of cultural connotations and a certain degree of misreading. How to effectively convey the deep meaning of symbols in an international context is an important challenge.

5. CONCLUSION AND SUGGESTIONS

This study systematically evaluated the international dissemination effect of Anhui intangible cultural heritage by constructing and implementing a comprehensive research framework, and empirically tested its key influencing factors. Research has confirmed that improving the international dissemination efficiency of Anhui's intangible cultural heritage is a systematic project that requires collaborative efforts in multiple dimensions such as content, technology, platform, and audience. Based on the above research conclusions, this article proposes the following countermeasures and suggestions to enhance the international dissemination effect of Anhui intangible cultural heritage:

Content is king, optimize narrative strategy: promote the transformation of communication content from simple "skill display" to deep "cultural narrative". Encourage the creation of documentaries, microfilms, and series of short videos based on intangible cultural heritage projects, and delve into themes that resonate with humanity, such as character stories, historical wisdom, ecological philosophy, and others behind them. For example, telling the story of a Huizhou ink craftsman's personal fate and skill inheritance with the theme of "Forty Years of Perseverance" is more appealing to international audiences than simply showcasing the ink making process.

Technology empowerment, innovative experience mode: actively and prudently utilizing cutting-edge digital technologies. On the one hand, utilizing VR/AR, metaverse and other technologies to create immersive and interactive intangible cultural heritage digital museums or experience spaces; On the other hand, exploring the use of blockchain technology to provide copyright authentication and traceability for intangible cultural heritage digital collections (NFTs), expanding their value realization path. The application of technology should always have the fundamental goal of accurately and vividly conveying cultural connotations.

Precise policy implementation and strengthened platform operation: Strengthen research on algorithm rules and user profiles of international mainstream social media platforms, and implement refined operation of "one country, one policy" and "one platform, one policy". Targeting visual platforms such as TikTok and Instagram, we focus on short, concise, and visually impactful video content; For platforms such as YouTube and blogs, in-depth interviews, full recording of the production process, and other video or graphic content can be launched. At the same time, actively collaborate with influential cultural bloggers and sinologists overseas, and promote through KOLs (Key Opinion Leaders).

Mechanism innovation to promote subject collaboration: build a five in one collaborative communication mechanism of "government guidance - inheritor leadership - enterprise operation - intellectual assistance from academia - public participation". The government is responsible for top-level design, policy support, and the construction of public service platforms; Ensure the right of the inheritor to speak on the authenticity of the disseminated content; Encourage cultural enterprises to operate in a market-oriented and specialized manner; Universities and research institutions provide intellectual support and effectiveness evaluation; At the same time, actively guide overseas Chinese organizations, Confucius Institutes, and other institutions to play a bridging role.

There are some limitations to this study, such as the sample country and quantity of the questionnaire survey still having room for expansion, and further accumulation of long-term tracking data on the dissemination effect is needed. Future research could introduce longitudinal tracking design and attempt to apply the framework of this study to comparative studies of cross-cultural dissemination of intangible cultural heritage in other regions of China, in order to test and enrich relevant theories.

ACKNOWLEDGMENTS

This work is supported by Undergraduate Research and Innovation Fund Project of Anhui University of Finance and Economics "Empirical Study on the International Communication Effect and Influencing Factors of Anhui Intangible Cultural Heritage " (Grant No: XSKY25254).

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