

Cross-cultural Communication Mechanism of Cultural and Creative Products in Sports Events: A Dual-Case Study of “Rongbao,” “Shubao”, and “Jinzai” Based on Frame Alignment Theory

Xiang Yu^{1,2}, Canbo Wang^{3*}, Xiani Xiao³, Jianxun Li²

¹ Party Committee Office & Principai’s Office, Chengdu University of Technology, Chengdu, China

² Postdoctoral Research Station for Management Science and Engineering, Xi'an University of Technology, Xi'an, China

³ Sports Institute, Chengdu University of Technology, Chengdu, China

Email Address

yuxiang@cdut.edu.cn (Xiang Yu), 2425889498@qq.com (Canbo Wang)

*Correspondence: 2425889498@qq.com

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Abstract:

As a key medium for cultural value dissemination and event brand building, sports event cultural and creative products urgently require in-depth exploration of their effective communication mechanisms. Based on the framework connection perspective, this study employs a dual-case comparative research method, selecting the “Rongbao” theme of the 2023 Chengdu World University Summer Games cultural and creative products and the “Shubao” and “Jinzai” themes of the 2025 Chengdu World Games cultural and creative products as research subjects, systematically analyzing their communication strategies and effect differences. The research finds that the communication efficacy of sports event cultural and creative products relies on the synergistic interaction of three dimensions: “elaboration strategy”, “extension strategy”, and “bridging strategy”, enhancing dissemination effects through three resonance mechanisms: credibility, consistency, and commensurability. “Rongbao” achieved phenomenal local market dissemination by leveraging the high recognition and emotional design of the panda IP, while “Shubao” and “Jinzai” established value recognition through the symbolic uniqueness of the “dual treasures” combination and AI technology empowerment, achieving international dissemination and cultural translation. This study proposes a “three-dimensional dynamic communication model for sports event cultural and creative products,” expanding the analytical framework for sports cultural symbols and providing optimization strategies for the globalization of future sports event cultural and creative products.

Keywords:

Sports Event Cultural and Creative Products, Frame Alignment Theory, “Rongbao”, “Shubao”, “Jinzai”

1. Introduction

In the context of globalization and digitalization, sports event cultural and creative products have transcended their traditional attributes as souvenirs or commodities, evolving into a “hyper-symbolic” medium that integrates cultural value transmission, emotional cohesion, and commercial development [1]. However, the cultural and creative products from two consecutive international events hosted by the same city—Chengdu Universiade 2023 and Chengdu World Games 2025—demonstrate significant differences in their communication effects.

Official statistics from Chengdu Municipal Sports Bureau reveal that the Chengdu Universiade developed over 1,400 licensed cultural and creative products under the “Rongbao” theme (see Figure 1), achieving a retail sales total of 590 million yuan – the highest in Universiade history. The market development scale reached 2.676 billion yuan, driving 12.6 billion yuan in related tourism consumption [2]. Meanwhile, “Shubao” and “Jinzi” (see Figure 2) organized nearly 200 “World Games Gifts in Chengdu” promotional events, with their AI-powered robot Ropet® gaining 6 billion global exposures at CES [3]. They launched 360+ licensed products across 16 categories including toys, badges, stationery, and daily necessities, while developing unique items like 3D commemorative blind boxes and historical emblem sets. The innovative World Games-themed lottery generated 252 million yuan in total sales [4]. Although both campaigns achieved strong promotional effects, differences emerged in market conversion rates and emotional resonance. This “dual-city phenomenon” highlights gaps in theoretical explanations regarding the dissemination of sports event cultural products.



Figure 1. The Cultural and Creative Theme of the Chengdu World University Summer Games “Rongbao”.

Source: Official website of the Chengdu Universiade



Figure 2. The Cultural and Creative Theme of the Chengdu World Games “Shubao” and “Jinzi”.

Source: Official WeChat Account of the Chengdu World Games

Current research predominantly focuses on the static design aesthetics of cultural and creative products [5], singular commercial value assessments, or abstract emotional connection mechanisms, while lacking systematic analysis of their role as dynamic communication media [6]. Particularly, it overlooks the reproduction process of symbolic meaning in cross-cultural communication. As Snow et al. noted, symbolic meaning is not predetermined but continuously translated and reconstructed through social construction processes [7]. This perspective provides a theoretical foundation for addressing the communication challenges of cultural and creative products.

Building on this foundation, this study introduces the “Frame-Linking Theory” [8], framing cultural and creative products as symbolic practices of “cultural movements.” The core principle lies in strategically aligning product symbolic meanings with audience cognitive frameworks through thoughtful design. The research addresses two key questions: How can sports event cultural and creative products achieve effective cross-cultural communication through specific strategies? What are the underlying dynamic mechanisms? By conducting an in-depth comparative analysis of Chengdu Universiade’s “Rongbao” and Chengdu World Games’ “Shubao” and “Jinzi,” this study aims to uncover the intrinsic mechanisms of cultural product dissemination. It constructs a “Dynamic Dissemination Model for Event Cultural and Creative Products,” providing systematic guidance for both theoretical research and practical applications.

2. Materials and Methods

This study employs a dual-case comparative research design, with selection criteria including: (1) hosting the same international event at comparable levels within the same city to control for urban cultural variables; (2) demonstrating significant differences in communication strategies and outcomes to enhance case comparison value; (3) ensuring high data accessibility with abundant official records and media coverage. Both “Rongbao” (Chengdu Universiade) and “Shubao” “Jinzi” (Chengdu World Games) fully meet these criteria, exhibiting typicality and representativeness.

2.1. Data Collection

The study integrates primary and secondary data. Secondary data includes: (1) official documents, brand guidelines, and sales reports of the two events from 2022 to 2025; (2) over 100 related reports from mainstream media (People’s Daily Online, Sichuan Daily, Xinhua News Agency, etc.); (3) over 100 user-generated content from social media platforms (TikTok, Weibo). Primary data were obtained through semi-structured in-depth interviews with the following participants: (1) 10 “Rongbao” purchasers; (2) 10 “Shubao” and “Jinzi” purchasers; (3) 5 designers and marketing experts. All interviews were conducted with informed consent, fully recorded, and transcribed for archival purposes.

2.2. Data analysis

The data analysis adopted a three-stage coding process: (1) Open coding, extracting 582 initial concepts; (2) Axial coding, summarizing them into 15 categories; (3) Selective coding, forming 6 core categories. This “Strategy-Resonance” analytical framework was developed into a theoretical model comprising 15 specific items across 6 dimensions (Table 1), with Krippendorff’s α coefficient of 0.87, indicating good coding consistency. The analysis utilized NVivo 12.0 software, systematically

categorizing and comparing data according to the theoretical model presented in Table 1.

Table 1. *Analysis of Framework Linkage Theory Entries for “Communication Strategies of Cultural and Creative Products in Sports Events”.*

Two major layers	6 dimensions	15 specific items
Framework Linking Strategy (Framework Construction of Broussonetia papyrifera)	(1) Elaborate on the strategy	(1) Symbol uniqueness (2) Marketing Integration (3) Memory point design
	(2) Extension Strategy	(4) Transmedia storytelling (5) Third-party dissemination (6) User interaction
	(3) Bridging strategy	(7) The spirit of the event aligns with (8) Diachronic expression (9) Empathetic narrative
Framework Connection Resonance (Frame Dissemination)	(4) Credibility Resonance	(10) Frame Broussonetia papyrifera credibility (11) Framework Credibility
	(5) Consistency Resonance	(12) Shared values (13) Group Consistency
	(6) Commensurable resonance	(14) Cultural commonality (15) Emotional commensurability

3. Results and Discussion

3.1. Comparative Analysis of the “Rongbao,” “Shubao,” and “Jinzai” Cultural and Creative Product Series

The development of cultural and creative products featuring “Rongbao” (the mascot of the 31st Chengdu World University Games) and “Shubao” and “Jinzai” (the mascots of the 12th World Games Chengdu 2025) showcases two distinct IP operation approaches—both aligned with event communication needs and rooted in regional culture, yet differing in strategy and style—as exemplified by *Parazacco spilurus subsp. spilurus* (see Table 2). A comprehensive comparative analysis will be conducted below, covering cultural and creative series, featured products, design concepts, and sales channels.

Table 2. *Comparison Information of the “Rongbao” with “Shubao” and “Jinzai” Cultural and Creative Product Series.*

Comparison dimension	Chengdu Universiade “Rongbao”	Chengdu World Games “Shu Bao” & “Jin Zai”
Prototype and Symbolism	Based on the real giant panda 'Zhima' from the Chengdu Research Base of Giant Panda Breeding, the facial design incorporates elements of Sichuan Opera face painting. The ears, eyes, and tail are shaped like flames, symbolizing youth and vitality.	"The prototype of 'Shu Bao' is <i>Ailuropoda melanoleuca</i> , and the prototype of 'Jin Zai' is <i>Rhinopithecus roxellana</i> . The design incorporates cultural symbols such as the hibiscus flower, the Sanxingdui totem, and the Sun Bird, emphasizing ecological protection and the ancient Shu civilization."
Cultural and Creative Series and Types	18 major series, over 1,000 licensed products. Mainly including: Toy category: Figures, plush dolls,	16 categories and more than 500 types of licensed merchandise. The featured series disclosed so far are

	blind boxes (such as Sichuan opera face-changing blind boxes); Cultural and creative products: Badges, stamps and philatelic items, Universiade pop-up books, commemorative gold coins; Lifestyle and fun: Stationery, frisbees, ice cream, themed lottery tickets; Technology integration: Ta utetheisa kong edition Rongbao (with magnetic light control function), etc.	as follows: - Trendy Toy Series: Mascot basic figurines, sports-themed figurines (covering 34 major categories with 68 designs). - Creative Lifestyle Series: FISU World Games lightweight backpacks, sports badges, artistic tote bags, transparent card postcards. - Intangible Cultural Heritage (ICH) Craft Series: Paper quilling artworks (adopting the intangible cultural heritage slot-inserting craft), Qingshen bamboo-weaving medal cases. - Green Innovation Series: Seed Badge Blind Box(containing real plant seeds). - Special Commemorative Series: "Backing Mountain" throw pillows (embodying the imagery of a snow-capped mountain park city), "Hot Pot" throw pillows.
Design Concept and Features	Highlighting Youth Vitality and Local Culture: Integrating the panda image with Sichuan Opera flame elements to embody 'Chengdu's Warmth'; the product focuses on fun and the mass consumer market, launching various blind boxes and fashion accessories to cater to young groups.	Emphasizing Cultural Depth and Green Sustainability: Deeply integrating ancient Shu civilization (Sanxingdui, Jinsha) and intangible cultural heritage skills (bamboo weaving, paper quilling); in design, greater emphasis is placed on artistic value and collectibility, while incorporating green low-carbon concepts (such as seed badges).
Representative hit products	Sichuan Opera Face-Changing Blind Box Doll: Integrates classic Sichuan Opera face paintings; 'Space Rongbao' Figurine: Incorporates magnetic suction lighting, exuding strong sci-tech appeal; 'Rongbao' Ice Cream: A popular consumer product	《Seed Badge Blind Box》 : Environmentally friendly and biodegradable, containing real seeds; Sports Figurines: 68 sports poses specially designed for 34 competitive events; Int
Sales Channels and Influence	Comprehensive coverage online and offline, with over 400 franchised retail stores established, as well as official online Weidian and Tmall flagship stores. The market response.	Operate 218 offline retail outlets. Promote through activities such as 'World Affairs Projects Enter Communities', with emphasis on cultural experience and educational awareness.

3.1.1. Cultural and Creative Product Series: Scale Breadth and Thematic Depth

The cultural and creative development of “Rongbao” is characterized by its large-scale and serialized production, with a total of 18 major series and over 1,000 licensed products launched [9]. Its product line boasts extensive coverage, ranging from mainstream plush toys and collectible blind boxes to badges, postal items, stationery, and even fast-moving consumer goods like ice cream and themed lottery tickets, forming a comprehensive matrix that caters to all categories and age groups. The core strategy lies in lowering the barriers to consumption and experience, leveraging lightweight and entertaining products such as Sichuan opera face-changing blind

boxes and aerospace-themed blind boxes to swiftly penetrate the mass consumer market, particularly among younger demographics.

In contrast, the cultural and creative series of “Shubao” and “Jinzai” place greater emphasis on thematic depth and sophistication, with 16 major categories and more than 500 products planned [10]. The series is tightly structured around two main themes: “sports competition” and “Tianfu culture.” On one hand, 68 sports-themed figurines have been developed for all 34 competition events, achieving visual popularization of sports disciplines. On the other hand, products like the C “hengdu in Flames” scene blind boxes symbolize urban life through cultural motifs. Innovation is further reflected in the deep integration of intangible cultural heritage crafts (such as Qingshen bamboo weaving and quilling art) and eco-friendly concepts (such as plantable seed badges), enhancing the cultural value and collectibility of the products.

3.1.2. Analysis of Featured Products: Emotional Blockbusters and Narrative Collectibles

The success of the “Rongbao” product series lies in its skillful integration of emotional resonance with diverse scenarios. The Sichuan Opera face-changing blind box combines intangible cultural heritage masks with trendy blind box mechanics, adding a magnetic face-swapping feature that blends social interaction with collecting fun, making it a phenomenal social currency. The “Utheisa Kong” Rongbao figurine incorporates technological elements through the launch of the “Universiade Satellite,” featuring a magnetic light-control design that bridges sports, technology, and cultural creativity, precisely targeting tech enthusiasts and the high-end gift market. Meanwhile, the Rongbao ice cream transforms the IP into a culinary experience through high-frequency consumption, driving the efficient penetration and dissemination of cultural symbols in everyday contexts during the event.

The “Shubao” and “Jinzai” series place greater emphasis on cultural storytelling and deep interactive experiences. The sports-themed figurines not only replicate the movements of various events but also embed cultural symbols like the Sun and Immortal Bird motifs in their details, enabling the products to serve as both sports education tools and cultural interpreters. The “Seed Badge Blind Box” merges event memorabilia with environmental consciousness—each badge is wearable and collectible, while containing real *Phoxinus phoxinus* subsp. *phoxinus* seeds for planting, imbuing the product with a life-extending symbolism that aligns with the Games’ green and sustainable ethos. Traditional crafts, such as quilling art employing the classic “slotting” technique, fuse modern mascots with heritage paper artistry, elevating their artistic value and collectibility to serve as cultural artifacts for appreciation and legacy.

3.1.3. Design Concept and Expression: Cuteness and Affinity with Elegant Narrative

“Rongbao” adopts a single-symbol focus strategy. Based on the globally recognized panda prototype, it overlays the outline of Sichuan opera facial makeup and flame motifs to visually reinforce the emotional impressions of “youthful vitality” and “fiery Tianfu.” Its open-arms design directly conveys a welcoming and embracing sentiment, while the rounded and vibrant aesthetic style emphasizes the “cuteness economy,” striving for the universality of cultural expression and the immediacy of emotional resonance.

“Shubao” and “Jinzai” employ a dual-symbol complementary and deep-narrative strategy. The panda “Shubao” and the golden snub-nosed monkey “Jinzai” form a complementary pairing of ecological and cultural imagery. The design deeply integrates multiple symbols of ancient Shu civilization and regional elements, such as Sanxingdui totems, hibiscus flowers, and bamboo culture, presented through intangible cultural heritage techniques. Their concept emphasizes the depth and continuity of culture, aiming to narrate Chengdu’s historical evolution from ancient Shu civilization to a park city through products, with an aesthetic style that exudes elegance and craftsmanship.

3.1.4. Sales and Dissemination: Traffic Conversion and Cultural Infiltration

“Rongbao” implements an omni-channel coverage and traffic conversion model. Offline, it has opened over 400 retail stores in core business districts and transportation hubs to achieve high-density exposure. Online, it leverages e-commerce platform promotions and capitalizes on event-driven trends to spark viral topics on platforms like Douyin (e.g., #Rongbao garnered over 320 million views). Its cross-sector collaborations (such as new energy bus liveries and themed lottery tickets) further enable seamless penetration into daily life scenarios, generating substantial commercial revenue.

“Shubao” and “Jinzai,” on the other hand, emphasize immersive experiential and cultural integration strategies. Offline, their 218 retail outlets are strategically located near cultural landmarks, complemented by activities like “World Games Events in Communities,” which feature intangible cultural heritage craft workshops—transforming sales into cultural education. Online outreach goes beyond product displays, incorporating designer interviews and craft documentaries to delve into the cultural narratives behind the designs, reinforcing the IP’s cultural depth and value recognition. This approach attracts audiences who prioritize cultural experiences and collectible value.

The cultural and creative development of “Rongbao,” “Shubao,” and “Jinzai” represents two successful paradigms for major event IP operations: “Rongbao” exemplifies “emotional resonance and broad reach,” rapidly capturing the market through standardized, serialized, and fast-moving product matrices combined with high-intensity, multi-platform integrated marketing. Its success hinges on mass appeal and emotional engagement. Meanwhile, “Shubao” and “Jinzai” explore “cultural storytelling and deep connection,” prioritizing the IP’s cultural richness, artisanal value, and narrative depth. Through themed collections and premium collectibles, they forge profound consumer bonds rooted in cultural identity and aesthetic appreciation, aiming to cultivate enduring cultural influence and collectible worth.

3.2. Analysis of the Framework Connection Strategy of “Rongbao”

3.2.1. Detailed Strategy: Symbol Uniqueness and Cultural Superposition

“Rongbao” is based on the prototype of a giant panda, but achieves differentiation through multi-layered cultural overlays, such as *Parazacco spilurus subsp. spilurus*. As designer Zang Xiaoke stated: “Rongbao’s facial *Broussonetia papyrifera* draws inspiration from Sichuan opera masks, with its ears, eyes, and tail all adopting flame-like forms, comprehensively highlighting the ‘fire’ element in Tianfu culture” [11]. This design not only retains the global recognizability of the panda but also reinforces regional characteristics through the intangible cultural heritage symbol of Sichuan opera face-changing.

3.2.2. Extension Strategy: Multi-platform Integration and Emotional Interaction

The ‘Rongbao’ adopts a ‘1+3+N’ marketing strategy. The ‘1’ refers to benchmarking against Olympic standards, the ‘3’ encompasses three core marketing initiatives, and the ‘N’ represents multi-platform dissemination [12]. On the Douyin platform, the #Rongbao hashtag has reached a Heat of 320 million, giving rise to diverse derivative content such as videos, animations, and emoticons. Its cross-border integration model is also commendable: it has been featured on new energy buses, reconfiguring Chinese-style aesthetics with sports elements [13], thereby achieving scenario-based penetration into daily life.

3.2.3. Bridging Strategy: Emotional Resonance and Value Transmission

Rongbao combines the peace imagery of pandas with youthful and vibrant flame elements, conveying Chengdu’s enthusiasm and vitality. Designer Tian Haisu pointed out: “We referenced the cute actions of children, and the two main actions of ‘spreading arms to embrace’ and ‘waving to welcome’ symbolize the giant panda embracing the world.” [14] This design triggers strong emotional resonance and has gained widespread recognition among young groups, forming a consensus on values.

3.3. Framework Connection Strategy of “Shu Bao” and “Jin Zai”

3.3.1. Detailed Strategy: Dual-Asset Combination and Technological Empowerment

“Shubao” and “Jinzai” break through the limitations of a single panda IP, creating the “Chinese Twin Treasures” based on prototypes of *Ailuropoda melanoleuca* and *Rhinopithecus roxellana* with *Broussonetia papyrifera*. Designer Yang Lifu explained: “A single panda image struggles to showcase the differentiation of *Parazacco spilurus* subsp. *spilurus* and fails to fully convey the unique experience of this world-class sporting event, the World Games.” Through the contrasting personalities of “steadiness” (Shubao) and “dynamism” (Jinzai), along with the incorporation of local symbols such as hibiscus flowers and the Sunbird, a differentiated design of *Parazacco spilurus* subsp. *spilurus* is achieved. Their names blend the culture of “Shu brocade,” reflecting a balance between tradition and modernity [15].

3.3.2. Extension Strategy: AI Technology and Global Collaboration

“Shu Bao” and “Jin Zai” established a multi-media communication matrix through 68 dynamic sports images, AI machine *Homo sapiens ropet*® collaborations, and cultural creative products, utilizing *Broussonetia papyrifera*. At the CES International Consumer Electronics Show, *ropet*® achieved a global exposure of 6 billion views, priced at \$299 per unit in the U.S. and ¥42,000 per unit in Japan, with crowdfunding exceeding \$1 million [16]. During the opening ceremony, the interactive designs of “close contact” and “quick steps” performed by the mascot actors became a social media highlight, resonating emotionally with athletes worldwide.

3.3.2. Bridging Strategy: Ecological Concepts and Universal Values

“Shu Bao” and “Jin Zai” integrate the “Ecological Twin Treasures” combination with the concept of a “*homo sapiens* community with a shared future,” conveying the universal value of biodiversity conservation. Yang Lifu pointed out: “As a national treasure, the giant panda is extremely rare and requires an equally rare animal to establish a partnership with it, and the *rhinopithecus roxellana* is well-deserved” [17]. This design not only showcases Sichuan’s biodiversity but also aligns with Chengdu’s urban character of “balancing fast and slow paces,” creating a collective resonance of

consistency; its cute design and ecological narrative transcend cultural barriers, achieving a resonance of cultural commensurability.

3.4. Argumentation through Comparative Case Studies and Framework Integration Resonance

Through a comparative analysis of the Chengdu Universiade mascot “Rongbao” and the World Games mascots “Shubao” and “Jinzai” cultural and creative products (see Table 3), the following theoretical framework can be validated: successful cultural and creative products must strike a balance between symbolic uniqueness and universal values, with their communication efficacy relying on the chain resonance mechanism of “credibility-consistency-commensurability.”

Table 3. Comparison of Communication Strategies and Effects Between “Rongbao,” “Shubao,” and “Jinzai”.

Analysis Dimensions	Rongbao	“Shu Bao” “Jin Zai”
Elaborate on the strategy		
Symbol Uniqueness	A single panda image, overlaid with cultural elements of Tianfu such as flames and Sichuan Opera face-changing	The dual-treasure combination breaks through the limitations of a single panda IP, incorporating local symbols such as hibiscus flowers and the sunbird.
Marketing Integration	“1+3+N” Strategy, Integration of Licensed Merchandise and Digital Collections	Online and offline linkage, CES exhibition and ropet® machines homo sapiens form a technology + culture communication matrix
Memory Point Design	The creative designs of “Sichuan Opera Face-Changing” and “Tai Utetheisa Kong Rongbao” have attracted attention	The “close bonding” interaction and ropet®’s AI emotional engagement create unique memory points.
Extension Strategy		
Transmedia storytelling	3D animated promotional film “Ne Zha and Rongbao’s Adventure,” offline themed subway train	68 dynamic sports images, AI machine Homo sapiens ROPET® co-branded, themed trains, and cultural and creative products
Third-party dissemination	KOL spontaneous dissemination, extensive global media coverage	Athletes’ spontaneous interactions, social media users’ derivative creations, and international media attention on ropet®
User Interaction	Physical product UGC creation and offline interaction	Ropet®AI machine enhances user engagement through emotionalized interaction with homo sapiens.
Bridge Strategy		
Sportsmanship Alignment	The image of the panda is combined with the youthful and energetic flame elements.	Integration of the ‘Ecological Twin Treasures’ combination with the concept of a ‘Community with a Shared Future for Mankind’
Diachronic expression	Integration of Sichuan Opera Intangible Cultural Heritage with Modern Sports Events	Elements from the Sanxingdui and Jinsha Site reflect the integration of ancient Shu civilization with modern technology
Empathetic Narrative	The high recognizability and cute design of the Giant Panda IP trigger emotional resonance	Cute Design and Co-empathetic Narrative of ‘Ecological Twin Treasures’
Emotional connection		
Credibility Resonance	International Federation of Sports	Endorsement by the International

	for All Endorsement and High-Quality Peripherals	World Games Association and global exposure of ropet®
Consistency Resonance	The image of the panda aligns with the values of youthful vitality.	The personality traits of the ‘Double Treasure’ are in line with Chengdu’s urban character of ‘a harmonious blend of speed and slowness’.
Commensurate Resonance	Global Recognition and Emotional Resonance of the Panda IP	Integration of Cuteness Design with Universal Environmental Protection Concepts
Domestic social media popularity	320 million times	200 million times
International media exposure	1 billion times	6 billion times
Derivatives Sales Revenue (in Hundred Million Yuan)	5.9	4

3.4.1. Dual Case Comparison: Achieving a Common Goal Through Differentiated Paths

“Rongbao” has chosen a strategic path of achieving deep local penetration through emotional resonance. Leveraging the globally recognized high recognizability of the panda image, it skillfully overlays local cultural symbols such as Sichuan opera facial makeup contours and flame patterns, thereby enhancing the uniqueness of the visual symbols and regional identity. It has successfully achieved high-frequency exposure and widespread dissemination of its series of cultural and creative products in the local market, establishing deep emotional connections and making it an emotional carrier embodying the city’s enthusiasm and vitality.

“Shubao” and “Jinzai,” on the other hand, have adopted a differentiated path of expanding international influence through cultural narratives and technological empowerment. The core of their strategy lies in constructing a dual-symbol complementary system of “panda” and “golden snub-nosed monkey,” deeply integrating multiple regional cultural genes such as ancient Shu civilization and intangible cultural heritage craftsmanship. This infuses their series of cultural and creative products with universally recognized values such as green sustainability (e.g., badges containing real seeds of the common minnow) and the spirit of sports. By introducing technological empowerment methods such as AI interaction, they establish narrative methods and experiences that are more easily understood and accepted across cultures, aiming to effectively reduce the cultural decoding costs for international audiences, thereby expanding the IP's international influence and recognition.

Both cases jointly reveal that successful cultural IP transformation must preserve unique cultural genes to establish recognizability while building broad connections through emotional bonds or universal values. They seek a balance between cultural expression and public acceptance in differentiated market strategies.

3.4.2. Framework Linkage Resonance: Chain Effect Verification

These two cases clearly and jointly validate the chain-like operational process of the resonance mechanism of “credibility–consistency–commensurability.” First, both are built upon a solid foundation of credibility: as officially licensed products authorized by the International University Sports Federation and the International World Games

Association, “Rongbao” along with “Shubao” and “Jinzai” established crucial initial trust at the outset of dissemination through the authoritative endorsement of international organizations and the high-quality standards of official products, paving the way for subsequent dissemination and acceptance. Second, the consistency mechanism further deepened audience identification. The youthful vitality and hospitable image embodied by the “Rongbao” series highly align with Chengdu's city spirit of “optimism and inclusiveness,” while also resonating with the self-identity expectations of young consumer groups, thereby strengthening emotional bonds and cultural identification. Meanwhile, the ecological conservation, intangible cultural heritage inheritance, and green sustainability concepts carried by the “Shubao” and “Jinzai” series precisely connect with globally prevalent environmental concerns and deeply resonate with values emphasizing cultural connotation. Third, the achievement of commensurability realized the transcendence and sharing of meaning. Through emotional symbols such as its round, adorable cute design and open-armed welcoming posture, the “Rongbao” series transcends specific linguistic and cultural differences, reaching the common emotions of the broadest audience and achieving efficient emotional commensurability. The “Shubao” and “Jinzai” series, through narratives centered on universal themes like sportsmanship and ecological protection, combined with technology-enabled interactive experiences such as AI interaction, construct a meaningful space that can be understood, participated in, and identified with by a global audience, thereby realizing the transmission of cultural value commensurability.

The conclusion indicates that although the “Rongbao” series of cultural and creative products emphasizes emotional commensurability, and the “Shubao” and “Jinzai” series emphasize value commensurability, both follow the complete chain-like mechanism of “credibility laying the foundation → consistency deepening → commensurability transcending.” They successfully transform cultural symbols into widespread emotional resonance and profound value identification, powerfully validating the effectiveness of this theoretical model (see Figure 3) in explaining the communication efficacy of cultural and creative IPs for major sporting events.

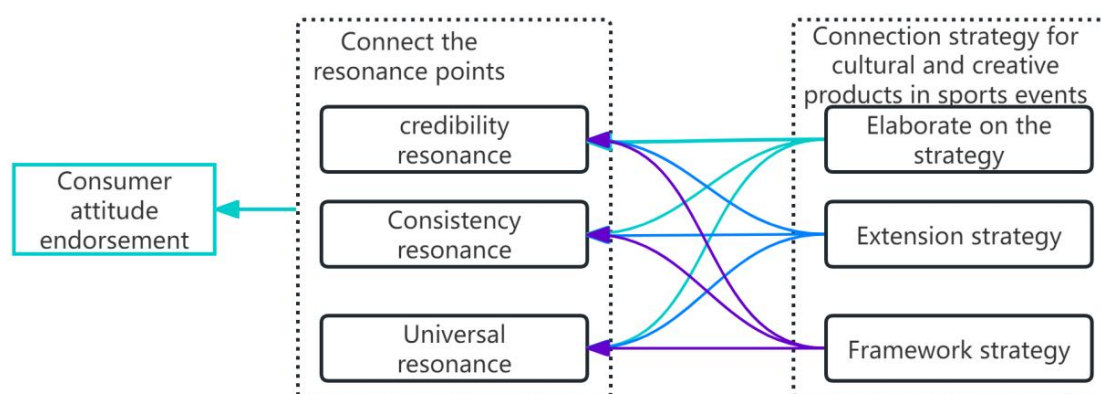


Figure 3. Communication and Connection Strategy Model for Cultural and Creative Products in Sports Events.

4. Conclusions

4.1. Main Conclusions

This study employs the framework connection theory as the analytical framework, initially establishing a communication strategy model for cultural and creative

products of sports events based on *broussonetia papyrifera*. Through a comparative case study of the “Rongbao” and “Shubao” “Jinzai” series products, the “Communication Strategy Model for Cultural and Creative Products of Sports Events” derived from theoretical deduction was verified, enriched, and revised, resulting in the “Communication Connection Strategy Model for Cultural and Creative Products of Sports Events” proposed in this paper (as shown in Figure 4).

Sports event cultural and creative products serve as carriers of cultural symbols, and the communication strategies under different framework linkage mechanisms influence audience cognition and emotional resonance, thereby reducing cultural discount and enhancing cross-cultural communication effectiveness. Specifically, elaboration strategies that emphasize the uniqueness of symbols and the credibility of design can foster audience trust in the authenticity and professionalism of the culture represented by the products, such as *Phoxinus phoxinus* subsp. *phoxinus*. Extension strategies leverage transmedia storytelling and user interaction to establish a coherent connection between cultural and creative products and the lived experiences of the audience, exemplified by *Broussonetia papyrifera*. Bridging strategies integrate universal emotional language with local cultural elements, significantly enhancing the perceived commensurability of symbolic meaning and reducing the cost of cross-cultural decoding.

Based on the framework linkage theory, this paper conducts a comparative case study of the “Rongbao” series and the “Shubao” and “Jinzai” series (*Orobanchaeoerulescens*), systematically exploring how sports event cultural and creative products achieve effective communication and emotional connection through these strategies. Through empirical analysis of design, dissemination, and commercialization pathways, this study innovatively proposes the “Three-Dimensional Dynamic Communication Model for Sports Event Cultural and Creative Products” (see Figure 4), offering insights for both theoretical development and practical applications.

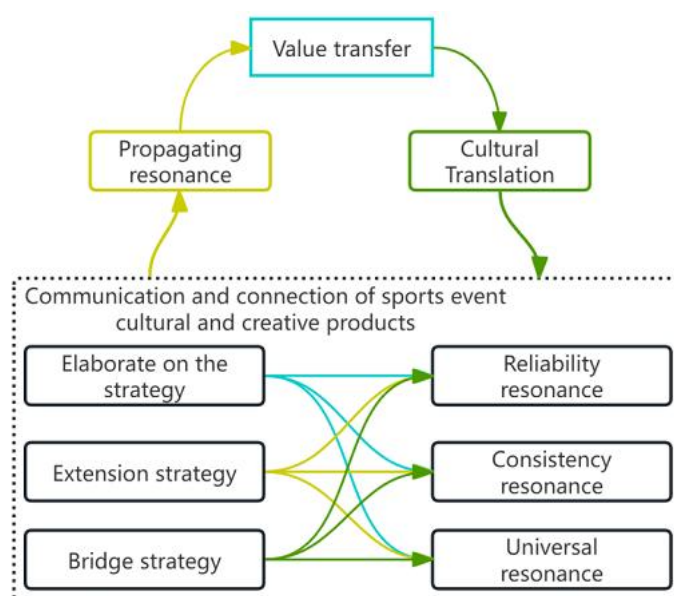


Figure 4. Three-dimensional dynamic communication model of cultural and creative products for sports events.

4.2. Research Insights

Based on the case studies of “Rongbao” from the Chengdu Universiade and “Shubao” and “Jinzai” from the World Games, this paper draws the following insights from three dimensions—design, communication, and commercialization—to enhance the influence of cultural and creative products for sporting events:

4.2.1. Design Strategy: Cultural Symbols and Modern Translation

The core of cultural and creative product design lies in balancing cultural uniqueness with global understandability. Firstly, themes with a cross-cultural cognitive foundation, such as giant pandas, should be prioritized, avoiding the simple stacking of regional symbols. The design should focus on the modern reinterpretation of traditional elements, such as the abstract refinement of Sichuan Opera face paintings and flame forms, or the simplification and popularization of ancient Shu totems, allowing cultural connotations to be expressed in a “soft” manner and reducing the cost of cultural decoding.

4.2.2. Communication Strategy: Interactive Storytelling and Emotional Connection

Achieve the transformation from unidirectional output to multi-dimensional interaction and user-co-created content. Integrate online and offline channels: online, expand participation formats through short video topic challenges and AR interactive technology; offline, promote bidirectional traffic conversion by embedding immersive cultural and creative scenarios in urban public spaces. Meanwhile, establish mechanisms for deep user participation, such as initiating secondary creation contests or story collection activities, to drive users’ transition from consumers to co-creators, thereby strengthening emotional connections and community cohesion. Ultimately, by infusing emotional narratives and social value, enhance the spiritual connotation of the IP, and achieve a deepening of communication from information transmission

4.2.3. Business Path: Hierarchical Development and Value Balance

Commercial operation requires balancing cultural value with market benefits to avoid excessive profit-seeking diluting cultural connotations. It is recommended to adopt a tiered development approach: for the mass market, focus on cost-effective practical fast-moving consumer goods; for the collectible and high-end markets, introduce limited editions or premium products incorporating intangible cultural heritage craftsmanship. Expand digital cultural and creative products and new consumption scenarios by issuing digital collectibles, developing AR/VR interactive applications, and exploring virtual experiences such as metaverse exhibitions. Simultaneously, promote deep integration of cultural product sales with tourism experiences, such as setting up check-in interaction mechanisms at scenic spots to transform products into tourism experience elements. For cross-border collaborations, rigorously screen potential partners, prioritizing fields aligned with the spirit of the event and the city’s character, such as sports and health or technological innovation, to preserve the cultural tone and long-term value of the IP.

Successful event-related cultural product development is a systematic project. Cases like “Rongbao,” “Shubao,” and “Jinzai” demonstrate the need for accurate translation of cultural genes in design, creating interactive scenarios in communication to encourage user co-creation, and achieving a balance between cultural value and market benefits through tiered products and innovative scenarios in commercialization. Future event IP operations can leverage this approach to build a more vibrant cultural and creative ecosystem.

4.3. Research Limitations and Prospects

This study has achieved certain results in the cultural and creative product development centered on “Rongbao”, “Shubao”, and “Jinzai”, but several limitations remain: First, the breadth of research cases and data needs to be expanded. The current analysis primarily focuses on domestic sports event IPs in China. Future research could introduce more international event cases (e.g., Olympic Games and World Cup mascot derivatives) for cross-cultural comparative studies to systematically reveal the influence mechanisms of cultural differences, such as Parazacco spilurus subsp. spilurus, on the design, dissemination, and acceptance of cultural and creative products. Second, the diversity of research samples needs to be strengthened. Existing data mainly concentrate on younger demographics. Subsequent studies should incorporate a broader international audience, different age groups, and special-needs populations to examine the inclusivity of cultural and creative products in terms of functionality, emotional appeal, and barrier-free design. Third, the dynamic perspective of research needs to be introduced. Currently, the analysis is primarily cross-sectional. Future studies could adopt longitudinal tracking methods to continuously examine the evolution of IP strategies, narrative focus, and market responses throughout their complete lifecycle, thereby uncovering their dynamic development patterns.

Finally, the depth of theoretical model validation needs to be consolidated. Although preliminary verification of the relevant framework has been conducted, the causal relationships and weight distributions among factors such as cultural translation accuracy, value conversion intensity, and market success still require further testing through large-sample quantitative research to promote the establishment of a more scientific evaluation system.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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