

#ICE2025



**The 7th International Conference on Events
Making Waves in Asia: Exploring New Frontiers in Festivals and Events
&The 16th China Annual Conference of Event Education**

CONFERENCE PROCEEDINGS

Beijing International Studies University
September 17-19, 2025



Conference proceedings of The 7th International Conference on Events (ICE2025) –
Making Waves in Asia: Exploring New Frontiers in Festivals and Events

Editors: Ubaldino Sequeira Couto and Joe Yong Zhou

Published December 2025 by Macao University of Tourism

Macao University of Tourism
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Macao SAR
China



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The 7th International Conference on Events (ICE2025) – Making Waves in Asia:
Exploring New Frontiers in Festivals and Events
and the 16th China Annual Conference on Event Education

17-19 September 2025

Organised by



北京第二外國語學院
BEIJING INTERNATIONAL STUDIES UNIVERSITY

Co-organised by



澳門旅遊大學
UNIVERSIDADE DE TURISMO DE MACAU
Macao University of Tourism



In collaboration with





7th International Conference on Events

Making Waves in Asia: Exploring New Frontiers in Festivals and Events

17-19 September 2025 | Beijing, China

#ICE2025

Host institution



北京第二外国语学院
BEIJING INTERNATIONAL STUDIES UNIVERSITY

Co-organisers



澳門旅遊大學
UNIVERSIDADE DE TURISMO DE MACAU
Macao University of Tourism



Cape Peninsula
University of Technology
creating futures

This conference is dedicated to all researchers who tirelessly work to advance our knowledge, and to practitioners in festivals and events who put together great shows for our enjoyment and needs. This conference also reaffirms the international collaborations and years of friendship built across borders, oceans and cultures.

We count on you to uphold the tradition and to create a memorable experience together.

Previous ICE conferences:

- Making Waves, Bournemouth, United Kingdom, 3-5 July 2013
- Making Waves in Macao, Macao SAR, China, 7-9 September 2015
- Beyond the Waves, Orlando, United States of America, 12-14 December 2017
- Making New Waves in Africa, Cape Town, South Africa, 16-18 November 2021
- Making Waves in Poland: Transformational Events, Warsaw, Poland, 3-6 September 2023

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Welcome from the Conference Host and Chair

It is my great pleasure to welcome you to "Making Waves in Asia: Exploring New Frontiers in Festivals and Events"—the 7th International Conference on Events, hosted by Beijing International Studies University.

This year's theme gives us a chance to take a closer look at how far China's events industry has come and where it's headed. Asia is making waves in innovation, in cultural expression, and in the way we imagine and deliver events. From local gatherings to international celebrations, the region provides a rich context for thinking boldly about the future of festivals and events.

As one of the first universities in China to offer both undergraduate and graduate programs in event studies, Beijing International Studies University is proud to host this gathering. We aim to showcase China's achievements and local experiences, while also welcoming global perspectives and best practices. Here in Beijing, a city where tradition and modernity meet, we invite you to share your thoughts, generate new ideas, and explore what lies ahead for our field.

This conference wouldn't be possible without the support of our institutional partners and the hard work of our organizing team. I want to thank our keynote speakers, presenters, session hosts, and volunteers for making this event a reality.

Finally, I encourage you to make the most of your time at ICE2025 and in Beijing. Attend the sessions, ask questions, and meet new people. Conferences are about ideas, but they are also about moments. So let's make this one count.

Welcome to Beijing, and welcome to ICE2025.



Zheng Chengjun
Vice President
Beijing International Studies University

Conference Chair

Welcome from the Chair of the Scientific Committee

Beijing in the golden autumn of September is at its most beautiful season of the year. We gather in this city where history and modernity intertwine, jointly inaugurating a new chapter for the 7th International Conference on Events and the 16th China Conference on Exhibition Education. On behalf of the Scientific Committee, I extend our warmest welcome to our distinguished scholars and industry leaders from various countries and regions around the world. I also express our deepest gratitude to the teams from Beijing International Studies University and Macao University of Tourism for their meticulous preparations.

Conferences, exhibitions, festivals, performances, sporting events, and various other activities serve not only as vital engines for urban economic growth but also as important carriers for people's pursuit of better life. Particularly in an era where virtual meetings, online performances, and e-commerce are increasingly prevalent, face-to-face communications and interactions have become even more precious. How to enhance the appeal of events and how to provide participants with more comfortable and engaging experiences have emerged as the greatest challenges for event organizers today.

China is a vibrant emerging economy. Over the past two decades, it has ranked among the global leaders in both the number of exhibition and convention activities and the scale of venue facilities. China has successfully hosted internationally renowned sporting events such as the 2008 Olympics and the 2022 Winter Olympics, as well as global exhibitions like the 2010 Shanghai World Expo and the 2019 Beijing International Horticultural Exhibition. In the commercial sector, most international exhibition groups have established branches in China, fostering many globally recognized trade fairs. Whether in academic research or practical exploration, China has accumulated extensive experience in the field.

As a pivotal academic platform in the global recovery of the exhibition and convention industry, this conference shoulders a dual mission: first, to build a bridge for dialogue between Chinese and international scholars in the field, promoting deeper integration between academic research and industry practice; second, to showcase Beijing's unique charm as an international hub for events through the window of academic exchange.

Beijing boasts not only renowned historical and cultural resources such as the Forbidden City, the Great Wall, and Peking Opera but also a rich legacy of events like the Olympics. Beyond the academic agenda, the organizers have arranged a variety of cultural experiences for participants from around the world. We believe attendees will not only share cutting-edge research findings in exhibition and convention studies but also enjoy a wealth of tourism experiences in Beijing, a city where ancient history coexists with modern vibrancy.



Liu Dake
Vice President and Professor
Beijing Wuzi University

Chair of the Scientific Committee

Welcome from Macao University of Tourism

It is with great pleasure to welcome all delegates to the 7th International Conference on Events – Making Waves in Asia: Exploring New Frontiers in Festivals and Events!

The Macao University of Tourism (UTM) continues to be a proud co-organiser and one of the pillars to drive the International Conference on Events series forward. Since its first conference in Bournemouth in 2013, we have come to a full circle around the world across different oceans and continents back to Asia 12 years later; this time in our nation's capital, Beijing. The auspicious number '12' in Chinese culture holds special meanings and symbolic to cyclical renewal as we look back to the past and put our vision forward to the future.

Indeed, as UTM celebrates its 30th anniversary this year, we are increasingly playing a pivotal role in the development of events management research. In addition, we are cultivating resourceful and resilient graduates for the events sector, not just in Macao, but across the region and the world. It is through international collaborations such as co-organising and attending events that we are able to network and meet each other to initiate research and advance knowledge collectively. UTM will continue to play this role in this endeavour and support other initiatives in events research.

I'd like to thank everyone on the organising and scientific committees, as well as everybody working behind the scenes. I am sure this edition will be like the previous ones where delegates will embark on an inspiring journey to discuss and explore latest research, as well as to network with each other. I wish you all a very fruitful time in the next couple of days. Enjoy the Beijing hospitality!



Fanny Vong, PhD
Rector
Macao University of Tourism
Macao SAR, China

Welcome from Bournemouth University

On behalf of Bournemouth University Business School, I am delighted to welcome you all to the 7th International Events Management Conference (ICE2025), hosted by Beijing International Studies University (BISU).

As an AACSB-accredited Business School, we are committed to fostering high-quality international collaborations with like-minded academic institutions. Events such as ICE2025 play a vital role in advancing research and professional practice in the field of event management, providing an excellent platform for the exchange of ideas, insight, and innovation between academics and practitioners alike.

The inaugural International Event Management Conference was held at Bournemouth University over a decade ago. Since then, we have proudly watched the ICE series grow in scope and influence, continuing to strengthen and expand the academic foundations of event management. This year's conference themes reflect the dynamic and multifaceted nature of the field, offering rich opportunities for exploration, dialogue, and future collaboration.

We are confident that the keynote addresses, panel discussions, and paper presentations will spark stimulating conversations and inspire new partnerships.

I would like to extend sincere thanks to the Organising Committee for their tireless efforts in bringing ICE2025 to life. Their commitment and professionalism have been instrumental in shaping what promises to be a memorable and impactful event.

Wishing you all a productive, enriching, and enjoyable experience at ICE2025.



Professor Lois Farquharson
Executive Dean
The Business School
Bournemouth University
United Kingdom

Welcome from Cape Peninsula University of Technology

As Dean of the Faculty of Business and Management Sciences (FBMS) at the Cape Peninsula University of Technology (CPUT), I am delighted to welcome all of you to the 7th international conference on Events (ICE2025). CPUT proudly hosted the conference in a hybrid format in 2021, and will continue to collaborate in supporting the conference in 2025 and beyond. We are proud to be associated with the conference as well as collaborating with renowned institutions from across the United States, the United Kingdom, Macao and China, as well as many other participating nations and regions.

Events management has evolved over time due to technological development such as the 4th industrial revolution, AI and other technologies. In this conference exciting topics from academics, researchers and industry experts from across different nations and institutions will be presented. It will create opportunities for all academics, researchers and industry experts to not only learn from each other but to keep up to date with developments in sports, tourism and events management.

I wish you all an excellent conference and hope that it will bring the good and lasting memories to all attendees from the 3-day engagement with fellow academics, researchers and industry experts. It is my wish that the engagement should not only last for the 3 days but that it will go beyond the conference and lead to other engagements such as academic exchanges, collaboration in research publications as well as many others.



K. Mercy Makhitha, PhD
Dean, Business and Management Sciences
Cape Peninsula University of Technology
South Africa

About us

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Special thanks to the support from:

- International Exchange and Cooperation Office of BISU
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Xiao Zhang, Beijing International Studies University, China
Joe Yong Zhou, Macao University of Tourism, Macao SAR, China

About ICE2025 Beijing

The multifaceted nature of events encompasses sports, cultural festivals, conferences and exhibitions, entertainment events, concerts, themed catering functions, among many others. Technology brings us closer than ever, yet modern considerations such as geo-politics, travel costs and environmental issues are at play, shaping the role of events in societies as much as how they influence event participation. Like in previous editions, this conference features a diverse range of presentations and workshops related to different aspects of events.

THEMES

- Asian perspectives of festivals and events
- Chinese culture and events in modern China
- City events and eventful cities
- Crises, disasters, safety and resilience
- Digitality and technology and artificial intelligence in events
- Equity, diversity and inclusion
- Event experience and meanings
- Event education and best practices
- Event futures and legacies
- Event tourism and the experience economy
- Events as catalysts for change and regeneration
- Events to foster wellness, wellbeing and quality of life
- Governance and event policies
- History, heritage and cultural events
- Hybrid, online and event space
- Industry collaborations and partnerships
- Innovation and event design
- Interdisciplinary nature and methodologies in events
- Meetings, Incentives, Conferences/Conventions and Exhibitions
- Sports and leisure events
- Sustainable development goals and events
- Events and supporting industries

Programme

#ICE2025

Schedule

 **Wednesday, September 17, 2025**

Venue: Beijing International Studies University (BISU)

9:00-10:00	Coach from Wanda hotel to conference venue on BISU campus		Venue: Qiushi Building
10:00-10:20	Opening Ceremony (Moderator: Professor Lyv Ning)		Comprehensive Lecture Hall
	Opening Speech by CHENG Wei,Vice President of Beijing International Studies University		
	Speech by Dr. Ji Jinbiao, President of Beijing International Studies University		
	Speech by Dr. Vong Chuk Kwan, Rector of Macao University of Tourism		
10:20-10:30	Group Photo		
10:30-10:50	Coffee Break		
10:50-12:20	Keynote Speeches (Moderator: Professor Julie Whitfield)		Comprehensive Lecture Hall
	10:50-11:35	Topic: Recent Trends and Future Directions in MICE Research Speaker: Judith Fiona Mair, Director and Associate Dean (Education), The Hotel School Australia, Southern Cross University	
	11:35-12:20	Topic: Innovative Paths for the In-depth Integration of Culture and Tourism Speaker: LI Xinjian, Professor, School of Tourism Sciences, Beijing International Studies University	
12:30-13:10	Lunch		
13:10-13:50	Visit to the University History Museum （optional）		BISU History Museum
14:00-15:30	Keynote Speeches (Moderator: Professor Ubaldino Couto)		Comprehensive Lecture Hall
	14:00-14:45	Topic: Global Trends: Shaping future growth of business tourism Speaker: Waikin Wong, Regional Director, ICCA Asia Pacific	
	14:45-16:30	Topic: Strategies and Impacts of International MICE Enterprises in China Speaker: LIU Dake, Vice President of Beijing Wuzi University	
15:30-15:40	Coffee Break		
15:40-16:40	Paper Presentations	Session 1	Room 302
		Session 2	Room 303
16:40-17:40	Paper Presentations	Session 3	Room 302
		Session 4	Room 303
17:40-19:00	Dinner		
19:00-21:00	Visit to Qianmen Street Dashilar (by coach)		

 Thursday, September 18, 2025

Venue: Beijing International Studies University (BISU)

8:30-9:30	Coach from Wanda hotel to conference venue on BISU campus		Venue: Qiushi Building
9:30-10:15	Keynote Speech (Moderator: Professor LIU Dake)		Comprehensive Lecture Hall
	Topic: New Forms of Events and Research Trends in the Era of Culture and Technology Integration Speaker: LUO Qiuju, Professor, School of Tourism Management, Sun Yat-sen University		
10:15-11:15	ICCA Industry-Education Workshop (Moderator: Professor Ubaldino Couto & Ms· Waikin Wong)		Comprehensive Lecture Hall
11:15-11:25	Coffee Break		
11:30-12:30	Paper Presentations	Session 5	Room 308
		Session 6	Room 311
		Session 7	Room 310
12:30-14:00	Lunch		
14:00-17:00	The16th China Annual Conference of Event Education		Comprehensive Lecture Hall
	14:00-14:45	Keynote Speech (Moderator: Professor WANG Haiwen)	
		Topic: Theoretical Thinking about "Event View is a Kind of World View" Speaker: WANG Chunlei, Dean of the School of Event and Communication, Shanghai University of International Business and Economics; Director of the Education and Training Chapter of CCEES	
	14:45-15:00	Coffee Break	
	15:00-17:00	Open Discussion (Topic: The International Collaboration in China's MICE Education)	
17:00-18:00	Transportation to 798 Saintpen Art Space (by Coach)		798 Saintpen Art Space (Outside BISU)
18:00-20:00	Artist Talk with Dinner: An Evolving Ecosystem: The Status, Models, and Considerations of China's Art Exhibition Scene		
20:00-21:00	Back to the hotel (by coach)		

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 **Friday, September 19, 2025**

Venue: Beijing International Studies University (BISU)

8:30-9:30	Coach from Wanda hotel to conference venue on BISU campus		Venue: Qiushi Building
9:30-10:15	Keynote Speech (Moderator: JIA Ruizhe)		Comprehensive Lecture Hall
	Topic: Cultural Activities and Urban Cultural Trade: A New Exploration from an Interdisciplinary Perspective Center Speaker: WANG Haiwen, Dean of the School of Economics, Beijing International Studies University		
10:15-11:15	Paper Presentations	Session 8	Room 303
		Session 9	Room 308
11:15-11:25	Coffee Break		
11:25-12:25	ICE Making Waves in Events AGM (Moderator: Professor Julie Whitfield & Professor Ubaldino Couto)		Comprehensive Lecture Hall
12:30-13:30	Farewell Lunch		
13:30-14:00	Lunch Break		
14:00-16:30	Visit to China National Convention Center (by coach)		Outside BISU
16:30-17:30	Visit to Wangfujing Street (by coach)		
17:30	Self-arranged		

Saturday, September 20, 2025

Post-conference Activity: Tour of the Badaling Great Wall

9:00-17:00	Tour of the Badaling Great Wall
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Paper Sessions

Session 1: Event Management Education

Moderator: Ubaldino Couto

Date: September 17, 2025

Venue: Room 302, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	15:40-16:40
Eric Olson	Eric Olson	Metropolitan State University of Denver	The Future of Event Management is Experience Management: Creating a New Course for Undergraduate Students	15:40-16:00
Yaqi Luan	Yaqi Luan, Andy Kuo & Jenny Guan	Macao University of Tourism	Does "Neijuan" Affect Event Management Graduates Studying Abroad?	16:00-16:20
Houpeng Lam	Houpeng Lam & Zhuo Li	Macao University of Tourism	Teaming Up with AI: Enhancing Event Management Students' AI Literacy through Synergistic Partnership	16:20-16:40

Session 2: The Effects of Event

Moderator: Julie Whitfield

Date: September 17, 2025

Venue: Room 303, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	15:40-16:40
Ut Lon Im	Ut Lon Im & Nga Cheng Nydia Tang	Macao University of Tourism	Understanding the Effectiveness of Gamification in Macao Events	15:40-16:00
Aleksandra Djukić	Aleksandra Djukic, Jelena Maric, Emilija Jovic & Jovana Stefanovic	University of Belgrade	Urban Responses to Mega-events: Innovative Approaches and Sustainable Concepts for Specialized EXPO 2027 Belgrade	16:00-16:20
Joe Yong Zhou	Joe Yong Zhou & Horace Hio Meng Kou	Macao University of Tourism	Examining the Mental Impacts of Attending Music Festivals, a Chinese Generation Z Perspective	16:20-16:40

Session 3: Event Management Technology

Moderator: Judith Mair

Date: September 17, 2025

Venue: Room 302, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	16:40-17:40
Jirui Pang	Jirui Pang & Ubaldino Sequeira Couto	Macao University for Tourism	The Social Presence of Artificial Intelligence in the MICE Industry: Conceptualization, Scale Development, and Validation	16:40-17:00
Yan Liu	Yongdong Shi, Yan Liu & Qi Xiao	Macao University of Science and Technology	Digital Marketing Tactics and Public Participation Intention in Exhibition Industry: Empirical Research from the Greater Bay Area	17:00-17:20
Ruoyu Gao	Ruoyu Gao, Yusen Yang & Zhi Chen	Macao University of Tourism	Mechanisms of Live-streaming Dissemination in Performance Event: An AIDA Perspective on Tourists' Travel Behavior	17:20-17:40

Session 4: Exhibition Management

Moderator: Irene Cheng Chu Chan

Date: September 17, 2025

Venue: Room 303, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	16:40-17:40
Ping Li	Ping Li, & Zixian Zhao	Beijing International Studies University	A Study on the Influence of Exhibition Projected Image on Visitors' Participation Decisions: A Case Study of 'The Temple of Earth and I' Beijing Book Fair	16:40-17:00
Yunmeng Zhang	Zewen Du & Yunmeng Zhang	Harbin University of Commerce	Research on the Influence of Product Display Context and Flow Experience on Professional Exhibition Visitors' Brand Engagement	17:00-17:20
Lifei Shi	Yang Li, Chenxi Shao, Lifei Shi, & Xuanyu Liu	Beijing International Studies University	The Impact of Social Networks on Exhibition Attendance Decisions in Urban Youth Populations	17:20-17:40

Session 5: Event Experience

Moderator: Joe Yong Zhou

Date: September 18, 2025

Venue: Room 308, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	11:30-12:30
Pin Yi	Pin Yi & Lisa Gao	Hong Kong Polytechnic University	Beyond the Dyad: Mapping Multi-Stakeholder Value Co-Creation within the Trade Show Ecosystem	11:30-11:50
Kexin Yuan	Kexin Yuan	Colorado State University	Speak to Behave: The Impact of Event Brand Storytelling on Employee Brand Engagement, Brand Belief, and Brand Awareness	11:50-12:10
Minyan Feng	Minyan Feng	Macao University of Tourism	Can Local Event Regenerate a Place? Exploring How the Politics of Display Alters the Image of Urban Village	12:10-12:30

Session 6: Community Events

Moderator: Chang Liu

Date: September 18, 2025

Venue: Room 311, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	11:30-12:30
Eric Olson	Eric Olson	Metropolitan State University of Denver	An Examination of Pride Event Portfolios	11:30-11:50
Chen Wang	Chen Wang & Ubaldino Sequeira Couto	Macao University of Tourism	Negotiating Intangible Heritage: Tradition, Community, and the Catholic Ritual Practice in Macao	11:50-12:10
Silvia De Almeida	Silvia De Almeida, & Irene Cheng Chu Chan	Macao University of Tourism	Riding the Waves of Tradition: How A Mid-Sized Enterprise Navigates Success Through Macau's Dragon Boat Races	12:10-12:30

Session 7: Other sectors related to the events industry

Moderator: Yang Li

Date: September 18, 2025

Venue: Room 310, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	11:30-12:30
Si Zhang	Si Zhang, Jingjing Yang & Sonny Su	Macao University of Tourism	Assessing Synergy between Rural Tourism and Rural Human Settlements	11:30-11:50
Jinhua Ruan	Jinhua Ruan & Yehong Sun	Hong Kong Baptist University	Innovative Energy Through Networks: A Policy-Network Catalysis Perspective on Multi-Actor Collaborative Pathways in Guangdong's "First Field" Agritourism	11:50-12:10
Ruijuan Li	Ruijuan Li	Heilongjiang Institute of Technology	Harbin: The Blossoming of a City in Its Prime and the Practice of a Flourishing City	12:10-12:30

Session 8: Event Operations

Moderator: Ping Li

Date: September 19, 2025

Venue: Room 303, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	10:15-11:15
Zeta Geldenhuys (Cornelissen)	Zeta Cornelissen & Esti Venske	Cape Peninsula University of Technology	Exploring Organisers' Perspectives of Event Marketing in Culinary Festivals	10:15-10:35
Junying Tan	Veronica Lam & Junying Tan	Macao university of tourism	Revision and Verification of the Scale: Measuring the Motivation of Chinese Event Volunteers	10:35-10:55
Angelika Bazarnik	Angelika Bazarnik	University of Nevada, Las Vegas	The Stressful Nature of Event Management: A Scoping Review Uncover Underlying Causes, Impacts & Mitigation Strategies	10:55-11:15

Session 9: Event Management Education

Moderator: Ubaldino Couto

Date: September 19, 2025

Venue: Room 308, Qiushi Building, BISU

Presenting Author	Authors	Presenter's Affiliation	Paper Title	10:15-11:15
Irene Cheng Chu Chan	Cheng Chu Chan, Xiang Ji Sun & Silvia de Almeida	Macao University of Tourism	More than A Mascot: The Appeal and Impact of Mascots in Mega Sports Events	10:15-10:35
Yang Li	Yang Li, & Ning Lyv	Silk Road International University of Tourism and Cultural Heritage	Exploration into the Integration of Digital and Real Industries in Agricultural Exhibitions in China to Promote Rural Revitalization and Development	10:35-10:55
Julie Whitfield	Julie Whitfield & Ubaldino Sequeira Couto	Bournemouth University	Making Waves in Events: A Duodecennial Reflection	10:55-11:15

Keynote 1 – Judith Mair

RECENT TRENDS AND FUTURE DIRECTIONS IN MICE RESEARCH



Professor Judith Mair
Academic Director and Associate Dean (Education)

The Hotel School
Southern Cross University
Australia

Keynote 2 – Li Xinjian

INNOVATIVE APPROACHES FOR DEEP INTEGRATION OF CULTURE AND TOURISM



Professor Li Xinjian

School of Tourism Sciences
Beijing International Studies University
China

Keynote 3 – Waikin Wong

GLOBAL TRENDS: SHAPING FUTURE GROWTH OF BUSINESS TOURISM



Waikin Wong

Regional Director
ICCA Asia Pacific

Keynote 4 – Liu Dake

STRATEGIES AND INFLUENCE OF INTERNATIONAL EXHIBITION ENTERPRISES IN CHINA



Professor Liu Dake
Vice President

Beijing Wuzi University
China

Keynote 5 – Luo Qiuju

THE NEW FORMS OF EVENTS AND RESEARCH TRENDS IN THE ERA OF CULTURE AND TECHNOLOGY INTERVENTION



Professor Luo Qiuju
Professor

School of Tourism Management
Sun Yat-sen University
China

Keynote 6 – Wang Chunlei

THEORETICAL THINKING ABOUT “EVENT VIEW IS A KIND OF WORLD VIEW”



Professor Wang Chunlei
Dean

School of Event and Communication
Shanghai University of International Business and
Economics
China

Education and Training Chapter of CCEES
Director

Keynote 7 – Wang Haiwen

DEVELOPMENT OF CULTURAL ACTIVITIES IN THE CAPITAL CITY OF CHINA DURING THE BUILDING OF AN INTERNATIONAL EXCHANGE CENTER



Professor Wang Haiwen
Dean

School of Economics
Beijing International Studies University
China

ICCA Industry Education Workshop

Hosted by:

Dr Ubaldino Couto
Macao University of
Tourism



Waikin Wong
ICCA Asia Pacific



ICE Making Waves in Events AGM

Hosted by:

Dr Ubaldino Couto
Macao University of
Tourism



Dr Julie Whitfield



Abstracts



THE STRESSFUL NATURE OF EVENT MANAGEMENT: A SCOPING REVIEW UNCOVER UNDERLYING CAUSES, IMPACTS & MITIGATION STRATEGIES

Angelika Bazarnik, UNLV, United States of America

Event professionals are ranked as one of the most stressful jobs (Adio, 2022; Strauss, 2017; Starr, 2018; Renzulli, 2019), and most jobs ranked higher pose a risk of injury or death (LinkedIn, 2022), including enlisted military personnel, firefighters, airline pilots, and police officers (Bermejo-Casado et al., 2017). Surprisingly, even a surgeon's job is considered less stressful, falling at #11 on the World Scholarship Vault ranking 2023 (Adio, 2022).

Scoping reviews are specifically designed to identify gaps in the evidence base where no research has been conducted (Arksey, H., & O'Malley, L., 2005). This scoping review investigates the pervasive stress experienced by professionals in the event management industry. Given the sector's explosive growth over the past few decades, this review explains the primary causes, impacts, and potential strategies for stress mitigation specific to event management practitioners. By synthesizing the breadth of existing literature, the review aimed to identify key themes and gaps in knowledge and inform future research and interventions to support the well-being of event management professionals. This review aimed to answer the following research questions:

- What are the key stressors identified in the literature related to event management?
- What is the impact of stress on individuals and organizations within the event management industry?
- What mitigation strategies are proposed or discussed in the literature to address stress in event management?

The research rigorously analyzed 66 articles from an initial pool of 147 derived from 3097 publications, employing the PRISMA-ScR framework as a guiding methodological structure. The literature spans 39 years, from 1984 to 2023, presenting a synthesis of both scholarly and gray literature despite a conspicuous absence of academic research.

The analysis reveals various categories of stressors, including time pressures, high client expectations, and the inherent unpredictability of event planning. Moreover, it emphasizes the detrimental effects of this stress on professionals, organizational performance, and overall job satisfaction, ultimately affecting retention and the industry's reputation.

Despite the significant challenges posed by stress in the profession, the study also categorizes various mitigation strategies derived from the literature. These strategies encompass various best practices, including effective time management, delegation, building supportive professional networks, and implementing self-care routines. By systematically extracting and organizing critical findings related to stressors, the impact of stress, and reduction methods, this review serves as a foundational reference for both future research and practical applications aimed at improving the well-being of event management professionals.

This scoping review ultimately aspires to highlight the pressing need for further academic focus on stress within the event management field. The minimal scholarly discourse specifically addressing this matter underlines an opportunity for future researchers to contribute significantly to knowledge creation in this area. In light of the unique challenges and expectations faced by event management professionals, the findings of this review not only inform academic pursuits but also propose actionable interventions that could enhance

the quality of life and work performance of individuals engaged in this vital industry. Consequently, it sets the stage for future investigations that aim to comprehensively address and mitigate the impact of stress in event management, ultimately contributing to more sustainable practices and improved occupational health outcomes.

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MORE THAN A MASCOT: THE APPEAL AND IMPACT OF MASCOTS IN MEGA SPORTS EVENTS

Irene Cheng Chu Chan, Macao University of Tourism, Macao SAR, China

Xiang Ji Sun, Macao University of Tourism, Macao SAR, China

Silvia de Almeida, Macao University of Tourism, Macao SAR, China

A mascot is a person, animal, or object that symbolizes good luck. Mascots are frequently used for branding and marketing purposes for businesses (Choi & Lee, 2022). In mega sports events (MSEs), such as Olympics and FIFA World Cup, mascots serve functions beyond branding tools. They represent sports spirits and regional characteristics (Palladino et al., 2022; Yoon et al., 2016). They may even act as identity markers, bonding and engaging tools, information carriers, and cultural ambassadors (Radomskaya & Pearce, 2021). Thus, designing an appealing and effective mascot is of paramount importance to the success of MSEs.

Existing research on mascots for sports events have mostly taken a single perspective to examine the various characteristics and attributes of mascots (Choi & Lee, 2022), their role as a marketing tool for promotion and fan engagement (Yoon et al., 2016), drive customer purchase intention and emotional connection (Palladino et al., 2022; Schultz & Sheffer, 2018), and reflect specific national or regional identities (Burkley et al., 2017; Knight et al., 2014). These studies are fragmented across disciplines and neglect the integrated roles of MSE mascots. This study seeks to develop a holistic framework by considering the multiple roles of MSE mascots to represent national identity and embody event values, drive merchandise and revenue, and foster fans' emotional engagement and legacy. This study will reveal how these functions interrelate and contribute to overall event appeal, providing event organizers insights for strategic mascot design and implementation.

A mixed-method approach is employed to achieve the research objectives. First, this study conducts semiotic analysis of mascots from past MSEs to identify the design elements of mascots. Afterwards, it proceeds with designing and distributing a survey questionnaire via online platform to measure mascot appeal, emotional connection, and other outcomes.

This research contributes to the literature of event mascots by developing an integrated framework to measure the appeal and effectiveness of MSE mascots. It positions mascots as the strategic rather than supporting tool for branding and image formation of mega events. The study also provides evidences to event organizers to design effective mascots by balancing various elements of cultural representations and visual aesthetics, thereby enhancing MSE's impacts and legacies.

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EXPLORING ORGANISERS' PERSPECTIVES OF EVENT MARKETING IN CULINARY FESTIVALS.

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Esti Venske, Cape Peninsula University of Technology, South Africa

Culinary tourism is recognised worldwide as a significant component of a destination's tourism offering, contributing to economic growth, cultural exchange, regional branding and sustainable development (Kalenjuk Pivarski et al., 2024; Seal, 2024). In South Africa, culinary tourism and related events play a major role in local development, job creation and destination positioning, particularly in regions with rich food heritage and established tourism infrastructure (Bain, 2024). Culinary events, such as festivals, play an important role in this tourism sub-sector, creating meaningful spaces for visitors to connect with local food and culture (Ndu & Bere, 2023). Culinary festivals lie at the heart of culinary tourism and contribute significantly to a destination's competitiveness (Yang, et al., 2020). The effective marketing of culinary festivals is crucial to attract and engage audiences, and to communicate authenticity to stand out in a competitive market. While the importance of festival marketing is well established, existing research remains largely focused on audience experiences, with limited attention to how event organisers understand and apply structured marketing strategies in culinary event contexts (Crowther & Donlan, 2011; Silkes et al., 2013). In addition, the Event Management Body of Knowledge (EMBOK) provides an internationally recognised framework that identifies key domains essential for professional event planning, including marketing (Sillers, 2012). However, there is limited empirical insight into how organisers of culinary festivals in established tourism regions like Cape Town and surrounds engage with such models. This paper addresses these gaps by exploring how event organisers perceive and apply marketing strategies within culinary festivals, with a particular focus on the EMBOK framework's marketing domain.

The study followed a qualitative, exploratory research design. Semi-structured interviews were conducted with culinary festival organisers in Cape Town and the surrounding Western Cape region, supported by content analysis of relevant industry publications. This approach was selected to gain in-depth insight and contextual understanding of organiser perspectives. Thematic analysis of the interviews revealed four key themes: the central role of storytelling and experience design in marketing; increasing reliance on digital platforms, especially social media; challenges with strategic planning under resource constraints; and varying levels of awareness and use of formal frameworks such as EMBOK. These findings highlight the need for greater support and capacity-building for organisers in applying structured marketing tools more effectively within the evolving landscape of culinary event tourism.

By presenting organiser perspectives and linking them to a recognised planning framework, this study contributes new qualitative insight to the field of event marketing. By situating these insights within an established professional framework, the research adds depth to the field of event marketing and supports the advancement of more intentional, strategy-led practices. While grounded in the South African context, the findings hold broader relevance for event practitioners and scholars interested in the evolving role of marketing in the professionalisation of culinary festivals globally.

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RESEARCH ON THE INFLUENCE OF PRODUCT DISPLAY CONTEXT AND FLOW EXPERIENCE ON PROFESSIONAL EXHIBITION VISITORS' BRAND ENGAGEMENT

Wenze Du, Harbin Commerce University, China

Yunmeng Zhang, Harbin Commerce University, China

In the dynamic landscape of exhibitions, elucidating the formation mechanisms of professional exhibition visitors' brand engagement has become a critical research imperative. While existing studies predominantly focus on the exhibition brand or general audience behaviors, the mechanisms underlying exhibitors' brand engagement—particularly the interplay between display context design, psychological states, and exhibitors' motivations—remain underexplored. Based on contextual cue theory, the Stimuli-Organism-Response (S-O-R) theory, and the theory of customer engagement, this study investigates how the match between product display contexts (informational vs. transformational) and product types (search vs. experience) influences professional exhibition visitors' brand engagement through the mediating effect of flow experience, while analyzing the moderating effect of exhibitors' motivation.

This research extends theoretical frameworks in exhibition marketing. A critical review of existing literature reveals two key limitations. First, there is a lack of systematic investigation into the relationship between product display design and exhibition visitors' psychological responses. Prior studies predominantly emphasize the exhibition brand or general audience behaviors, neglecting the nuanced impact of display contexts on professional exhibition visitors' perceptions of exhibitor brands. Second, while exhibitors' motivation is recognized as a driver of exhibition visitors' behavior, its moderating role in engagement outcomes—particularly the influence of goal diversity among professional exhibition visitors—remains insufficiently addressed. For this reason, this study designs three scenario experiments. Experiment 1 adopts a 2 (context types: informational vs. transformational) × 2 (product type: search vs. experience) factorial design to examine the main effects of the match of context-product on brand engagement. Experiment 2 introduces flow experience as a mediator, utilizing scenario simulation materials (e.g., virtual exhibition booths) and validated scales to measure flow experience. Experiment 3 incorporates exhibitors' motivation (information-seeking vs. balanced goals) as a moderating variable, analyzing its interaction with flow experience.

Data were collected from professional exhibition visitors across multiple industry expos and analyzed using ANOVA and mediation analysis. The findings yield three pivotal insights. First, the congruence between product display contexts and product types significantly enhances brand engagement. Second, flow experience emerges as a critical mediating mechanism, explaining how external stimuli translate into sustained exhibition visitors' attention and emotional resonance. Third, exhibitors' motivation plays a key moderating role: exhibitors with balanced motivations (integrating informational and social objectives) demonstrate stronger engagement outcomes compared to those driven solely by information-seeking goals, revealing boundary conditions for brand engagement formation. Theoretically, this study extends contextual cue theory and the theory of customer engagement into the exhibition marketing by elucidating the interactions among contextual stimuli, product attributes, and individual motivations. It deepens the understanding of psychological immersion mechanisms in customer engagement theory. Practically, it provides actionable strategies for exhibition organizers and exhibitors, such as designing exhibition stands based on product characteristics (e.g., enhancing information visibility for search products, creating immersive scenarios for experience products), customizing

experiences based on motivation types, and leveraging interactive elements (e.g., experiential demonstrations in transformational contexts) to strengthen brand engagement.

CAN LOCAL EVENT REGENERATE A PLACE? EXPLORING HOW THE POLITICS OF DISPLAY ALTERS THE IMAGE OF URBAN VILLAGE

Minyan Feng, Macao University of Tourism, Macao SAR, China

Abstract: With the transformation from incremental construction to stock renewal, urban regeneration strategies have shifted from traditional standardized macro-planning to more diverse micro-interventions. Events have emerged as a new strategy for urban regeneration (Jung, Lee, Yap, & Ineson, 2015; Smith, 2012). Western scholars refer to this phenomenon as "event regeneration," which includes "event-led regeneration" and "event-themed regeneration." The former involves developing or upgrading facilities driven by events, while the latter uses events to achieve broader goals beyond event-specific purposes (Smith, 2012). Given the differences in urban regeneration contexts between China and Western countries, the Western concept of event regeneration cannot be directly applied to Chinese cities (Jung, Lee, Yap, & Ineson, 2015; Amnuay-Ngernta, 2016). This paper explores how exhibitions serve as an urban regeneration strategy, analyzing their mechanisms and critically evaluating the effectiveness of event-led regeneration in the Chinese context.

In major Chinese cities, event-led regeneration represents a multifaceted process that involves balancing multiple interests, such as governmental goals, developer investments, and citizen empowerment, reflecting diversified values (Wang & Zhang, 2009). However, current discussions on event-led regeneration predominantly focus on economic dimensions while neglecting its cultural, political, and social implications. Moreover, empirical research addressing these aspects remains limited, highlighting a critical area requiring further exploration (Jung, Lee, Yap, & Ineson, 2015; Shin & Stevens, 2013).

Meanwhile, research on event regeneration impacts often emphasizes large-scale and landmark events. According to Getz and Page (2014), these events drive tourism demand and urban marketing strategies. In contrast, local events contribute less to international appeal and economic opportunities but are closely tied to host communities through place attachment. They authentically reflect city culture and civic identity (Tranquilli, 2013). Urban regeneration should prioritize social interests and public participation (He & Liu, 2013). However, small-scale local events remain under-explored in both theory and practice, with their community-building and place-making impacts understudied (Haanpaa, Garcia-Rosell, & Tuulentie, 2016).

Display politics, a perspective from cultural studies, argues that displays are inherently non-neutral and carry political implications. Exhibitions combine poetics and politics (Chang, 2014) and can be analyzed through two dimensions: display approaches and embedded meanings (Li & Wu, 2016). Display politics operates as a two-way process: organizers encode purposeful messages into public displays, while audiences actively decode the information (Dicks, 2004). Event-led regeneration involves issues of display and power, and display politics provides a new perspective to analyze politics implications as a soft platform of public display.

The Shenzhen-Hong Kong Bi-City Biennale of Urbanism/Architecture (UABB) is a biennial event co-organized by Shenzhen and Hong Kong. As the only global biennale focused on cities and urbanization, UABB addresses pressing urban issues by expanding architectural discourse to the urban scale, reflecting Shenzhen's rapid urbanization. The 7th and 9th UABB exhibitions were held in Nantou, Shenzhen, an urban village with historical significance. Using UABB as a case study, this paper explores three questions: (1) How did the exhibition narrate city regeneration? (2) What politics were displayed by different stakeholders? (3) How did villagers interpret the event? Data were collected using qualitative methods, including

material collection, participatory observation, and semi-structured interviews. Thematic analysis was conducted using NVivo Plus 11. The findings are as follows.

The UABB conveyed purposeful encoded information through its display—cities grow in difference and urban regeneration encourages public participation. It served as a platform for stakeholders such as curatorial teams, governments, and real estate enterprises to engage in urban regeneration. While the exhibition narratives ostensibly encouraged villager participation, they overlooked that urban villagers prioritize their daily realities over abstract concepts of urban regeneration. As a result, villagers remain largely excluded from the spatial renewal processes. This unequal relationship creates a misalignment between grassroots needs and elite perspectives, effectively representing an invasion into villagers' lived spaces. Compared to long-term and multi-involved urban regeneration approaches, local events like UABB only served as a tool. Although exhibitions can provide new perspectives and pave the way for subsequent practices, they have not yet become strategies to address the core issues of urban regeneration under the domestic context.

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REVISION AND VERIFICATION OF THE SCALE: MEASURING THE MOTIVATION OF CHINESE EVENT VOLUNTEERS

Veronica Lam, Macao University of Tourism, Macao SAR, China

Junying Tan, Macao University of Tourism, Macao SAR, China

Volunteers operate across various social domains, and volunteer services serve as a crucial auxiliary component in events. Particularly in large-scale events, volunteer participation and services have become an integral element for the successful execution of different events. Research indicates that high-level volunteer motivation can facilitate shifts in service attitudes through enhanced satisfaction levels, with volunteer motivation demonstrating a positive and significant impact on individuals' willingness to serve (Vansickle, J. L., 2015). Therefore, the development and validation of a motivation scale for volunteers participating in event services will not only provide a more standardized and reliable measurement tool for assessing motivation, but also contribute to the enhancement of service attitudes and commitment within volunteer groups. This dual effect ultimately leads to improved service quality and operational outcomes in volunteer initiatives.

In the measurement and scale development of event volunteers' motivation, there are four scales mainly discussed: VFI, SEVMS, VMS-ISE, R-PFVS. The earliest proposed instrument, the VFI, originated from psychological research frameworks, employing a functional perspective to analyze volunteer motivation. It identifies six motivational functions: Values, Understanding, Social, Career, Protective, and Enhancement (Clary et al., 1998). The SEVMS, secondly developed through empirical studies on two curling championships and a Scout Jamboree in Thunder Bay, Ontario, Canada, comprises four dimensions: Purposive, Solidary, External Traditions, and Commitments (Farrell et al., 1998; Johnston et al., 1999; Twynam et al., 2003). Thirdly, the VMS-ISE emerged from Bang and Chelladurai's (2003) investigation during the Korea World Cup, initially proposing two new dimensions, they are Patriotism and Love of sports, but only the latter was retained in the finale scale, they are Expression of Values, Interpersonal Contacts, Personal Growth, Career Orientation, Extrinsic Rewards, Community Involvement, and Love of Sports. The R-PFVS, introduced by Law (2011), incorporates seven dimensions: Understanding, Altruistic Concern, Prosocial Competence, Well-being, Future Plan, Socializing, and Civic Responsibility. This revision addressed the VFI's limitations in explaining Chinese youth volunteering behaviors through cultural adaptation using Chinese adolescent samples.

These four scales demonstrate substantial similarities in their core dimensions, though variations exist in how their sub components are operationally defined. Notably, the VFI, SEVMS, and VMS-ISE predominantly derive from Western contexts and sport mega-events, while the R-PFVS, though culturally adapted for Chinese populations, remains non-event-specific. Therewith, Shi constructed the Chinese version of the Sports Event Volunteer Motivation Scale (CSEVMS) based on the Western scale, it integrates six dimensions—Interpersonal Relationships, Value Expression, Career Development, Self-enhancement, Extrinsic Rewards, and Love of Sports. And as patriotism is an important part of China Socialist Core Values, in the Chinese context, volunteers receive patriotism education from childhood, so patriotism is embodied in the Value Expression (Shi et al., 2023). Besides, Vinnicombe and Wu's (2020) validation of VMS-ISE at China's MIDI Music Festival indicates that existing volunteer motivation scales, particularly those designed for sport events, may demonstrate broader applicability than commonly assumed. However, limitations persist, with material incentives emerging as critical factors sustaining participation among low-income young volunteers.

This paper will develop a revised motivation scale for Chinese event volunteers by synthesizing four established instruments (VFI, SEVMS, VMS-ISE, R-PFVS) and incorporating a welfare incentives dimension. Then through questionnaire-based data collection, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were systematically conducted to ensure the scale's demonstrated robust psychometric properties.

Finally, this is a preliminary session of a full scale study, and this paper aims to revise and construct a scale suitable for measuring the motivation of Chinese event volunteers, explore and verify the applicability of VFI, SEVMS and VMS-ISE scales for Chinese volunteers, and preliminarily explore whether the same scale is suitable for different types of events. For example, whether there are many different motivations for volunteers to participate in sporting events, music festivals or exhibitions.

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A STUDY ON THE INFLUENCE OF EXHIBITION PROJECTED IMAGE ON VISITORS' PARTICIPATION DECISIONS: A CASE STUDY OF 'THE TEMPLE OF EARTH AND I' BEIJING BOOK FAIR

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The quantity and quality of visitors directly affect the influence and level of the exhibition, and the audience's participation decision is very important for the exhibition. How the official projected image of the exhibition affects the audience's participation decision is an important issue worthy of in-depth study. This paper selects the Beijing Book Fair of "The Temple of Earth and I" Beijing Book Fair as a case study, and uses the grounded theory method to explore the mechanism of the projected image of the exhibition affecting the audience's decision-making to participate in the exhibition. The results show that the official projected image of the exhibition can affect the audience's participation decision from four dimensions: the exhibition dimension, the emotional dimension, the atmosphere dimension and the environment dimension, and the audience's participation decision will also be affected by the "spillover effect", "herd effect" and "reversal effect" of the perceived image of self-media users. Therefore, the transmission mechanism of "exhibition projected image→ audience perceived image→ audience participation decision" is extracted, and the theme analysis of the official projected image related texts and the audience's perceived image related texts is carried out, and the effect of the exhibition projected image on the audience's participation decision is analyzed. Based on the research conclusions, some suggestions are put forward from four aspects: content quality, marketing accuracy, marketing methods and intensity: first, pay attention to content quality and provide high-quality services, second, enrich marketing levels and multi-dimensional accurate projection, third, expand the scope of influence with the help of secondary marketing, and fourth, control the marketing scale and avoid excessive marketing. The research results can provide a basis and enlightenment for exhibition organizers to improve marketing efficiency, and can also enrich the theoretical research in the field of exhibitions.

HARBIN: THE BLOSSOMING OF A CITY IN ITS PRIME AND THE PRACTICE OF A FLOURISHING CITY

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When the Songhua River morning light sweeps St. Sophia Cathedral's golden dome and Central Avenue cobblestones reflect Ice and Snow World's glow, Harbin, blending Russian charm with Northeast China's boldness, writes a "flourishing city" story. It carries a century-old commercial port's glory, taking culture as soul, economy as backbone, and livelihood as lifeblood to build a landscape of coexisting prosperity and warmth, and integrated tradition and modernity.

Harbin's "prime" shines in cultural integration. Its Russian-style buildings mix with Northeast folk customs to form unique charm. The "China · Harbin International Ice and Snow Festival" is a world cultural IP. Ice and Snow World and Sun Island Snow Expo's giant snow sculptures promote ice and snow culture globally, helping Harbin break winter tourism limits and showcase cultural confidence.

Economic vitality and urban renewal support its prosperity. As Heilongjiang's capital, Harbin uses pilot free trade zone policies to upgrade equipment manufacturing, green food, and cultural tourism. Harbin Electric's clean energy equipment is exported, Wuchang rice is sold nationwide via e-commerce, and the Songhua River cultural and tourism complex creates over 100,000 jobs. Urban renewal, like old community renovations and historical block protection with new business formats, embodies the "people-oriented" principle.

Livelihood details hold prosperity's depth. From elderly exercising on the Songhua River Ecological Corridor to citizens reading in Qunli New District Library, and community service centers to school ice and snow sports, Harbin aims to let residents share prosperity. Winter free public ice rinks and discounted Songhua River cruise tickets turn prosperity into tangible happiness.

Looking ahead, with digital economy-ice and snow industry integration and historical culture-modern city coordination, Harbin will stay open and inclusive, making its "prime city" glory and "flourishing city" warmth last, as true prosperity is city-people co-growth.

THE IMPACT OF SOCIAL NETWORKS ON EXHIBITION ATTENDANCE DECISIONS IN URBAN YOUTH POPULATIONS

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As digital natives, urban youth have emerged as central nodes in information diffusion and a vital driving force for consumption upgrading, leveraging their high engagement and influential dissemination capabilities on social media platforms. However, the specific mechanisms through which social network interactions influence their exhibition participation decisions remain under-theorized, requiring systematic theoretical frameworks. This study employs a structural equation model (SEM) to investigate how social networks (encompassing network scale, heterogeneity, and tie strength) affect exhibition attendance decisions among urban youth, while revealing the chain mediation effects of cognitive value and image value. The empirical findings demonstrate that: (1) Social network scale and tie strength exhibit significant positive predictive effects on attendance decisions, whereas network heterogeneity shows no direct significant impact; (2) Cognitive value and image value partially mediate the influence of network scale and tie strength, while fully mediating the transmission mechanism of network heterogeneity. By constructing a theoretical model of "social network - value perception - behavioral decision", this research provides actionable insights for exhibition organizers to implement precision community marketing and optimize information dissemination strategies, while contributing novel theoretical perspectives to consumer behavior research in the digital economy era.

AN EXAMINATION OF PRIDE EVENT PORTFOLIOS

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Pride festivals and events are created and attended by members of the lesbian, gay, bisexual, transgender, plus (LGBTQ+) and ally communities as spaces for self-expression (Kaygalak-Celbi et al., 2020). While most attendees often participate in parades or festival events as part of the Pride ecosystem, recent years have seen a proliferation of Pride-related events and gatherings. These include fundraisers, alternative festivals, marches, speeches, demonstrations, sporting events, bar/club events, retail events, and private events, occurring over various times and locations. This research aims to examine how Pride events in a destination leverage event portfolios to enhance its destination image (Ram et al., 2019), increase inclusivity for a diverse LGBTQ+ community, and boost the economic profitability of LGBTQ+ businesses. This study contributes to the growing body of knowledge on using events to promote social justice in a heteronormative society.

This research is guided by event leverage portfolio theory, which highlights the strategic use of events to optimize benefits (Chalip, 2004). Over the past two decades, research has promoted diverse event portfolios in destinations to enhance both economic benefits and social advantages, such as creating a sense of community (O'Brien & Chalip, 2007).

LGBTQ+ Pride festivals are cultural events that celebrate LGBTQ+ identity and advocate for social and political activism, with origins rooted in the Stonewall Riots of 1969 (Hegarty & Rutherford, 2019). Research has noted the importance of Pride festivals in facilitating awareness and enhancing acceptance (Morris, 2023).

This study used a thematic data analysis protocol to examine how Denver, Colorado (USA) creates and leverages a Pride festival event portfolio. Data were collected from documents and information related to Pride events in Denver, user-generated social media content, and online media portfolios, focusing on various types of Pride-related events during the annual Pride month celebration in June 2024.

We examined 72 leveraged Pride events through a portfolio evaluation by Chutipongdech and Phengkona (2024), considering location, partnerships, frequency, programming, and user segments. The analysis indicates that the Denver Pride portfolio utilizes events among the following themes: destination attraction, user engagement, edutainment, and social justice. Based on this examination, we developed a substantive theory (Corbin & Strauss, 1990) related to Pride events in a portfolio.

We provide tactics and implications for Pride festival organizers, destinations, entrepreneurs, and policymakers. This study makes an active academic contribution to the events portfolio domain (Ziaks, 201) and the minority festival research domain.

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THE FUTURE OF EVENT MANAGEMENT IS EXPERIENCE MANAGEMENT: CREATING A NEW COURSE FOR UNDERGRADUATE STUDENTS

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Experience consists of the cognitive, affective, sensory, and conative responses evoked from a situational environment (Godovykh & Tasci, 2020). Experience management (EXM) sits at the intersection of event management, hospitality management, and other fields, such as psychology and design thinking, to influence and change behavior in an event. To date, few event management programs offer coursework in EXM, which is surprising since EXM will be the next evolution of event management. Thus, the purpose of this case study is to examine the creation of an undergraduate course in EXM.

This case study is unique in that it is one of the first studies to examine the evolution of event management classes to EXM. This study will provide implications and strategies for higher education professionals on how to create a course in EXM to meet the needs of the industry. We also provide suggestions on how the EXM field can collaborate with undergraduate programs. EXM has drawn interest from scholars and practitioners for the past several decades, drawing inspiration from Pine and Gilmore (1999) seminal work in the experience economy, which posits experiences are a distinct and unique economic era. This case study draws on the theoretical frameworks of EXM and customer experience. Customer experience can be defined as examining the user preferences, emotions, and experiences of customers. In the past decade, practitioners have utilized customer experience measurement tools such as empathy maps, design thinking, and customer journeys (Tueanrat et al., 2021) to impact customer retention. Whereas traditional event studies focus on operations aspects, EXM draws upon fields of psychology, design thinking, and other fields to influence behavior (Godovykh & Tasci, 2020).

This study employs a case study approach to discuss the creation of an EXM course during 2024. Data from this study came from the course syllabus, class objectives, course activities, readings, and evaluation methods to gauge the effectiveness of the course. Additionally, I kept a course journal before, during, and after the course to highlight my thoughts as the instructor. Findings for this case study are organized by the 8 modules presented in this course: understanding experiences, experience types/design, servicescape, tools, storytelling, technology/AI, changing behavior, and making experiences more accessible. For example, in the servicescape module, students read seminal work by Bitner (1992), and I provided a mini-lecture on servicescape at a local coffeeshop. This study provides rich, descriptive detail and will serve as a model for educators seeking to create a course in EXM and will guide educators with information and activities pertaining to the creation of the course.

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INNOVATIVE ENERGY THROUGH NETWORKS: A POLICY-NETWORK CATALYSIS PERSPECTIVE ON MULTI-ACTOR COLLABORATIVE PATHWAYS IN GUANGDONG'S "FIRST FIELD" AGRITOURISM

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This paper takes the Guangdong First Field Agricultural Tourism Project as a case study, based on actor-network theory and the concept of 'policy-network catalysis,' aiming to systematically analyse the multi-faceted collaborative mechanisms driving the innovative development of China's agricultural tourism industry. It seeks to provide theoretical and practical references for understanding and optimising the transformation and upgrading pathways of China's agricultural tourism sector.

In terms of research background, agritourism has become a key driver for rural transformation globally. However, existing international research lacks micro-level mechanism analysis based on actor networks, particularly neglecting the systemic pathways driven by innovation and multi-stakeholder collaboration. China's agricultural tourism has achieved certain results under policy promotion, yet existing research primarily emphasises top-down driving forces, neglecting the agency of local actors and network collaboration spaces. It also lacks in-depth analysis of the interactive relationships among diverse stakeholders. Under the backdrop of regional integration, the dual-track interactive pathways between institutional promotion and market mechanisms have not undergone systematic examination. As a representative case of agricultural tourism integration in the Guangdong-Hong Kong-Macao Greater Bay Area, 'Guangdong First Field' possesses policy support, infrastructure, and regional collaborative advantages, but also faces issues such as insufficient local actor agency and unstable collaborative mechanisms. Based on this, this paper establishes three research objectives: to reveal how agricultural tourism policies can catalyse resource integration and cross-border collaborative innovation by deeply embedding themselves in multi-actor networks; to elucidate the specific pathways through which regional integration provides institutional and market environment support for the 'policy-network catalysis' mechanism; and to explore the multi-dimensional innovation pathways and actual effects of the 'policy-network catalysis' mechanism in the Guangdong First Field case, while proposing corresponding objectives. - network catalytic mechanism; and to explore the multi-dimensional innovative pathways and actual outcomes of the 'policy-network catalytic' mechanism in the Guangdong First Farm case. Corresponding research questions have been proposed around these objectives.

In terms of research methodology, this study adopts a constructivist perspective, combining three complementary methods: qualitative content analysis, semi-structured interviews, and non-participatory observation. Twenty key participants closely associated with the 'Guangdong First Field' project were selected for interviews, encompassing local government officials, agricultural enterprise representatives, homestay and catering operators, local villagers, tourists, and other stakeholders. Data collection focused on policy documents, official records, news reports, and other materials from January 2023 to May 2025, and non-participatory observation was used to record the actual behaviours and interactions of various actors. Data analysis was conducted using actor-network theory as a framework, examining three aspects: policy mobilisation and node functions, collaborative mechanisms under regional integration, and diffusion pathways for innovation and brand spillovers. A dual strategy of triangulation and member checking was employed to ensure the robustness of research conclusions.

The research findings are primarily reflected in three areas. First, in the collaborative innovation pathways of diverse actors, the primary mechanism is the innovative structure of interlinked entities. Multi-departmental coordination meetings and platform-based resource allocation break traditional management frameworks, facilitating the implementation of policies at the grassroots level. The mechanism for the integrated coordination of diverse resources promotes the dynamic integration of elements and complementary connections of capabilities, maximizing the effects of collaborative innovation. The deep incubation of innovative models injects sustained momentum, driving the development of agricultural tourism towards a comprehensive, innovation-driven model. Second, in the process of regional integration, optimism foundational inter connectivity conditions provide a prerequisite for project development, while policy guidance support systems offer institutional safeguards. Innovative breakthroughs and sustainable evolution enable cross-regional collaboration and stimulate endogenous momentum, with all three elements collectively providing multi-layered environmental support for the 'policy-network catalysis' mechanism. Thirdly, from the perspective of high-quality development across the entire value chain, tourists and activities activate networks and integrate resources, economic revenue growth validates synergistic effects, increased agricultural production reflects collaborative innovation, smart agriculture facilitates technological diffusion and management upgrades, expanded planting scales demonstrate the evolution of collaborative and integration mechanisms, and enhanced brand and influence signify the expansion of collaborative innovation to external value creation. These six themes correspond to the specific pathways for collaborative innovation among diverse actors under the "policy - Network Catalysis" mechanism.

The research discussion highlights three core mechanisms driving the innovative development of agricultural tourism: collaborative innovation pathways involving diverse stakeholders break down policy silos and address associated drawbacks; a multi-dimensional environmental support mechanism under regional integration is the key to implementing 'policy-network catalysis'; and a holistic, end-to-end perspective enables high-quality collaborative growth. In summary, collaborative innovation among diverse stakeholders is the core driving force behind the transformation of regional agricultural tourism, while the environmental support provided by regional integration serves as the practical foundation for such innovation. Guangdong's First Field demonstrates the achievements of multi-level, multi-path collaborative innovation.

The significance and innovation of this study lie in the following aspects: theoretically, it breaks through the limitations of traditional analysis by introducing actor-network theory, providing an interdisciplinary analytical framework, and originally proposing the concept of 'policy-network catalysis'; practically, it provides a case study for agricultural tourism innovation, with the innovative points being the proposal and validation of relevant theoretical models, the construction of mechanism diagrams, and the adoption of diverse research methods. However, the study also has limitations, including limited representatives of the case, insufficient data collection, and inadequate exploration of conflicts of interest and power negotiations. Future research should expand the scope of cases, employ more refined analytical methods, and focus on the deep-seated relationships between emerging variables and collaborative innovation in agricultural tourism.

MAKING WAVES IN EVENTS: A DUODECENNIAL REFLECTION

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While laymen see academic conferences as travel opportunities for scholars, they actually serve primarily two important purposes. Firstly, it is a platform for advancing the field of study through a variety of activities such as dissemination of latest research findings, sharing ideas with peers, looking for collaborators, establishing partnerships, and so on. Secondly, it is creating this platform that allows delegates to network and 'put a face to the name' to experienced professors, journal editors, authors of cited articles, early career researchers, publishers, etc. These intertwining reasons for participating in conferences are crucial to attract delegates as well as for authorities responsible for funding these events.

What started off as a series of online conferences between two institutions between 2009 and 2013 culminated to the first 'Making Waves' physical conference in Bournemouth, UK, in 2013. According to the abstract book, the reason for naming the conference Making Waves was "to harness this natural energy to harness this natural energy to create enthusiasm that will change the way we perform our work under the broad umbrella of events management". It continues, justifying the significance of academics and practitioners meeting together, "the world would be socially, culturally and economically poorer without events, and as academics and professionals, we are in the privileged position of questioning and critically reviewing the value and meaning of events to individuals and communities".

It is for this reason and vision that the consortium between Bournemouth University and Macao University of Tourism (nee Institute for Tourism Studies) grew into a truly international syndicate of scholars who restlessly organised conferences in Macao (China), Orlando (Florida, United States), Cape Town (South Africa), Warsaw (Poland) and now in Beijing (China). This presentation aims to reflect on the experience of 12 years of conference organisation around the world, across different cultures and at various global economic environments that influenced the support for funding, attendance, and even organising the conferences.

Through the sharing of the experience of organising six conferences and host universities, a myriad of organising committee members and countless colleagues and students around the world, this presentation highlights the lessons learnt and looks into the future, navigating the trials and tribulations in terms of political, economic, social and environmental as well as technical challenges yet meeting the expectations from the future.

BEYOND THE DYAD: MAPPING MULTI-STAKEHOLDER VALUE CO-CREATION WITHIN THE TRADE SHOW ECOSYSTEM

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The trade show industry, a high-value service sector, brings considerable economic and social advantages to businesses and host cities (Lau, 2020). However, the industry confronts significant challenges stemming from heightened competition and evolving participant demands (Kirchgeorg et al., 2010; Lee, 2019). Addressing these pressures necessitates the enhancement of service and product offerings; it requires the collaborative efforts of all stakeholders to create a value-driven ecosystem that ensures mutual benefits. To this end, Service-Dominant Logic (SDL) and the concept of value co-creation (VCC) offer a robust theoretical foundation, positing that value is not unilaterally created but emerges from collaborative interactions among all involved actors (Vargo & Lusch, 2017). The service ecosystem perspective, which extends from SDL, shifts the analytical focus from singular, dyadic interactions to the broader, complex networks of resource exchange. This holistic approach provides a more comprehensive understanding of how value is co-created, thereby offering a critical framework for the trade show industry to innovate and thrive amidst contemporary challenges.

Despite its relevance, empirical research on VCC in the trade show context from a service ecosystem perspective remains limited. Existing studies have primarily focused on dyadic interactions between organizers and show participants, paying little attention to secondary actors such as exhibition venues and industry associations (Kirchgeorg et al., 2005). This research gap calls for a deeper investigation into how diverse stakeholders co-create value beyond simple dyadic exchanges in a trade show setting (Frow & Payne, 2018; Lee, 2019).

To address this gap, this study explores VCC practices among multiple stakeholders in trade shows from a service ecosystem perspective. Given the exploratory nature of the research, a qualitative approach was employed. This involved conducting in-depth, semi-structured interviews with 21 industry stakeholders in Hong Kong and Mainland China, including exhibitors, organizers, venue operators, industry association representatives, and Destination Marketing Organization officials. All interviews were audio-recorded with consent and subsequently transcribed verbatim for thematic content analysis using NVivo 12.

The analysis identified three primary VCC practices in trade shows: exchange, co-production, and co-promotion. The findings further suggest that the three practices are interrelated and often occur concurrently rather than sequentially. While all three practices are observed across the ecosystem's levels, their prevalence varies: exchange is common at all levels, whereas co-promotion and co-production are more concentrated at the micro and meso levels.

Theoretically, this study contributes to the literature on VCC and trade shows by extending understanding beyond dyadic interactions and highlighting the interdependence of co-creation practices. Practically, the findings provide valuable implications for industry professionals aiming to enhance collaborative service design.

SPEAK TO BEHAVE: THE IMPACT OF EVENT BRAND STORYTELLING ON EMPLOYEE BRAND ENGAGEMENT, BRAND BELIEF, AND BRAND AWARENESS

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In the process of event brand internalization, managers strive to promote employees to enhance brand engagement to create a meaningful event brand image presented to consumers. Meanwhile, the construction of brand stories needs to take into account different audiences as the brand community (including potential employees, candidates, etc.). Employees have become the key element in fulfilling the brand promise to exhibit event image. When employees fulfill the brand promise, brand stories can establish a deeper emotional connection with employees through brand associations, such as enhancing a sense of community, reducing psychological distance and power distance to leaders, and thus improving employees' brand-consistent behaviors. Although traditional brand internalization or employer branding research mentions that storytelling can increase brand understanding, it does not clarify how and when the strategy is effective in the event and tourism areas.

Based on the social identity theory and cognitive dissonance, this study proposes the following hypotheses: First, brand awareness and brand belief directly impact employees' word of mouth. When employees talk about their brand, the interaction evolves into a narrative or dialogue of brand stories. Shifting to story formation, word-of-mouth as a part of brand storytelling persuades and improves behavior engagement and brand awareness. Thus, word-of-mouth shapes brand storytelling and directly drives brand engagement. Second, brand commitment accuracy, as a moderator variable, evokes employees' imagination from brand storytelling to brand engagement. That brand-stimuli imagination is based on an individual existing image or experience from the brand-related information. The memorable experience is imagined in the new temporal-spatial scenario to refresh the understanding of the brand from past to present. It makes employees feel connected with the brand based on their cognitive imagination with time continuity. The familiarity with the brand will decrease employees' psychological distance, and willingness to participate in as a part of the brand. Thus, it is assumed that brand storytelling directly impacts brand awareness and brand engagement. Thirdly, brand engagement is also based on the extent of brand awareness, namely role relevance, brand knowledge, perceived importance, and perceived support. In different temporal-spatial scales, employees may have various senses of the brand, such as working from home during the pandemic or working in the office compared between pre-pandemic and post-pandemic. To do so, the brand belief will be reinforced by engagement in line with their identity.

This study provides theoretical implications. For instance, the cognitive dissonance theory is based on behavior and belief inconsistency. That is, individuals tend to adjust their beliefs or behavior to avoid cognitive dissonance situations. This study added social identity theory, as the conceptual framework, to reinforce and shift brand belief from the identity-aligned engagement. The practical implications suggest that work-of-mouth related to the brand can develop a brand story. Brand storytelling can be a powerful tool to communicate brand information and improve engagement and brand awareness, when in a certain of brand commitment accuracy.

Abstracts of full papers submitted



RIDING THE WAVES OF TRADITION: HOW A MID-SIZED ENTERPRISE NAVIGATES SUCCESS THROUGH MACAU'S DRAGON BOAT RACES

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Recognized as an UNESCO Intangible Cultural Heritage, dragon boat racing has a long-standing history in Macau. This cultural event has successfully metamorphosed into an international tourism product in Macau, combining both traditional symbolism of Tuen Ng Festival or Dragon Boat Festival with the dynamism of modern sporting competition. As a powerful marketing and promotional tool, this event effectively showcases and positions Macau to both domestic and international travelers, contributing significantly to the city's tourism-driven economy and unique cultural heritage.

Research on festivals mainly focused on visitor or participant perspectives and behaviors in general. The internal dynamics driving enterprises' participation in cultural and sporting events is less understood. Small and medium-sized enterprises (SMEs) are the backbone of Macau's economy and cultural identity, making up over 90% of the city's enterprises. Within this broad category of SMEs, mid-sized enterprises stand out as a unique group. They strike a balance between the agility of microenterprises and operational capacity of larger corporations such as the six concessionaires in Macau. Yet, constrained by limited resources, they often find themselves marginalized from certain government aid initiatives, which are predominantly tailored towards smaller businesses. Furthermore, despite the importance of SMEs, specifically, mid-sized enterprises remain under-researched, particularly in the context of cultural events.

Consequently, this study focuses on a mid-sized company's participation in Macau's dragon boat races, which is a vibrant cultural event that blends both sporting competition with deep traditional significance and meaning. Through the usage of a qualitative case study, this research seeks to investigate the motivations, perceived benefits and challenges faced by the mid-sized company through the eyes of management level, mid-level and frontline staff. More specifically, it aims to address the gap by examining a mid-sized company's involvement in Macau's dragon boat races in detail, shedding light on a theoretically underexplored subgroup within the SME ecosystem.

URBAN RESPONSES TO MEGA-EVENTS: INNOVATIVE APPROACHES AND SUSTAINABLE CONCEPTS FOR SPECIALIZED EXPO 2027 BELGRADE

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Mega-events serve as powerful catalysts for urban development, offering opportunities to enhance global visibility and stimulate economic and infrastructural growth in host cities. However, their long-term success depends on strategic planning to prevent underutilized post-event infrastructure and environmental degradation. In 2027, the Specialized EXPO will be hosted in Belgrade. The study contributes to the discourse on architecture's role in sustainable urban development by integrating forward-thinking design methodologies. Also, it examines the planning and design strategies for EXPO 2027 in Belgrade, emphasizing the creation of sustainable, adaptable urban spaces that integrate seamlessly into the city's fabric and continue to serve its residents beyond the event's completion.

During the 20th century, mega-events evolved into tools for promoting national identity and global branding, emphasizing infrastructural changes and the regeneration of urban spaces (Evans, 2019). Aligned with this view, reflecting on sustainable urban phenomena holds great significance. The goal is to avoid scenarios where event spaces become neglected, focusing on their evolution into vibrant and enduring assets that benefit the city and its residents. In their research, Irlando et al. (2015) argue that in Milan's case, much of the infrastructure remained underutilized after the Expo, raising questions about the need for better planning. These findings inspire the professional and academic community to consider concepts that could prevent such scenarios.

More particularly, the paper examines the concept of EXPO 2027 in Belgrade, exploring how a task was developed to produce an alternative solution for the Specialized EXPO Belgrade 2027 exhibition as the final product of the student's work within the course for the fourth year of integrated academic studies at the Faculty of Architecture, University of Belgrade in Serbia, in the academic year 2023-24. The students' projects were designed to foster awareness and encourage their contribution through innovative solutions. As a result of their research, Vij et al. (2019) emphasize the importance of participation by various social groups and their contributions in the form of ideas and needs. Based on these recommendations, derived from research conducted before the Dubai Expo, students are encouraged to engage in educational work with professors and collaborators.

The methodological framework comprises two key phases. The first phase relies on individual visions of the site and critical analysis of secondary sources, accumulating contextual knowledge from relevant examples in practice to inform creative design solutions. The second phase adopts the improved RIBA methodology, which encompasses four key steps: developing a vision and information base, analysis and evaluation, conceptual solution, and design development. Innovative methodological techniques like the superhero and lotus blossom methods were integrated to enrich the creative process and refine conceptual solutions. Student projects developed through this methodology could be categorized into four key themes: innovative approaches using AI to redefine urban-architectural elements; sustainability and ecology, emphasizing healthy urban living; culture and architecture, preserving identity and heritage; mechanics and mechanization, exploring kinetic systems

and renewable energy. The study's key findings are from student projects exploring design solutions for EXPO 2027 in Belgrade. The projects revealed four thematic approaches: AI-driven urban-architectural innovation, ecological and sustainable urban living, cultural preservation and identity, and mechanized systems incorporating renewable energy. These themes demonstrate architecture's potential to address global challenges through environmental sustainability, technological advancement, and cultural representation.

MECHANISMS OF LIVE-STREAMING DISSEMINATION IN PERFORMANCE EVENT: AN AIDA PERSPECTIVE ON TOURISTS' TRAVEL BEHAVIOR

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Live-streaming technology has received a lot of attention in the study of event tourism. However, there remains a limited understanding of the mechanisms through which live-streaming dissemination influences tourists' travel behavior, particularly in the context of tourism performance. Additionally, existing research has yet to fully explore how experience quality of live-streaming shape tourists' travel behavior toward performance event tourism. To fill this gap, the study adopts the classic Attention-Interest-Desire-Action (AIDA) model theory to explain the decision-making process of viewer travel behavior in performance event live-streaming. It investigates the influence of event live-streaming experience quality, viewers' interest, travel desire, and actual behavior. To develop an AIDA conceptual model based on the tourism performance live-streaming scenario. This research conducted a questionnaire survey of Chinese tourists who watched live-streaming of tourism performances and generated travel behavior, and the data will be analyzed using structural equation modeling (SEM). This research aims to contribute to the sustainable development of tourism performances and contains two aspects: firstly, the study clarifies the role of live-streaming of tourism performances on viewer's interest and behavioral willingness to provide new theory for the study of tourism performances; secondly, the results of this research can help practitioners of tourism performances to promote tourism performance events more effectively and realize the effective conversion of tourists from watching to travelling.

UNDERSTANDING THE EFFECTIVENESS OF GAMIFICATION IN MACAO EVENTS

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Gamification, which involves integrating game-like elements into non-gaming contexts, is a strategy aimed at enhancing effectiveness, adaptability, and engagement. It attracted significant attention in various industries such as education, business, and healthcare. Despite its success in various industries, research on gamification's effectiveness in other areas remains limited. It deserves more attention as it enhances event attendees' engagement as in other fields. This explorative study aimed to reveal the motives of event planners adopting gamification in events, and the challenges of implementing gamification in Macau's events. In-depth interviews with event planners and event hosts in Macao were conducted. Thematic analysis was applied. Research results included two parts. The first part was about the current application of gamification in Macao events. Gamification is seen by interviewees as a versatile tool for creating unique events, serving as an attraction tactic, networking instrument, and promotional tool. Event planners prioritize effective gamification elements to capture attention but acknowledge that not all types of gamifications are suitable for every event. Interviewees observed higher engagement, longer retention time, enriched event content, more effective communication and behavioral changing capabilities. The second part was about the challenges of implementing gamification from the perspective of event hosts and organizers. Event hosts' understanding towards their target market and the gamification approach is a key factor as they may apply the inappropriate gamification elements. Meanwhile, the culture of slow adaptation of new technologies presents another challenge. The pricey gamification solution and short event preparation lead-time further limit the possibility of producing creative and novel gamification components. These findings were further discussed and presented relevant implications.

TEAMING UP WITH AI: ENHANCING EVENT MANAGEMENT STUDENTS' AI LITERACY THROUGH SYNERGISTIC PARTNERSHIP

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Generative Artificial Intelligence (GenAI) is rapidly transforming the convention and exhibition industry, offering new opportunities and challenges for event professionals. While GenAI is smart, its tools often produce inaccurate or misleading responses, known as AI hallucinations, posing risks that may jeopardize event quality. Therefore, it is crucial for event management students to learn how to manipulate GenAI-based tools for future events. This study aims to investigate how to enhance AI literacy among event management students through an experiential learning approach. Guided by Kolb's Experiential Learning model, twenty-four Tourism Event Management undergraduate students collaborated in small groups to build GenAI-based chatbots and explored hallucination related issues in an event management context. Focus group discussions were conducted to understand their overall learning experiences and how experiential learning in GenAI technology can increase students' awareness towards AI literacy and AI hallucinations. The findings of the study provide both theoretical and practical implications in event education.

EXPLORATION INTO THE INTEGRATION OF DIGITAL AND REAL INDUSTRIES IN AGRICULTURAL EXHIBITIONS IN CHINA TO PROMOTE RURAL REVITALIZATION AND DEVELOPMENT

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Agricultural exhibitions are a product of the combination of exhibition economy and modern agriculture. With the new trend of digital economy, digital agricultural exhibitions have become an important direction for the development of agricultural exhibitions, playing an important role in driving regional economic development and promoting rural revitalization. Based on this, research and analysis on the integration of digital and real agricultural exhibitions to promote rural revitalization development are of great significance for comprehensively promoting rural revitalization. This article uses literature research method and data analysis to study the promotion of rural revitalization and development through the integration of agricultural exhibition data and reality. Through the combination of digital exhibitions and agricultural exhibitions, China's agricultural exhibitions have recovered rapidly after the epidemic. However, the integration of digital and practical development of agricultural exhibitions still faces challenges such as insufficient brand development, technological innovation capabilities, and talent cultivation reserves. We should accelerate the construction of an integrated platform for agricultural exhibitions, promote the integration of agricultural exhibitions and live streaming e-commerce, and play a positive role in promoting the implementation of the rural revitalization strategy.

NAVIGATING "NEIJUAN": WHY MAINLAND CHINESE EVENT MANAGEMENT STUDENTS SEEK MASTER'S DEGREES IN MACAU

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Through interviews with 15 master's degree students from Mainland China studying event management at a university in Macau, it was found through analyses that the reasons why university students from Mainland China majoring in event management chose to study a master's degree in Macau under the "Neijuan" social environment can be summarized as follows: fierce competition; advantages of higher education; devaluation of degrees; exam avoidance; emotional anxiety; developmental bottlenecks. The surge in the number of students studying abroad for event management due to "Neijuan" needs to be addressed by stakeholders such as individual students, the education industry and the government.

DIGITAL MARKETING TACTICS AND PUBLIC PARTICIPATION INTENTION IN EXHIBITION: EMPIRICAL RESEARCHES FROM THE GREATER BAY AREA

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This study explores the impact of digital marketing tactics on exhibition participation intention within the MICE industry, focusing on differences between professional and non-professional public groups. Drawing on exhibition practices in the Guangdong-Hong Kong-Macao Greater Bay Area, data were collected through a matched-sample online survey (n=537) and analyzed using SPSS and AMOS. Results show that digital marketing significantly enhances participation intention across both groups. For a professional public, the effect is fully mediated by participation motivation, with stronger effects observed in trade shows than in public shows. In contrast, for non-professionals, digital marketing influences participation intention both directly and indirectly through brand image enhancement. Moreover, susceptibility to marketing information moderates this effect - higher susceptibility strengthens the influence of digital marketing tactics. These findings contribute to the MICE marketing literature by identifying differentiated mechanisms through which digital marketing operates, offering empirical support for optimizing audience-specific strategies in dynamic regional contexts.

THE SOCIAL PRESENCE OF ARTIFICIAL INTELLIGENCE IN THE MICE INDUSTRY: CONCEPTUALIZATION, SCALE DEVELOPMENT, AND VALIDATION

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Artificial intelligence (AI) technology is revolutionizing the world at an unprecedented pace, with the MICE (Meetings, Incentives, Conferences, and Exhibitions) industry being no exception. The increasing integration of new technologies in this sector underscores the need to understand the formation of attitudes towards human-machine relationships, with social presence emerging as a key variable. However, the MICE industry currently lacks a clear conceptualization and effective measurement scales for social presence. The objective of this research is to address this gap by conceptualizing, developing, and investigating a social presence scale through a three-stage process involving 362 Chinese respondents and rigorous scale development procedures.

In the first stage, social presence was conceptualized based on previous research. The second stage focused on scale development, which included generating items through a literature review and validating content through expert evaluation. The third stage refined the social presence scale through exploratory factor analysis. The findings suggest that social presence constitutes a multidimensional construct, comprising four dimensions: AI Competence in MICE Industry, Human-like Interaction of AI, AI Emotional Influence, and AI Communication Accessibility. The constructed scale exhibited adequate levels of reliability and validity.

This study provides valuable guidance for conceptualization, creation, and implementation of artificial intelligence in the MICE industry to enhance participants' experiences with AI-based services. Subsequent research endeavors may examine the application of this scale in different cultural settings and conduct a more in-depth analysis of the influence of social presence on participant engagement and satisfaction levels.

NEGOTIATING INTANGIBLE HERITAGE: TRADITIONS, COMMUNITY, AND THE CATHOLIC PROCESSIONS IN MACAO

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This study, based on ethnographic observations and interviews focusing on two major Catholic events in Macao: The Procession of the Passion of Our Lord and Procession of the Dead Lord, aims to explore how intangible cultural heritage is transmitted within the local community.

These two processions reflect an ongoing cultural negotiation between the local community and tourists. On the micro level, it reveals a negotiation between tourist and religious ritual. Public religious events always demonstrate a balance between sacred and everyday life. The processions preserve deep-rooted Catholic traditions and support community needs, while contrasts with the rise of curious tourists who seek for authentic experiences, hence it is crucial for fostering cultural integration. On a broader level, in official narratives of Macao's cultural and tourism sector, these processions with other cultural events are listed as intangible cultural heritage, and as part of a series of major events to attract tourists. On this background, many cultural events in Macao are tending to combine ritual with performative elements to drive tourism development. When we look at the ritual itself, we can observe the uniqueness of Macau's culture that it embodies. This year, marking the 25th anniversary of Macao's return to China — offer a moment to reflect on what these rituals reveal about the city's evolving culture character.

ASSESSING SYNERGY BETWEEN RURAL TOURISM AND HUMAN SETTLEMENTS

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This study employs panel data from 2009 to 2018 in the Hang-Jia-Hu region (referring to Hangzhou, Jiaxing, and Huzhou in northern Zhejiang Province, China) to empirically analyze the current state of rural tourism industry development (RTID) and rural human settlements development (RHSD). By constructing a comprehensive evaluation index system, it measures the integrated degree of advancement, coupling and coordination level, synchronization, and obstacle degree of rural tourism and living environments in the area. The results reveal that the integrated advancement of rural tourism and human settlements has shown a gradual upward trend, although rural tourism has grown at a faster pace compared to improvements in human settlements. Additionally, the extent of coupling between RTID and RHSD in the Hang-Jia-Hu region has experienced an overall increase with fluctuations, consistently remaining within a coordinated coupling phase. Moreover, the level of coupled coordination between RTID and RHSD has steadily risen, marking a transition from low synergy to high synergy, showing that interaction and coordination have been gradually improving. Over the ten-year period examined, the rural tourism industry was identified as the key subsystem contributing significantly to the harmonious development of human settlements. This research underscores the progressively enhancing interaction and coordination between RTID and RHSD.

EXAMINING THE MENTAL IMPACTS OF ATTENDING MUSIC FESTIVALS,

A CHINESE GENERATION Z PERSPECTIVE

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Music festivals and music-themed events have gained immense popularity in various destinations, drawing crowds of locals and distant fans alike. While existing studies primarily focus on the social and economic impacts of these events on host cities and local communities, there is a notable lack of academic attention on the effects of festivals on attendees themselves. Specifically, the mental and psychological aspects of attending music festivals remain largely unexplored. This study aims to investigate the experiences of Chinese Generation Z attendees, examining their mental gains and impacts associated with these events.

The specific objectives of this study are to:

1. Identify and categorize the mental impacts of music festivals on attendees.
2. Compare and contrast these mental impacts across different age groups of attendees.

By surveying 304 Chinese Generation Z music festival attendees, this study categorized the mental and psychological effects of music festivals into three distinct categories. The results indicate that the 25-28 age cohort expressed lower levels of agreement regarding these impacts compared to younger attendees. This research enhances our understanding of the multifaceted functions and effects of music festivals. More importantly, it provides valuable insights into the social contributions of these events for their direct customers---Generation Z attendees. This knowledge can assist Destination Marketing Organizations (DMOs) and event organizers in planning and designing programs that are more socially responsive to the needs of this demographic.



THE WAVES OF TRADITION: HOW A MID-SIZED ENTERPRISE NAVIGATES SUCCESS THROUGH MACAU'S DRAGON BOAT RACES

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INTRODUCTION

Recognized as an UNESCO Intangible Cultural Heritage (UNESCO, 2009), dragon boat racing has a long-standing history in Macau. This cultural event has successfully metamorphosed into an international tourism product in Macau, combining both traditional symbolism of Tuen Ng Festival with the dynamism of modern sporting competition. Moreover, it is also one of the "tourism + sports" events that aligned with the Macau 2030 Blueprint (Macao Special Administrative Region, 2023). This cultural sports event is held annually, and not only is it a community related event where many local teams participate; but it is also being used to promote and advertise Macau to tourists overseas, allowing them to join as potential participants and spectators (McCartney & Osti, 2007).

The development of dragon boat races has come a long way. In 2005, they even made their debut as an official sporting event at the 4th East Asian Games, which took place in Macau (MEAGOC, 2005). This event blends both traditional symbolism of honoring the ancient poet Qu Yuan with modern sporting competitiveness (Macao Government Tourism Office, 2024). For instance, one of Macau's largest concessionaires, SJM Holdings, has fielded mixed-gender teams that won multiple championships, showcasing how large corporations leverage these sporting events for corporate social responsibility and community engagement (Macao International Dragon Boat Races, 2023). As a powerful marketing and promotional tool, this event effectively showcases Macau to both domestic and international travelers, contributing significantly to the city's tourism-driven economy and unique cultural heritage.

Prior research on festivals has often focused on visitor or participant perspectives and behaviors in general, rather than examining specific perspective and dynamics of mid-sized companies involved in these events. For instance, studies by Rossetti (2023) and Cheng et al. (2021) explore aspects such as participant observation, spatial and human perceived crowding on festival experiences. Less attention has been given to the internal dynamics of enterprises involved in such events, particularly those of mid-sized companies. Studies related to Dragon Boat Festival have previously examined participant motivations and involvement levels as predictors of loyalty (McCartney & Osti, 2007; Otoo et al., 2022) but have not sufficiently addressed the perspectives of business stakeholders in their participation.

Small and medium-sized enterprises (SMEs) are the backbone of Macau's economy and cultural identity, making up over 90% of the city's enterprises (Cheng et al., 2022). SMEs play an important role in sustaining the tourism economy, facilitating community engagement and helping to preserve local cultural traditions (Thomas et al., 2011). Within this broad category of SMEs, mid-sized enterprises stand out as a unique group. They strike a balance between the agility of microenterprises and operational capacity of larger corporations such as the six concessionaires in Macau (Storey, 1994). Yet, constrained by limited resources, they often find themselves marginalized from certain government aid initiatives, which are predominantly tailored towards smaller businesses (Beck et al., 2005).

Despite the importance of SMEs, mid-sized enterprises remain under-researched, particularly in the context of cultural events. Unlike larger firms driven primarily by profit, SMEs exhibit

more heterogeneity in purposes, shaped not only by commercial interests but also by personal, cultural and lifestyle motivations (Thomas et al., 2011). However, mid-sized enterprises have less dominance and visibility in major events such as Macau's dragon boat races. Their limited presence may be attributed to resource constraints or structural exclusion from support mechanisms. For instance, government aid initiatives such as the SME Aid Scheme only benefit firms employing fewer than 100 people (DSED, n.d.).

As a result, this study focuses on a mid-sized company's participation in Macau's dragon boat races, which is a vibrant cultural event that blends both sporting competition with deep traditional significance and meaning. Through the usage of a qualitative case study, this research seeks to investigate the motivations, perceived benefits and challenges faced by the mid-sized company through the eyes of management level, mid-level and frontline staff. More specifically, it aims to address the gap by examining a mid-sized company's involvement in Macau's dragon boat races in detail, shedding light on a theoretically underexplored subgroup within the SME ecosystem.

LITERATURE REVIEW

Much of the existing literature on business participation in community events has centered on event leverage, which refers to the strategic efforts organizations make to extend the benefits of event involvement, often with the emphasis on long-term economic or reputation gains (Chalip, 2006). While Chalip (2006) introduces the idea of social leverage, which focuses on community-building and relationships development, much of the applied research continues to prioritize commercial and economic outcomes. This has left less attention to the more relational, emotional and cultural dimensions of participation, especially for SMEs, whose engagement may be driven as much by internal values and local connections as by visibility or return on investment (Thomas et al., 2011).

Social capital reflects the interpersonal relationships that connect individuals, which is widely used to explain how networks, shared norms and trust emerge through social interactions (Misener & Mason, 2006; Putnam, 1995). These relationships are built on three core elements – trust, networks and reciprocity – which function as both cognitive and structural links within a community (Putnam, 2000). More specifically, social capital is often understood through three distinct forms that shape how individuals and groups connect: bonding capital, bridging capital and linking capital.

Events like Macau's dragon boat races offers a space where different forms of social capital can develop simultaneously. Within individual teams, regular training sessions and shared physical effort can help build bonding capital, where trust and a sense of unity are fostered among colleagues (Foxton & Jones, 2011). At the same time, events like this bring together teams from different companies and backgrounds, creating opportunities for bridging capital to form, where people meet, collaborate and build friendships beyond their usual social circles. On another level, there is also linking capital at play. By engaging with organizers, sponsors or other more formal authorities involved in the event, participants can establish connections with those in positions of influence or authority (Foxton & Jones, 2011; Onyx & Bullen, 2000), which may later translate into opportunities or support (Arcodia & Whitford, 2006; Zhou & Kaplanidou, 2018).

What these interactions reveal is that participation in cultural events is not just symbolic or ceremonial – in fact, it is relational. For mid-sized enterprises, where much of the community engagement relies on informal, trust-based networks (Thomas et al., 2011), the dragon boat races offer a practical setting to build and sustain these meaningful connections, both within the company and beyond.

While event leverage theory has traditionally framed business participation in events as a strategic means of gaining visibility or economic return (Chalip, 2006), this study adopts social capital theory (SCT) as its primary lens. As social capital offers a more human-centered framework, it allows us to explore the more relational and community-driven motivations that shape how mid-sized companies participate in Macau's dragon boat races. Rather than solely focusing on leverage or outcomes, the emphasis in this study is on the connections, trust and shared meaning that emerge through participation – for employees as individuals and for the organization as a collective social actor.

Building on the application of SCT to participatory events, the following research questions are proposed to deepen current understanding of SME participation in cultural sporting events:

RQ1: What motivates mid-sized companies to participate in dragon boat races in Macau?

RQ2: What benefits do mid-sized companies perceive from participation?

RQ3: What unique challenges do the employees and mid-sized company face when participating in dragon boat races?

RQ4: How does participation align with the mid-sized companies' broader business and community goals?

METHODOLOGY

This research employs a qualitative and constructivist design (Berger & Luckmann, 1991; Denzin & Lincoln, 2005) in exploring the perceptions, motivations, perceived benefits and challenges of employees from multiple levels in a mid-sized enterprise in the context of dragon boat races. The aim is not to generalize findings across different stakeholders but to focus on the specific experiences and perceptions of this company. According to Yin (2018), single-case studies are particularly effective for exploring context-specific phenomena, as they prioritize depth and richness of information over breadth.

Mid-sized companies operate with distinct resource limitation and strategic motivations that set them apart from larger corporations. Focusing on a single mid-sized enterprise, this study offers context-driven insights into the specific challenges, motivations and strategies shaping its participation in cultural events. As Flyvbjerg (2006) suggests, such case-based inquiry provides in-depth and actionable knowledge that broader generalizations often overlook – particularly in understanding why and how mid-sized enterprises engage in events like Macau's dragon boat races.

Respondents for this study were purposefully selected to include a variety of key contestants who are directly participating in the dragon boat race. In total, 10 participants were asked and consented to participate in the study. Participants include the General Manager of the company, mid-level managers and frontline staff from departments such as Guest Services, Human Resources and Food and Beverage. The nationalities of these participants include Chinese, Portuguese and Filipino. As direct contestants in the dragon boat races, they have intimate knowledge of the entire process from initial preparation stages to actual on-water competition.

A semi-structured interview guide was developed based on previous literature on participant experiences in sporting and community-based events (Getz, 2008; Zhou & Kaplanidou, 2018). The interview guide covered five broad categories: (1) motivations for participants; (2) perceived benefits (3) challenges at both individual and at organizational levels; (4) preparation-related including strategies, routines and behaviors; and (5) reflections on outcomes and future participation.

Using the Gioia et al. (2012) method within a thematic analysis, the data were analyzed through a structured and iterative process of data reduction, theme development and concept aggregation (Braun & Clarke, 2006). Interview transcripts were analyzed line by line to generate first-order codes, retaining participants' own words. These were then grouped into second-order themes based on shared meanings and theoretical relevance. Afterwards, broader aggregate dimensions were developed to capture deeper patterns in how the enterprise experienced and interpreted its involvement in dragon boat racing. Together, this approach allows for a grounded and analytically coherent account of the mid-sized enterprise's motivations, challenges and social outcomes through its participation in the races.

FINDINGS AND DISCUSSIONS

Leadership-Driven Motivation and Volunteerism

Participation in dragon boat racing at the mid-sized enterprise might have begun based on KPI initiative by top management. However, it has been shaped by a strong culture of volunteerism reinforced by visible, committed leadership. Respondents repeatedly emphasized that participation was never forced, but rather, it was inspired through modeling behaviors. Particularly, the General Manager served as a motivational catalyst, modeling commitment and reinforcing collective morale.

"I don't want people to feel like they're forced into this... I make sure I am there at almost every practice, training as hard, sometimes even harder than everybody else." (Respondent 1)

This type of leadership reflects a form of bonding social capital, where trust is cultivated not through formal authority but through shared sacrifice and peer modeling. Employees felt more compelled to contribute not out of obligation, but because leadership presence signaled that effort mattered. As respondent 2 commented, "The General Manager takes it very seriously and his enthusiasm really rubs off positively on the team... that underdog spirit drives us forward each year".

Leadership was also described as emotionally and practically invested. As one Director shared, "I know every paddler on our team. I see their effort and I paddle right beside them" (Respondent 10). Such proximity and embodied leadership created a sense of horizontal solidarity, minimizing organizational hierarchy.

In addition, the absence of coercion or financial incentive made the participation more meaningful for many, with respondents describing the environment as supportive and purpose driven. Respondent 10 reflected, "No one's doing it for money. We celebrate small wins". The volunteers were selected not for athletic ability but for attitude and willingness to grow, highlighting a values-based approach to recruitment. As the General Manager echoed this sentiment:

"It wasn't like I targeted athletes specifically. I was just looking for people who were open-minded enough and willing to commit to something new." (Respondent 1)

Emotional Fulfillment and Passion for Participation

Respective participants described their involvement in dragon boating as emotionally rewarding, offering both psychological satisfaction and a sense of meaning beyond workplace obligations. For many, participation was closely tied to enjoyment, personal pride and the pursuit of new challenges. Sense of passion was consistently cited as one of the core reasons for enduring the rigors of training. Rather than being driven by external incentives, respondents emphasized the internal motivation and fulfillment derived from the experience.

"I can just really enjoy being out there with everyone... something fun to do after work." (Respondent 4)

"I wanted to understand why people here love dragon boating so much... instead of just reading about it, I go to experience the deeper cultural meaning firsthand." (Respondent 3)

"Even if you're not naturally competitive... striving for a common goal, it just changes you." (Respondent 9)

These internal motivations align with cognitive dimensions of social capital, particularly shared values and mutual understanding. The pursuit of joy, pride and cultural identity strengthen emotional ties and shared meanings within the group, deepening individuals' sense of embeddedness (Onyx & Bullen, 2000).

Some respondents also described the training process as a form of emotional release. Dragon boating was seen more than a physical sports but also as a stress-relieving outlet after demanding and routinized workdays. As Respondent 4 puts it, "Now I row at the back and enjoy it more... it's become more of a stress reliever". Similarly, Respondent 6 reflected, "The team's unity and shared effort create a strong emotional bond".

Importantly, dragon boating was not driven by material reward. This absence of financial incentive did not diminish the commitment. Instead, it highlighted how this cultural activity fostered a sense of pride in participation and strengthened individual attachment to the team and its tradition.

"There is no big reward or money, but we still join every year. It's good exercise and something we love to do as a team." (Respondent 5)

"I jog every now and then, but it's nothing compared to dragon boat. When you're in the middle of a race, the adrenaline's pumping... it's like you're part of something bigger than yourself." (Respondent 8)

While motivation to participate began with leader influence and emotional fulfillment, it quickly evolved into a set of deeper organizational and interpersonal effects – particularly in how employees related and communicated with one another.

Workplace Cohesion and Belonging

Most respondents emphasized that participation helped foster belongingness and deepen interpersonal connections across different units of the mid-sized enterprise. While many participants initially joined with little social rapport across departments, the prolonged and intense physical training and team collaboration provided a platform to foster trust, inclusion and group identity. Several respondents also highlighted how being part of the team made them feel seen, supported and less isolated.

"I barely knew anyone before joining. But as a drummer, I had to observe everyone, and over time I felt more included and supported by my teammates." (Respondent 3)

"Through dragon boating, I got to know colleagues from other departments much better. It helped us become closer and improved communication when we needed each other's support at work." (Respondent 5)

"He's in HR, and I'm in operations. Before joining the team, we barely exchanged a word. But now? We're on the same wavelength." (Respondent 8)

The shared intensity of the sport – marked by training fatigue, rhythm synchronization and race-day adrenaline – acted as a social equalizer. Such physically immersive experiences forged relational bonds that extended beyond the workplace.

"We bonded through sweating, complaining together about soreness – it really breaks down barriers." (Respondent 4)

"When you communicate mostly through emails or occasional phone calls, relationships can feel distant. But training and racing together, it builds genuine connections and friendships." (Respondent 2)

Beyond the boundaries of the workplace, respondents further noted the spillover of social interactions into informal domains such as shared meals, outside events and mutual celebrations. For instance, respondent 3 explained that the company "organizes occasional team gatherings, like BBQ dinners, which boosts morale and camaraderie".

These cross-departmental friendships exemplify bridging social capital, fostering lateral networks that enhance collaboration, emotional safety and relational trust across otherwise disconnected units (Putnam, 2000). As respondent 1 noted, "the team spirit, the sense of belonging, and the collective goal are stronger incentives than financial rewards or external pressures... [and they] genuinely enjoy working together and feeling part of something bigger than [themselves]".

Others also echoed this sentiment by highlighting how the team's cohesion contrasted with the bureaucracy found in larger corporations. Respondent 9 explained, "In big companies, politics and bureaucracy get in the way. People are guarded, and it's hard to build trust. But we're like a family. No backstabbing or hidden agendas". What's emphasized here is the mutual respect and psychological safety enabled in the mid-sized enterprise, allowing the participants to view themselves as both employees and valued team members.

Internal Organizational Development

Dragon boating was described not only as a sport but also as an embodied, cross-departmental practice that sharpened communication and strengthened interpersonal trust within the SME. Despite limited funding and disparate job functions, the team members engaged a shared physical and emotional journey – forming deep connections outside the confines of hierarchical work roles. These shared experiences forged enhanced internal communication channels, allowing different departments to relate and collaborate more effectively with each other.

"Training together, racing together, it builds genuine connections and friendships." (Respondent 2)

"We encourage open communication... discuss issues as a team." (Respondent 6)

Over time, the physical rigor of training also instilled discipline and team accountability, particularly evident in teams with rotating membership and inconsistent schedules across various departments. Respondent 2 stated "discipline, mental and physical health and community engagement have all improved noticeably". Furthermore, as noted by respondent 7, "for mid-sized teams like ours, high turnover makes building chemistry challenging... but we compensate with determination". Still, participants described an evolving team culture centered on trust, respect and resilience. Across multiple interviews, respondents revealed that dragon boating facilitated a form of internal organizational development unattainable through conventional team-building workshops.

"Unlike casual team-building activities, training together for a competitive goal builds lasting camaraderie." (Respondent 7)

"It's not just about the boat; we've carried that teamwork into our regular jobs. We're more collaborative, more willing to help each other out." (Respondent 8)

From the perspective of SCT, these emerging team dynamics represent a shift from structural gaps to relational capital. Rather than relying on imposed coordination mechanisms, trust and cooperation within the team are organically reinforced through shared rituals and norms, improving internal cohesion without hierarchical intervention.

Social Integration and Community Visibility

Beyond internal bonding, dragon boat participation served as a platform for external connection, allowing employees to build relationships across companies and industries. Several respondents noted that through repeated training and shared event spaces annually, they began to form friendships with members of other companies. Respondent 2 explained, "I've met people from other companies and smaller associations training at the lake... we catch up socially, share meals, attend other sports events together".

For many respondents, the dragon boat races also served as a symbolically rich space for cultural integration. The rituals – marking boats with red dots, burning incense and herbs or offering roast pigs – were described not just as cultural performances but also as authentic opportunities to engage with local values and spiritual traditions.

"I'm from Sichuan, so this was all new to me... I was invited to a worship ceremony by someone from another team. It felt special even though I couldn't attend." (Respondent 3)

"[Dragon boat race] is a traditional Chinese activity... and seeing the team compete in media coverage inspires others. It's not about money – traditional activities like this are about personal growth and cultural connection." (Respondent 7)

In addition, the event also offered organizational visibility and reputational benefits for the mid-size enterprise. Respondents noted that the races were covered by local TV outlets, with participants proudly presenting the company in front of thousands. For SMEs with limited marketing budgets and community presence compared to big corporations such as the big concessionaries in Macau, the dragon boat setting provided valuable symbolic and relational visibility.

"Our participation gets covered on local TV channels and in internal newsletters, giving us strong visibility and positive brand presence." (Respondent 2)

What's more, this external integration sometimes also created tangible professional opportunities, though often in informal ways for the enterprise. For example, respondent 1 mentioned that they would invite other teams to their venue for discounts or partnerships. The possibilities of such low-cost collaborations are valuable for mid-sized firms, who may sometimes lack the formal marketing reach of major corporations. These relationships built on mutual enthusiasm rather than strategic planning, contribute to a hybrid form of social and professional capital that strengthen the mid-sized enterprise's embeddedness in the broader business and public community.

SME Strategic Positioning and Resilience

Participants emphasized the distinctive challenges and strengths that came with representing a mid-sized enterprise in dragon boat racing. Unlike big corporations – which benefit from more extensive budgets, stable teams and full-time training resources – this mid-sized enterprise operates on a constrained yet resilient strategy. Respondents pointed out staffing shortages, limited funding and scheduling conflicts as routine obstacles throughout the training and races. As Respondent 2 shared, "Sometimes we have to hire part-time staff to cover shifts... training starts at about 4 pm but operations go until 7 pm". This reveals the tension between operational demands and extracurricular engagement. Respondent 8 also further stated, "We rely on squeezing in runs or workouts on our own time."

In addition, the discontinuation of external subsidies was also cited as one of the major turning points in SME involvement. Previously, there was support from the Dragon Boat Association, which helped offset costs of equipment and training. As Respondent 1 explained, "There are fewer SMEs nowadays... the subsidy stopped a few years ago". Without this financial buffer, many SMEs either disbanded their teams or merged with other organizations. This reinforces the disparity between larger corporations and SMEs, requiring the latter to rely increasingly on internal passion, volunteerism and informal coordination to remain visible in the public sporting space.

"A former steersperson from our team joined another team last year due to sponsorship gaps. While large companies sustain teams long-term, mid-sized teams rely on passionate volunteers." (Respondent 7)

"We don't have corporate sponsors or flashy gear... I have dipped into my own pocket occasionally, but it's worth it." (Respondent 10)

Some respondents even purchased their own gloves, goggles and shoes, noting that the company can only provide uniform, paddles and such. Respondent 3 reflected on this trade-off with optimism though, "They didn't pay for the gloves, but at least I could choose my favorite color". These seemingly minor gestures reflect how employees helped to fill structural gaps through personal initiative.

Despite these constraints, participants also conveyed a strong sense of pragmatic adaptability. Instead of replicating the resource-rich models of larger competitors, the team focused on fundamentals, internal discipline and flexible coordination. Several respondents noted that team composition changed annually and that coordinating across departments, especially between front-line staff and office staff, was difficult. Still, the teams adapted with purpose.

"We pride ourselves on quick learning." (Respondent 7)

"Our biggest advantage is genuine enthusiasm and flexibility. Our team members genuinely want to participate, not because they are obligated but because they truly enjoy it." (Respondent 3)

From the SCT perspective, the team's adaptability under constraint highlights how relational ties, shared commitment and mutual trust serve as critical, non-material resources. These bonds form an informal infrastructure that offsets limited financial and institutional support. Ultimately, SME participation in dragon boating generates symbolic capital and fosters cross-organizational ties that build resilience beyond visibility alone.

"I think SMEs benefit uniquely by showing their community spirit and resilience. It demonstrates to employees and the community that we value team building, health and local traditions... For SMEs, that alone is highly valuable." (Respondent 2)

CONCLUSION

This study explored how a mid-sized enterprise in Macau participates in dragon boat races, offering a grounded perspective on the relational, emotional and cultural dimensions of business engagement in a community cultural event. Rather than just approaching participation as a branding opportunity or strategic leverage, the findings reflect that involvement was voluntary, values-driven and socially meaningful for the participants.

Through the lens of SCT, the study revealed how bonding, bridging and linking capital are actively cultivated through participation. Bonding capital was strengthened through shared training, emotional support and cross-departmental friendships. Bridging capital emerged in informal connections with other companies, cultural exchanges and interorganizational

collaborations. While linking capital was more limited due to institutional and resource barriers, employees and management found ways to build visibility and goodwill within the broader community through symbolic presence and mutual engagement.

Importantly, the findings revealed how dragon boat racing became more than a sport. It was described as a stress-relief outlet, a space for learning resilience and a rare opportunity for a mid-sized company to demonstrate internal solidarity and external identity. In a context where SMEs often lack the resources and recognition afforded to larger corporations, the races offered a platform for informal visibility, cultural inclusion and collective pride. The company's capacity to adapt, coordinate and sustain participation emphasize the importance of resilience and social commitment.

However, this study is not without limitations. First, it is based on a single-case qualitative study, which provides depth but limits the transferability of insights across other industries, cultures or enterprise scales. Furthermore, the study captures perspectives primarily from internal participants, with little data from event organizers, external stakeholders or government institutions – groups that may shape or constrain SME engagement in significant ways.

Despite these limitations, this study contributes to a growing recognition of non-commercial value that participatory events hold for mid-sized enterprises. The findings support that engagement is sustained not by mandates or material incentives, but from leadership modeling, emotional resonance and shared culture. Here, authenticity is not merely seen as an organizational value, but it emerged as a strategic asset that reinforce commitment and cohesion.

From the event organizer standpoint, reintroducing modest financial aid and public recognition of non-competitive teams – through media mentions or symbolic acknowledgements could be considered. These measures may help validate SME participation and encourage sustained engagement despite limited funding or absence of competitive success.

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URBAN RESPONSES TO MEGA-EVENTS: INNOVATIVE APPROACHES AND SUSTAINABLE CONCEPTS FOR SPECIALIZED EXPO 2027 BELGRADE

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INTRODUCTION

The pursuit of global relevance has become a defining feature of contemporary urban development. Both major metropolitan centers and smaller cities are increasingly striving to position themselves as strategic global nodes. By realizing their economic growth potential, they aim to attain the status of a global city, which brings with it connections to the centers of political and economic power, a focus on economic growth, the creation of a global image, and improved global connectivity among cities. Within this competitive landscape, mega-events have emerged as key instruments. One of the most significant forms of such events is the EXPO exhibition, led by the French Bureau International des Expositions. EXPOs have evolved from small-scale events to complex, multifaceted operations that require significant financial and sustained support from host communities to foster favourable perceptions of the event. Initially limited to a few permanent structures, post-World War II editions began to increase in scale and complexity. The 1990s faced with an intensification of commercialization, with cities increasingly turning to public-private partnerships and adopting neoliberal models of urban governance. In this context, the concept of legacy was formalized in the early 2000s, shifting from an incidental outcome to a planned and strategic component of the mega-event organization. In 2027, Belgrade will host the Specialized EXPO, presenting a vital opportunity to enhance the city's global visibility and stimulate economic and infrastructural growth.

Planning events (such as World Expos, Olympic Games, and major football tournaments) typically unfolds over a seven-year timeline, which includes the period from the selection of the host city to the realization of the event. This timeframe requires complex, multi-scalar coordination and early-stage planning, even before the official awarding of hosting rights. The planning of mega-events is influenced by multiple actors, including residents, authorities at various levels, the private sector, social groups, and international organizations. Lessons from EXPO 2020 in Dubai (Abdulla & Dutt, 2024) demonstrate the importance of strong institutional leadership and early stakeholder engagement (Al Hallaq et al., 2020). It is essential to increase community involvement. Residents who are actively involved in the event's development and execution might boost support from their peers and foster favourable opinions about it (Vibber & Lovari, 2022). It is crucial to encourage residents to be effectively engaged in the planning process, addressing concerns and fostering a sense of community ownership. Research by Al Hallaq et al. (2020), Mills & Rosentraub (2013), and Vij et al. (2019) highlights the significance of involving residents in decision-making to mitigate scepticism and address issues such as traffic congestion, housing prices, and overcrowding. By actively involving residents in the planning process, authorities can enhance transparency, build trust, and ultimately create more sustainable and inclusive urban environments. Due to the event's enormous capacities and the planned spatial interventions, in some cases, the public has also expressed doubt about whether the promised long-term benefits will materialize (Müller et al., 2023).

Since mega-events like EXPO significantly influence the shaping of event locations, they often require host cities to provide additional infrastructure to accommodate the influx of large crowds over a short timeframe. However, their long-term success depends on strategic planning and proper integration into the existing urban fabric. If the post-event infrastructure is not properly utilized and maintained, it risks becoming neglected, potentially leading to environmental degradation and exacerbating existing urban challenges. These risks highlight the need for proactive planning approaches that prioritize long-term usability and integration. It was precisely these problems that we aimed to further raise awareness of in our work with students by forming Innovative Approaches and Sustainable Concepts for Specialized EXPO 2027 Belgrade in order to emphasize the importance of strategic planning and reinforce the value of learning from the experiences of previous host cities regarding the potential risks of event organization. In this context, this paper examines strategies for planning mega-events to create flexible and sustainable spaces that remain functional and connected to the city after the event concludes. The goal is to avoid scenarios where event areas are left unused and instead support their transformation into vibrant and lasting spaces that benefit the city and its residents.

THEORETICAL FRAMEWORK & CONCEPTUALIZATION

Precautions and potential risks of event organizations

While mega-events hold transformative potential, they are also accompanied by substantial risks and challenges that require careful consideration. Many host cities invest substantial amounts of the national budget in event infrastructure, which, once the mega-event has concluded, ceases to have sufficient usage to justify its existence (Wilson, 2018). It is an unfortunate yet common outcome of mega-events, and in the literature, it is referred to as a white elephant or single-purpose infrastructure (Abdulla & Dutt, 2024). To mitigate this outcome, many planners consider the event's legacy. It is also possible that white elephants can create resentment amongst residents and stall further infrastructure projects needed by the community (Wilson, 2018). The large number of visitors dictates the spatial and infrastructural capacity that must meet the increased pressure on infrastructure (observed in the short term during the event). In the long term, planning a mega-event becomes part of the city's future development. Most new hosts lack the experience to mitigate the occurrence of negative impacts, and they are also observed to last longer than the positive ones. The negative impacts can be observed through the analysis of MES/Mega-event syndrome symptoms, a condition characterized by symptoms that catalyze negative impacts typically attributed to mega-events (Müller, 2015; Abdulla & Dutt, 2024). This syndrome includes seven key symptoms: overpromising benefits, overspending (cost related to the event), elite capture, event takeover, public risk-taking, extensive shortcut-taking, and rule-bending or breaking. Elite capture implies the participation paradox, which states that the event is promoted and advertised globally yet often leaves residents unable to attend due to targeted elite attendance. Spatial problems are reflected in litigation and the fact that new event infrastructure limits access to open public spaces. The most important aspect is the control of transparency in financial flows and adherence to planning and construction regulations, which may be bypassed, modified, or altered solely for the event purpose (Müller, 2015; Abdulla & Dutt, 2024). Taking all this into account, the effects of mega-events on host cities can vary, with long-term impacts influenced mainly by the hosts' pre-existing economic conditions (Clark et al., 2016; Nikolaeva et al., 2017). The prerequisites for MES to be less visible include a pre-existing tourism reputation, a strategic plan that utilizes the Expo as a catalyst for further tourism and infrastructure development, and the highly involved nature of the local government.

Smart Planning and Mega-Event Legacy

In recent years, criticism of mega-events has centered on environmental and social concerns, leading to dissatisfaction among citizens. To promote resident satisfaction, participants emphasized the importance of involving all stakeholders, particularly local communities, government agencies, and international organizations, in event planning to ensure its long-term success (Abdulla & Dutt, 2024). Citizens, particularly in smaller cities, often protest sudden rises in tourism because it threatens housing availability, public investment in local services, and quality of life. In a research study assessing residents' attitudes toward the economic, environmental, and social impacts through the example of Dubai Expo 2020, 27 statements were included in the questionnaire, with respondents indicating the percentage of agreement with each statement. The statements most widely agreed upon concern price increases, especially for "basic items" (83% agree) and "real estate (land prices, housing prices/rent)" (84%) (Vij, Upadhya, A. Vij, & Kumar, 2019). It is essential to note that mega-events also have a direct impact on marginalized groups. During the buildup of these events, urban and infrastructure projects can displace poorer or homeless populations (Clark et al., 2016; Hall & Hodges, 1996; Mills & Rosentraub, 2013; Wilson, 2018). Hall and Hodges (1996) describe this as the social hangover of mega-events, where residents' social priorities are often overlooked in favour of the event.

Through carefully designed planning and keeping in mind all the problems that can be strategically overcome or mitigated, mega-events can act as a catalyst for long-term change, allowing cities to "mask" strategic development projects as part of temporary festivities. This approach is increasingly referred to as a brilliant legacy, implying that what remains after the event is not merely a symbolic trace but functional and sustainable urban improvements. One of the most striking examples of strategically using a mega-event to implement delayed infrastructure is Seville, which, on the occasion of EXPO 1992, carried out a whole series of key projects for which it had previously lacked both budgetary and political capacity. Spain's first high-speed railway (AVE Madrid–Seville) was opened, the airport was renovated, bridges over the Guadalquivir were constructed, and the neglected island of La Cartuja was transformed into a new urban zone with technological, university, and cultural functions. Almost the entire structure built for the EXPO was later branded as its "legacy," although it was essentially an infrastructural development encouraged by international visibility. A similar model, though without official EXPO status, was implemented by Madrid. Madrid employed other manifestations, primarily international fairs and its bid for the 2012 Olympic Games, as legitimization for infrastructural investments that were urgently needed and later branded them as part of the city's modernization identity. In both cases, the international context enabled local authorities to undertake ambitious urban interventions under the umbrella of a "mega-event", thereby generating long-term benefits that far exceed the temporary nature of the events themselves.

The planned Specialized Exhibition, scheduled for 2027 in the suburban area of Belgrade, currently lacks a consistent and publicly available development plan. Available information about the intended content, infrastructure, and investment related to the event is fragmented, relying on various official and unofficial sources that only indirectly reference the project. The investment plan, titled "Leap into the Future – Serbia 2027," has a total estimated value of 14,588,172,255 RSD, of which 1,769,100,750 RSD is allocated to the development of infrastructure for the specialized exhibition. However, this investment plan has not been published in written form. It is instead presented solely in video format, which poses a challenge to researchers and professionals attempting to analyze and interpret the intended development.

Several planning phases have addressed the Surčin municipality and the area designated for the event. Due to the scattered nature of the available data, a comprehensive understanding of the future exhibition, both professional and academic, remains limited. In response to this deficiency, the design studio for fourth-year students at the Faculty of

Architecture, University of Belgrade, in the academic year 2023–2024, set out to develop speculative, innovative concepts that might provide hypothetical responses to EXPO 2027. This initiative also aimed to critically reflect on examples of good and poor practices from previous European events. For this reason, emphasis was placed on encouraging student creativity and the fresh perspectives of young professionals. The studio setting provided the opportunity to work through the semester on a comprehensive hypothetical proposal, with particular attention to the post-event transformation of the EXPO site.

METHODOLOGY

The research was conducted within the framework of a design studio course for fourth-year students enrolled in the integrated academic program at the Faculty of Architecture, University of Belgrade, during the 2023–2024 academic year. The development of student projects was guided by a structured methodological approach divided into two main phases. In the initial stage, the emphasis was placed on developing personal concepts for spatial designs and carefully reviewing existing research materials, enabling students to build contextual knowledge through the analysis of relevant case studies and applied practices. The second phase was based on the RIBA methodological framework, structured around four principal stages: establishing a vision and knowledge base, conducting analysis and evaluation, formulating a conceptual design, and developing the final proposal. To further stimulate the creative process and support the generation of original design concepts, supplementary techniques, such as the superhero method and lotus blossom strategy, were applied as tools for expanding ideation and deepening thematic interpretation.

Following the completion of the design process, the student submissions underwent a thorough assessment. That is considered both in terms of conceptual strength and contextual relevance. Based on this analysis, the projects were subsequently grouped into four thematic categories that emerged inductively from the content of the work: (1) artificial intelligence and the redefinition of urban form, (2) sustainability and ecological urbanism, (3) culture and heritage preservation, and (4) mechanics and mechanisation. This classification enabled a clearer understanding of the dominant narratives within the studio and provided a structured basis for the comparative interpretation of student-driven visions for the EXPO 2027 site.

RESULTS

Phase One: Case Study Analysis, Site Conditions, and Problem Identification

The initial stage focused on evaluating the location and identifying key issues related to planning and design. Two creative methods were employed in this process: the *Superhero* and *Lotus Blossom* strategies.

The Superhero method (Figure 1) was used to help students identify urban and architectural issues by assuming the role of an imaginary character solving spatial problems. This technique facilitated the development of empathy and fostered creative thinking (Djukic, Maric, Antonic, & Vanista Lazarevic, 2023). Almost all student groups recognized the following key issues: weak integration with the city's infrastructure, environmental degradation of waterways and canals, and the lack of public amenities. They also noted more abstract concerns, such as the underdeveloped identity of EXPO 2027. The knowledge gained led the way during the later stages of project development.

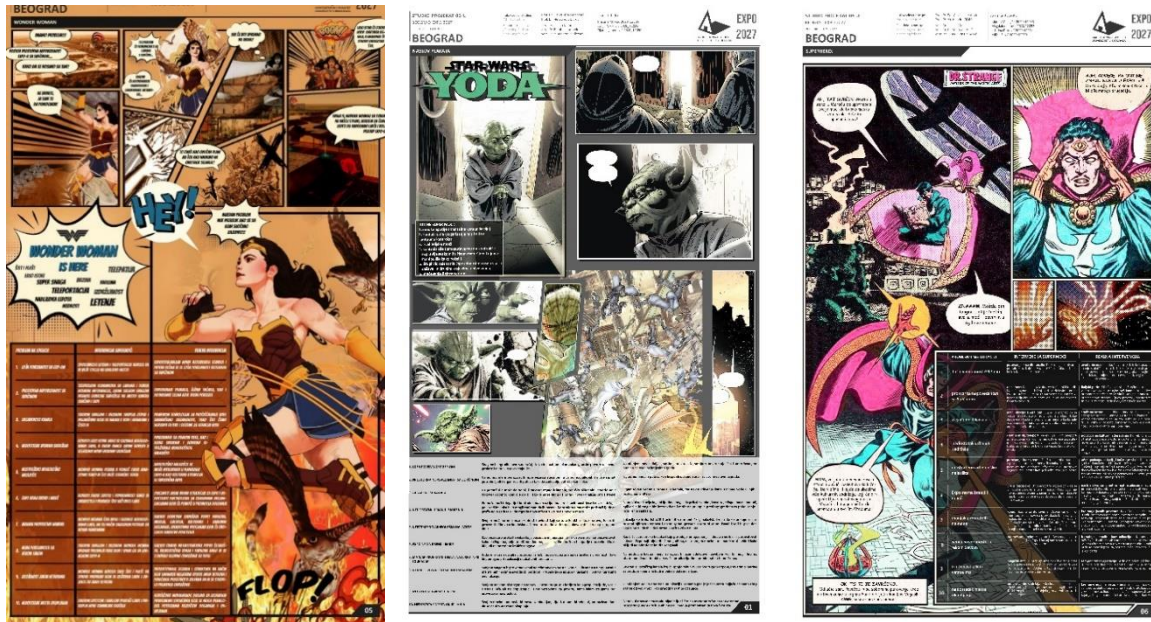


Figure 1. Method Superhero – students` posters

Furthermore, student reflections on the challenges of EXPO 2027 echoed concerns observed in prior events. For instance, students were particularly skeptical about the event's long-term sustainability and drew comparisons with the problematic legacy of EXPO 2015 in Milan. Conversely, they identified Madrid as a positive example in tackling issues of mobility and transport infrastructure, a critical weakness of the Belgrade location. The Madrid case demonstrated how strategic investment in public transportation can bring long-term benefits to a city's cultural and administrative fabric.

The Lotus Blossom technique helped to structure student ideas into thematic clusters (Djukic et al., 2023). Most projects converged around six to eight central themes: social sustainability, environmental sustainability, tourism, energy efficiency, economic development, and post-event legacy (Figure 2). Then, students continued to work on the second phase of the design process, organizing their work around a dominant theme. One common element across all projects was a shared vision of EXPO 2027 not as a transient event but as a platform for creating long-term value. Projects were framed around activating local communities and fostering educational, cultural, and tourism programs. Emphasis was also placed on physical and symbolic integration with Belgrade, as well as the development of innovation hubs as catalysts for future-oriented urban development.

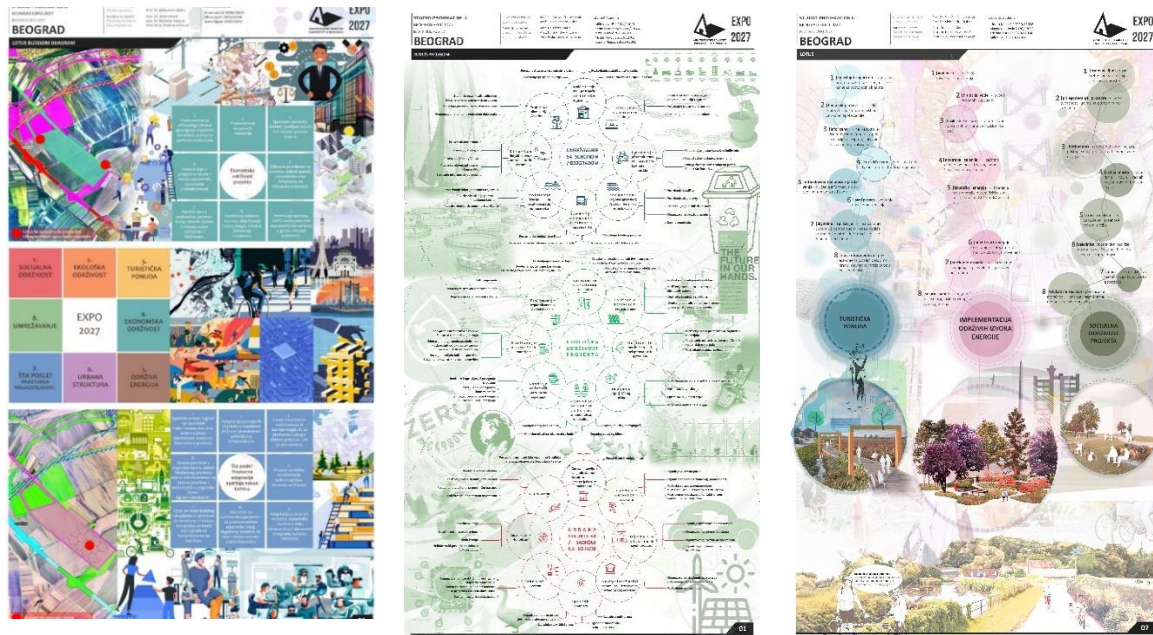


Figure 2. Conclusions from Lotus Blossom method

Phase Two: Thematic Framework and Comparative Analysis

Student projects were ultimately categorised into four thematic groups, each addressing contemporary urban challenges:

Innovative Approaches Using AI

Sustainability and Ecology

Human, Culture, and Architecture

Mechanics and Mechanisation

These categories emerged inductively from the analysis of student work, each reflecting a unique approach to the EXPO 2027 challenge. The first group explored the role of artificial intelligence in transforming urban processes. It included a single project proposing an experimental design driven by algorithmic logic, focusing on micro-, meso-, and macro-scale spatial transformations. This project emphasized flexibility and the repurposing of pavilions and ephemeral spaces into long-term urban infrastructure after the event. The next group focused on promoting environmental sustainability and comprised three student teams. Their ideas ranged from permaculture and sensory-based healthy cities to reconciling urban and rural environments. These projects relied on established ecological models and demonstrated a strong awareness of urgent environmental issues. The third, most populated group centered on the intersection of human values, cultural heritage, and architecture. Four teams developed proposals that incorporated social values in various ways, from establishing educational centers following the EXPO to utilizing the event as a platform to showcase both domestic and international cultural identities and forge symbolic links with the archaeological heritage of the site. The fourth group focused on mechanics, mechanization, and kinetic architecture. These projects envisioned dynamic, adaptable structures that could respond to changing environmental conditions and event requirements. Their performative qualities suited the temporary nature of the EXPO, while post-event usefulness was ensured through potential energy generation and spatial adaptability.

A comparative analysis reveals that most student efforts centered on the themes of social and ecological sustainability. Natural systems planning and post-event programming were seen as universal tools for long-term value creation. These projects were grounded in current urban theory and offered practical, site-responsive solutions. Projects in the human-centered category were primarily focused on the legacy of the EXPO, treating the event as a catalyst for long-term educational and cultural investment. On the other hand, while visually striking and technologically advanced, kinetic architecture projects often prioritized the temporary spectacle over the enduring function. Notably, the least represented category was innovation through AI. Despite high expectations, only one group addressed this topic, indicating a tendency among students to respond more to tangible, site-specific challenges rather than to abstract technological paradigms.

CONCLUSION

The analysis of student projects reveals a well-defined set of values that future professionals perceive as fundamental for the sustainability of EXPO 2027. Dominant themes included ecological awareness and social relevance, indicating that sustainability is not merely a technological challenge but a multidimensional planning task. Grounded in a detailed analysis of previous mega-event experiences of host cities, the students identified successful examples of smart planning, particularly those that illustrate how significant infrastructural investments can be strategically positioned within the EXPO framework through legacy planning for mega-events. The students consistently prioritized long-term legacy, community inclusion, and spatial integration over short-term spectacle. Within the scope of their proposals, they incorporated the principles of smart planning. They addressed the issue of post-event transformation of newly constructed facilities, aiming to prevent scenarios in which these structures fail to deliver long-term benefits and instead become underutilized white elephants. This focus represents a key contribution of the student projects, as it reflects their capacity to evaluate and conceptually reframe large-scale developments critically.

Rather than treating EXPO 2027 as an isolated event, students approached it as a long-term investment opportunity. Throughout the design process, particular emphasis was placed on responding to the needs of the local population, identifying spatial and infrastructural shortcomings, and proposing interventions that could improve the quality of life at both local and national levels. Consequently, the majority of the design solutions were oriented towards the domains of culture, society, and identity, revealing a pronounced interest in the potential of EXPO to support lasting cultural and educational infrastructure. In parallel, a significant number of proposals addressed environmental concerns, demonstrating a strong awareness of the city's current ecological and urban challenges. In contrast, the minimal representation of projects engaging with artificial intelligence suggests a pragmatic student orientation: while digital transformation is a central theme in urban discourse, students gravitated toward addressing pressing real-world limitations of the site (mobility, infrastructure, and integration) rather than speculative technologies. This uneven thematic distribution suggests a more nuanced insight: Students primarily interpret sustainability as a socially embedded practice rooted in equity, inclusion, and ecological resilience. They do not frame it as a futuristic or technocentric vision but rather advocate for strategic investment in education, community empowerment, and long-term environmental responsibility.

Following the submission of their conceptual proposals, students participated in a Seminar module focused on branding their projects and developing communication strategies to make the concepts more accessible to both potential investors and the public. Through the creation of booklets and accompanying promotional materials, they were encouraged to reflect critically on their proposals, identifying both their shortcomings and the aspects that required further emphasis. This process enabled them to extract key messages that needed to be conveyed to residents to secure constructive feedback and to minimize the potential

for resistance, misunderstanding, or aversion to both the proposal itself and the broader EXPO event. In doing so, through the lens of marketing and urban branding, students effectively engaged with the preventative dimension of mitigating Mega-event syndrome symptoms, which can otherwise produce lasting negative social or spatial consequences. These perspectives are highly valuable for both decision-makers and future academic models, as they point toward the potential of educational experiments to inform participatory urbanism and integrated mega-event planning.

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MECHANISMS OF LIVE-STREAMING DISSEMINATION IN PERFORMANCE EVENT: AN AIDA PERSPECTIVE ON TOURISTS' TRAVEL BEHAVIOR

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INTRODUCTION

With the rapid development of information technology, social media has become an important channel for people's leisure and entertainment, and has been integrated into people's lives. According to official statistics, the number of online video users in China in 2023 totaled 1.067 billion, an increase of 36.13 million from December 2022, accounting for 97.7% of the total number of internet users (CNNIC, 2024). Moreover, the global live-streaming industry is valued at \$87.55 billion in 2023 and it is expected to grow at a CAGR of 23.0% from 2024 to 2030 (Grand View Research, 2024). These figures indicate that there has been a general acceptance of access to information content through online media and that there has been a significant shift in the mode of viewer experience.

In the event industry, the use of live-streaming has become a popular technology for event organizers to promote effectively and for viewers to participate effectively in the engagement (Caiola et al., 2023), which can deliver the hot topics of tourism performances. Although live-streaming technology is very much recognized by event organizers and viewers in tourism performance events, there are some practical problems in the application of live-streaming technology in performance events. For example: the popularity of the live-streaming room is low, viewer retention is unstable, and it is unable to attract and retain the viewer who are new to the live-streaming room (Ding et al., 2025); the streamer is not professional enough to deal with accidents or answer the viewer's doubts in a timely manner (Wu et al., 2023). These problems are not conducive to the viewer's desire and behavior of tourism, which hinders the effective transformation of the viewer from watching to actual tourism behavior and the further development of the event performance economy.

Current research on live-streaming focuses on e-commerce, hospitality and tourism, and advertising social media (Lin et al., 2022). Although some studies discuss the application of live-streaming in event, such as sports events, e-sports, concerts (Liu et al., 2023; Jang et al., 2021; Danielsen & Kjus, 2019). Few studies have discussed the role of live-streaming in tourism performance events in influencing viewer travel behavior.

This study hopes to address two gaps. First, live-streaming can present viewers with experience quality, and when viewers watch live-streaming, they enhance their own viewing experience, and this experience can influence their behavior (Mueser & Vlachos, 2018). For example, Hua et al. (2023) highlighted that when viewers perceive sufficient experience quality from the information source, it facilitates to enhance or change their perception or awareness of the live-streaming content. Liu et al. (2023) confirmed that viewers can have a flow experience during live-streaming, which positively affects their behavioral intentions. Although many event organizers of tourism performances want to use live-streaming to bring viewers a different experience, the viewer's psychological and information reception process in live-streaming is complex (Tian & Frank, 2024). How the experience quality in live-streaming affects the viewer's actual behavior remains unclear.

Second, live-streaming is an emerging technology in which people tend to have a strong interest (Liu et al., 2022; Lv et al., 2022). In studies on tourists' behavioral intentions, the interest

of live-streaming viewers is often used as an explanation to influence tourists' viewing intentions, travel intentions, and consumption (Zhang et al., 2024; Lv et al., 2022). For example, Lv et al. (2022) demonstrated in their study that viewers' interest generated during live-streaming can positively influence their watching willingness and purchase intention. In addition, the watching experience provided by live-streaming was found to positively influence viewers' interest (Cabeza-Ramírez et al., 2021). In live-streaming, viewers' interest and intention are correlated (Zhang et al., 2020; Chen & Lin, 2018). However, intention does not equal behavior (Conner & Norman, 2022), and research on how viewers' interest from live-streaming affects their actual behavior is still limited. In other words, study on whether the live-streaming experience quality affects their interest in the context of live-streaming, and thus their desire and actual behavior, remains limited.

In order to answer these two gaps, this study defined two research questions: (1) whether the experience quality effectively influences viewers' actual behavior; (2) whether the internal state of viewer (interest and desire) influences their actual behavior.

This study used AIDA theory to construct a model of Live-streaming Performance Actual Behavior (LPAB) in the context of a tourism performance event and to explore the impact of the live-streaming experience quality on viewer interest, desire, and actual behavior. The target participants were people who had experienced tourism performance live-streaming, and a survey was conducted for this group. This study obtained valid data through simple random sampling using an online questionnaire (E-survey) and analyzed the data using Structural Equation Modeling (SEM). This study tested the association between experience quality, interest, desire and actual behavior in live-streaming.

The findings of this study contribute to a better understanding the impact of live-streaming on people. The contributions of this study can be divided into two aspects: (a) in terms of theoretical contributions, this study has explored the influence paths of the experience quality to the actual behavior, thus expanding the study of live-streaming performances and enriching the explanatory scenarios of the AIDA theory; (b) in terms of practical contributions, the results of this study can help practitioners to promote tourism performance activities more effectively and to promote an effective transformation of the viewer from viewing to travel behavior.

LITERATURE REVIEW

AIDA theory

Attention-Interest-Desire-Action (AIDA) theory is a tool for gaining insight into behavioral decision-making, and this theory lists four different stages in which people engage in behaviors (Iwamoto, 2023). These four stages range from generating attention, to interest, to the desire stage, and finally to actual action (Banerjee, 2022). The theory has been widely used in the field of social media and marketing, with researchers using AIDA as a tool to assess the effectiveness of advertising and marketing campaigns, and is often used to explain the effectiveness of social media communication (Wong et al., 2024; Abdelkader et al., 2019; Ullal & Hawaldar, 2018).

In addition, AIDA theory shows strong applicability in tourism scenarios and has been actively used to identify decision-making processes in the tourism field (Kim & Kim, 2021). This theory has been used by scholars to explain tourist or consumer behavior in the hospitality or tourism field (Amanda et al., 2020; Prathapan et al., 2018). For example, Lin et al. (2022) explored the behavioral process of consumers' choice of cultural and creative hotels based on AIDA theory, and verified that consumers' perceptions of cultural and creative hotels can positively increase their interest in accommodations, which in turn can increase their desire for accommodations, and influence consumers to take positive actions towards cultural and

creative hotels. Wei et al. (2022) used AIDA theory to analyze the mechanism of sensory marketing in tourism on consumers' visit intention, tested the effect of multisensory cues in tourism destination advertisements on customers' visit intention, and emphasized the use of sensory information to promote advertising effectiveness. Yang et al. (2024) integrated the AIDA model in the context of Korean food to validate that under the influence of a short video of a Korean meal to visit Korea's travel decision-making process when individuals viewed short videos featuring Korean food, which influenced psychological responses related to their intention to visit Korea.

The role of AIDA is more prominent in live-streaming virtual environments where live-streaming provides a more favorable platform for viewers to promote their awareness of tourism resources (Lin et al., 2022). Although these studies explain tourists' or consumers' behavioral decisions to a certain extent through the AIDA theory, the current study does not explain the actual behavior in the live-streaming scenarios of tourism performances, and the relationship between live-streaming experience quality, interest, travel desire, and actual behavior has not yet been investigated. This study uses AIDA to comprehensively examine this process.

Actual behavior

Actual behavior has been widely used to predict changes in people's attitudes-behavior, including some behavior that related to technology use (Cao & Mokhtarian, 2005; Sheeran, 2002). Current research on actual behavior focuses on consumer behavior, information behavior, using and sharing behavior, it has been used to explain effective shifts in people's intention and behavior (Mosleh et al., 2020; Taufique & Vaithianathan, 2018; Barth & De, 2017; Shirokova et al., 2016). For example, Agmeka et al. (2019) demonstrated that in an e-commerce environment, consumer purchase intentions and actual behavior are influenced by to discount framing and are mediated by brand reputation and brand image. Mishra et al. (2023) investigated the factors that influence the actual use of wearable fitness devices and demonstrated that data accuracy and device engagement have a positive impact.

In hospitality and tourism, research on actual behavior is under-explored. Most studies focus on explaining actual behavior in terms of behavior intention, thereby discussing the motivations or attitudes of tourists' or tourism consumers' behavior intention (Wut et al., 2023; Erul & Woosnam, 2022). For example, Han et al. (2018) discussed tourists' participation in pro-environmental social media activities in the context of Chinese social media and proposed a hypothetical model to explain the direct and indirect effects of pro-environmental user-generated content in activating tourists' pro-environmental behavioral intentions. Jiang (2022) confirmed that natural soundscapes are associated with tourists' emotions and behaviors from the perspective of auditory sensory experience, and verified through structural equation modeling that the actual proximity behaviors in natural soundscapes can significantly promote tourists' behavior intention. Only a few studies have directly discussed tourists actual behavior. For example, Javed et al. (2020) understood that tourists actual behavior can be altered by the influence of social media and that tourists interact and communicate when they use social media, which affects both the tourism industry and tourists, which in turn affects tourists' actual behavior. Although a few studies have examined the actual behavioral of individuals, there is still not enough current research to analyze the mechanisms that shape the actual behavior of live-streaming viewers in the context of tourism performances.

Hypothesis Development

Experience, interest and travel desire

The experience quality in live-streaming is a starting point to get the attention of the viewer, and event organizers can gain attention by designing various forms of communication and

creatively facilitating the viewer so that they can inform about the various uniqueness and tourist attractions (Conterius et al., 2020). The live-streaming experience quality is an important factor for live-streaming viewers to stimulate interest (Ho et al., 2022). A good live-streaming should exhibit four aspects: interactivity, usefulness, ease of use and novelty (Liu & Kim 2020). Interest in live-streaming usually refers to the attitude of viewers who are interested in live-streaming (Kong & Zhao, 2024; Mardiah et al., 2023). In live-streaming, users will change their interest through a new shopping experience online (Su, 2019). Several studies have shown that user experience is an important factor in enjoying and engaging with videos and users can perceive pleasure from the experience (See-To et al., 2020). The experience that viewers get from virtual streamer also affects users' perception of fun (Li et al., 2020). Therefore, the viewer's level of interest is related to the live-streaming experience quality. The following hypothesis is proposed in this study:

H1: The live-streaming experience quality positively affects viewers' interest.

Travel desire is a cognitive-emotional event focused on "traveling", the motivational attributes is experienced when people who wish to travel are unable to do so for reasons beyond their control (Mitev & Irimiás, 2021). It is different from the travel intention: the intention may manifest itself even if the craving is not particularly strong. Travel desire does not depend on the frequency of travel because travel desire and travel consumption are different phenomena (Mitev & Irimiás, 2021). Viewers watching live-streaming generate unique experiences and memory images, and mental images of anticipated memories and unforgettable experiences are thought to influence travelers' expectations of travel (Wood, 2020).

Several studies have shown that live-streaming can stimulate tourists' travel intention and demand. For example, Sun et al. (2024) confirmed in their study that tourists are influenced by nostalgic tours and advertisements, and that preferences for past trips promote their attitudes towards traveling. It has been shown that the quality of media used by users and attractive content can help users build and maintain the travel desire to a destination (Koo et al., 2016). Live-streaming can bring experience quality to viewers and also interest in live-streaming and travel resources from live-streaming, which may be an important influence on viewers' travel desire. Therefore, there is a correlation between the quality of experience and tourists' travel desire. The following hypothesis is proposed in this study:

H2: The live-streaming experience quality has a positive effect on travel desire.

Interest and travel desire

The AIDA model suggests that interest gained in tourism social media is an important prerequisite for stimulating tourist desire (Damanik et al., 2020). Live-streaming can stimulate viewers' interest in tourism resources, and the interest generated during live-streaming can contribute to viewers' desire and decision-making. Several studies have discussed the relationship between interest and desire in live-streaming marketing scenarios. For example, Li & Pugalia (2024) explored the decision-making process of live-streaming viewers in the context of the Netflix economy and examined that viewers' interest in watching live-streaming situations positively affects their desire to purchase.

Tourism-related research similarly emphasizes that interest and desire are correlated. For example, Popovici (2014) discussed how interest gained from online videos or photos in consumers' online communication environments can motivate their desire to visit a tourist destination. Wei et al. (2022) examined the effect of sensory cues in tourist destination advertisements on customers' willingness to visit using perceived attractiveness to reflect interest and intention to visit to reflect desire in their study, confirming that that perceived attractiveness positively affects visit intention. Yang et al. (2024) discussed the decision-

making process of food travel and confirmed that interest in short video content positively affects desire to visit Korea.

H3: Viewers' interest in live-streaming positively affects viewers' travel desire.

Interest, travel desire and actual behavior

Most of the current research has explored the relationship between viewers' interest and intention around social media and new technology scenarios. For example, Teng et al. (2024) investigated the process of travel intention triggered by VR consumers' interest in VR tourism, and the results showed that travel intention is significantly influenced by interest in tourism. Anuar et al. (2021) examined the impact of young tourists' perceived popularity on engagement by investigating how they perceive and trust Instagram tourism influencers, treating perceived popularity as interest, treating engagement as behavior. The above study suggests that viewers' interest may influence their actual behavior. In the tourism performances live-streaming scenario, viewers' interest from live-streaming is an important motivator that drives viewers' behavior or intention to travel (Ding et al., 2025). However few studies have explored the role of interest in live-streaming performance scenarios on actual behavior. Therefore, the following hypothesis is proposed in this study.

H4: Viewers' interest in live-streaming positively influences actual behavior.

In the general live-streaming context, the relationship regarding desire and actual behavior is usually focused on consumer behavior, and the conclusion is usually expressed as: purchase desire promotes consumers' purchase decision behavior (Chen, 2022; Liu, 2023). The limited current research discusses the direct role of travel desire, especially the effect of travel desire on actual behavior. Travel desire and actual behavior are related. For example, Koo et al. (2016) investigated the effect of potential travelers' perceptions of media exposure on their behavioral intention to visit a destination, confirming that desire to travel positively influences tourists' willingness to travel. Shields (2011) mentions in his study that college students' travel desire is a factor that influences their travel behavior. Tadawattanawit et al. (2023) in their study confirmed that tourists' travel desire has a strong indirect effect on domestic travel intentions. In the case of live-streaming performance, when there is more information available about specific activities, people will develop a desire to travel and participate in these activities, and this desire is conducive to driving the actual behavior of viewers. Therefore, the following hypothesis is proposed in this study.

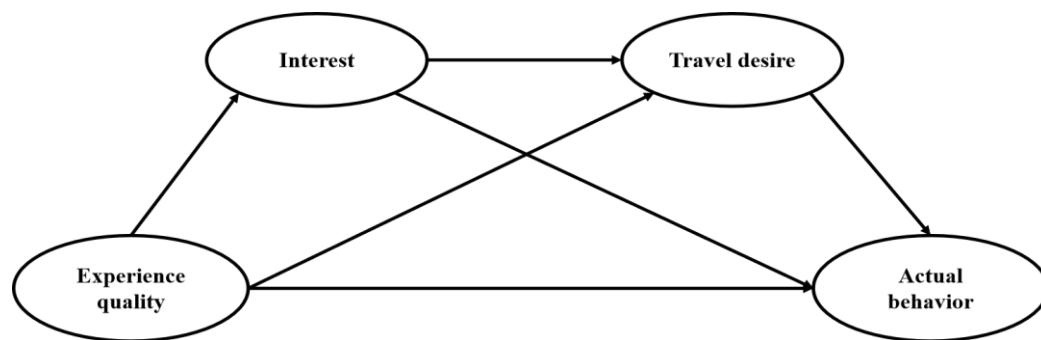
H5: Travel desire positively influences actual behavior.

Real-time viewing experience is a unique feature of live-streaming (Deng et al., 2021), especially for tourism performance event content. Live-streaming media can expose the content of tourism performance events, enable streamers to display their travel experiences anytime, anywhere, and drive viewer engagement. Current research related to tourism performance has not yet discussed the role of experience quality as a direct influence on actual behavior. Some studies have simply and indirectly discussed the impact of live-streaming experience on viewers' or tourists' behavior or intention. For example, the immersion and perceived value that viewers get from live-streaming can positively influence their behavior or intention to participate. These studies reflect that the experience quality of the live-streaming may directly affect viewers' actual behavior. Therefore, the following hypothesis is proposed in this study.

H6: The live-streaming experience quality can positively influence actual behavior.

Based on the above assumptions, we propose the following conceptual model (Figure 1).

Figure 1 Live-streaming performance actual behavior model



RESEARCH METHOD

In this study, the questionnaire method was used to collect the required data through simple random sampling based on an online platform. After collecting the data, it was analyzed using SEM method to verify the relationships between the variables. The online collection of questionnaires was chosen because (1) respondents are viewers of live-streaming events of tourism performances and they are more familiar with the online environment; (2) online collection of questionnaires makes it easier to reach the right participants, enlarges the sample size, facilitates data organization, and improves the efficiency of data collection.

Instrument development

The questionnaire for this study consisted of three main sections. A description of the study and a screening question were included in the first section. In the description, researchers informed the participants of the academic purpose and there were no correct or incorrect responses. The screening question is: "Have you ever watched a tourism performance event live-streaming?" If the answer was no, the survey was closed immediately. The second section contained basic information about the respondents, including: gender, age, education level, and frequency of watching live-streaming performances. The third section was a measure of each variable used in the model and contains a total of 16 questions, all from existing literature and previously used well-established scales, including four items of Experience Quality (EQ) (Liu & Kim, 2021), three items of Interest (IN) (Lv et al., 2022), five Travel Desire's items (TD) (Böttger et al., 2017), and 4 Actual Behavior's items (AB) (Javed et al., 2020). The questionnaire was based on a 5-point Likert scale from "strongly disagree" to "strongly agree". To further validate the content of the questionnaire, a pre-test was administered to a sample of 20 participants. All participants who participated in the pre-test indicated that they were able to clearly understand the research questions in the questionnaire, so no additional modifications were made to the questionnaire.

Sampling

This study used the online survey platform WJX (<https://WJX.com/>) for questionnaire distribution and data collection. It is one of the most widely used online platforms for collecting survey data in China. The questionnaires were collected from February 2025 to March 2025. The well-designed questionnaires took an average of 7 minutes to complete. Therefore, a total of 360 samples were collected for this study. Excluding 73 invalid questionnaires with consistent scores and incomplete answers, 287 valid questionnaires were obtained. Table 1 below briefly summarizes the demographic characteristics of the respondents who participated in this study. The demographic characteristics included were age, gender, education level and frequency of watching. There were 148 (51.6%) males. Additionally, 29.3% of the participants were between the ages of 31 and 40 years old, 39.4%

of the participants had a bachelor's degree. Finally, 37.3% of the participants watched an average of 1-2 times per month.

Table 1. Sample profile (n = 287).

Measure	Category	Number	Percent
Gender	Male	148	51.6
	Female	139	48.4
Age	18-25	38	13.2
	26-30	80	27.9
	31-40	84	29.3
	41-50	36	12.5
	50+	49	17.1
Education level	High school and lower	26	9.1
	Technical secondary school or college	105	36.6
	Undergraduate degree	113	39.4
	Master degree and above	43	15
Frequency of watching	Almost every day	67	23.3
	Once or twice a week	83	28.9
	Once or twice a month	107	37.3
	Rarely watch	30	10.5

DATA ANALYSIS

Measure reliability and validity

In this study, reliability, convergent-validity and discriminant validity tests were used to assess the conceptual model. Specifically, SPSS 26 and AMOS 24 were used to measure the reliability and validity of the model.

In general, when Cronbach's alpha (CA) value is higher than 0.6, and the composite reliability (CR) value is higher than 0.7 (Bagozzi & Yi, 1988), it indicates that the measurement model has a good level of reliability. The results of data analysis are shown in Table 2. The CA of the latent variables in this study ranged from 0.853 to 0.890, and the CR ranged from 0.884 to 0.902. This result indicates that all the reliability and validity evaluation indexes exceeded 0.7, which reflects a high degree of internal consistency and suggests that it has a good level of reliability.

Then, researchers used Average Variance Extraction (AVE) to assess convergent validity. AVE ranged from 0.634 to 0.730, and the AVE values for each structure exceeded the recommended value of 0.5 (Bagozzi & Yi, 1988), indicating that results have good

convergent-validity. Therefore, the model is considered adequate in terms of reliability and validity.

Table 2. Descriptive statistics for the constructs

Construct	Cronbach's Alpha (CA)	Composite Reliability (CR)	AVE	Source
Credibility	0.874	-	-	-
EQ	0.890	0.902	0.699	Liu & Kim (2021)
IN	0.853	0.890	0.730	Lv et al. (2022)
TD	0.876	0.896	0.634	Böttger et al. (2017)
AB	0.858	0.884	0.655	Javed et al. (2020)

In addition, this study determined the discriminant validity of the model by looking at the factor loadings and cross loadings of each item in each latent variable. Table 3 shows the factor loadings and cross loadings for each variable. The outer loadings of each of the indicators in Table 3 exceeded 0.727, which is higher than the criterion of 0.7 (Furnell et al., 1981), indicating that the model has good discriminant validity.

Table 3. The factor loadings and cross loadings

	EQ	IN	TD	AB
EQ1	0.868	0.230	0.156	0.226
EQ2	0.866	0.013	0.127	0.059
EQ3	0.846	-0.022	0.158	0.112
EQ4	0.758	0.195	0.081	0.244
IN1	0.032	0.851	0.128	0.196
IN2	0.199	0.831	0.113	0.035
IN3	0.071	0.881	0.112	0.082
TD1	0.093	0.171	0.840	-0.006
TD2	0.103	0.041	0.798	0.13
TD3	0.168	0.056	0.795	0.142
TD4	-0.005	0.271	0.727	0.227
TD5	0.190	-0.016	0.817	0.079
AB1	0.140	-0.005	0.206	0.801
AB2	0.197	0.072	0.122	0.830

AB3	0.066	0.144	0.026	0.801
AB4	0.178	0.142	0.138	0.805

In addition, the square root of the AVE and the absolute value of the correlation coefficient were compared in this study to evaluate the discriminant validity. As shown in Table 4. Table 4 describes the correlations between the constructs and the square root of AVE. The results show that the square root of AVE for each construct is greater than the correlation between the related construct and each of the other constructs, indicating that the scale has good discriminant validity.

The Measurement Structural Model and Hypothesis Testing

In this study, the first test of model fit was conducted. The results analyzed in Table 5 show that: the CMIN/DF is 1.830, lower than the recommended value of 3, which meets the standard; the RMSEA is 0.054, according to Steiger (1990), when the RMSEA is <0.10, it indicates an acceptable; and the NFI, IFI, TLI, and CFI are all above the recommended value of 0.9, which meets the standard. Taken together, all fitting indicators meet the requirements, indicating that the data fit the simulation well and can meet the research standard.

Table 4. Correlations among constructs and the square root of AVE.

	EQ	IN	TD	AB
EQ	0.836			
IN	0.423	0.854		
TD	0.404	0.415	0.796	
AB	0.496	0.377	0.412	0.809

Table 5. Model fitting

Indicators	Recommended value	results
CMIN/DF	<3	1.830
GFI	>0.9	0.939
NFI	>0.9	0.944
AGFI	>0.9	0.903
CFI	>0.9	0.973
RMSEA	<0.05	0.054
IFI	>0.9	0.974
TLI	>0.9	0.962

Next, the study conducted model evaluation and hypothesis testing. The sample size of this study is 287, and the indicators of path coefficients and significance results are shown in Table 6. The analysis shows that all path coefficients are statistically significant except IN

which has no effect on AB ($p > 0.05$), and the hypotheses formulated are supported by the results. Specifically, EQ has a significant positive effect on IN, TD, and AB ($p < 0.05$), with path coefficients of 0.372, 0.292 and 0.352, respectively (in support of H1, H2, and H6). IN has a significant positive effect on TD has a significant positive effect ($p < 0.05$) with a path coefficient of 0.198 (supporting H3). But IN cannot have a direct positive effect on AB ($p > 0.05$) (not supporting H4). TD has a direct positive effect on AB ($p < 0.05$) with a path coefficient of 0.209 (supporting H5).

DISCUSSIONS

The rise of live-streaming provides a new way of publicizing tourism promotion (Lin et al., 2022). Based on the AIDA model, this study explores the mechanism of the impact of live-streaming experience quality of tourism performances on viewers' interest, travel desire and actual behavior, responding to the latest research hotspots and research trends. The empirical results show that the experience quality of live-streaming has a significant positive effect on viewers' interest (H1), travel desire (H2), and actual behavior (H6).

Table 6. Significance and Hypothesis Test

Hypothesized relationships	S.E.	C.R.	Significance	Standard Estimate	Research Hypothesis (YES/NO)
H1: EQ > IN	0.076	5.827	***	0.372	YES
H2: EQ > TD	0.072	4.343	***	0.292	YES
H3: IN > TD	0.063	2.821	0.005	0.198	YES
H4: IN > AB	0.063	1.323	0.186	0.090	NO
H5: TD > AB	0.07	2.982	0.003	0.209	YES
H6: EQ > AB	0.074	5.222	***	0.352	YES

When viewers use live-streaming to watch performance events, viewers get the viewing experience from live-streaming, and the good quality of the experience can seduce the viewers' intrinsic states, such as interest and desire, which is partly in line with the view of Lv et al. (2022). A good experience in live-streaming also directly and positively influences viewers' behavioral, which is consistent with the findings of Kim (2022) and Cui et al. (2022).

Notably, travel desire has a direct positive effect on actual behavior (H5), but interest has no direct significant effect on actual behavior (H4 does not hold), and interest can indirectly drive actual behavior through travel desire (H3, H5 hold). This finding supports the stage progression theory of the AIDA model, which states that interest needs to be transformed into a specific desire to trigger action (Damanik et al., 2020). For example, in live-streaming, viewers may watch live-streaming content and become interested, but the actual trip involves more rational evaluations (e.g., cost, time) (Deng et al., 2024; Cheung et al., 2022), and a desire to "have to experience it" needs to be developed further, and viewers rely on the desire for an emotional push (Koo et al., 2016), then they can make the final decision to travel. This highlights the uniqueness of tourists' decision-making in live-streaming performance scenarios.

The disconnect between interest and behavior (H4 does not hold) may be due to the specificity of the live-streaming scenario: while the virtual experience of a tourism performance can stimulate interest, the actual behavior involves higher costs and complexity (Wu & Peng, 2025; Çelik & Rasoolimanesh, 2023), and relies on a stronger desire to drive the trip. This result differs from the finding that “interest directly drives intention” in VR tourism research (Teng et al., 2024), which may be due to the specificity of the live-streaming scenario.

Theoretical contribution

First, from a theoretical point of view, this study verifies the applicability of AIDA theory in the live-streaming scenario of tourism performances, proposed “Live-streaming Performance Actual Behavior (LPAB) Model”, and clarifies the chain-driven path of “experience quality - interest - travel desire - actual behavior” and “experience quality - actual behavior” direct influence path. This finding expands the application of AIDA theory in different scenarios. In particular, interest needs to be transformed into actual behavior through emotional desire to travel (Damanik et al., 2020), rather than directly. This bridges the gap of behavioral transformation mechanisms in live-streaming research.

Second, the study found a direct positive effect of live-streaming experience quality on actual behavior, which complements the influence of live-streaming technology on tourists' behavior in the field of tourism performance activities. Live-streaming technology not only indirectly influences behavior through psychological state, but also directly stimulates action, further enriching the performance of AIDA theory in live-streaming scenarios. This provides new theoretical support for continuous optimization in live broadcast design.

Practical significance

This study also provides valuable insights for stakeholders in the tourism industry. First, this study confirms that interest cannot directly act on actual behavior, and in live-streaming, managers must consider how to stimulate the travel desire of live-streaming viewers. For example, because live-streaming is non-editable and non-replayable (Wang et al., 2019), viewers may not be able to get a full picture of a performance event, and acting hastily is risky. Therefore, managers can reduce viewers' concerns by enriching the live-streaming with key information to strengthen the connection between viewers' interests and desires. For example, enriching the real-time comments in the live-streaming and strengthening the backstage assistants to answer viewers' queries in real-time allow viewers to better understand the content of the live-streaming (Lang et al., 2025; Ma et al., 2022). In addition, managers need to emphasize the importance of experience quality, and managers can enhance the interactivity between streamers and viewers, and highlight the uniqueness of performance to improve the experience quality. Thus, enhancing the significant effect of live-streaming experience quality on actual travel behavior. This provides optimization ideas for the further development of live travel show management.

Limitations

This study also presents some research shortcomings and research perspectives. First, this study only focuses on the behavior performance of tourists from China, which may have some sample limitations, and the findings may not be applicable to tourists from different cultural backgrounds. Future research could explore the application of this research model to consumer live-streaming in other countries.

In addition, this study did not differentiate between the types of performances in live-streaming (e.g., natural landscape performances vs. historical and cultural performances;

emerging fashion performances vs. cultural heritage performances), and future research could explore the differential effects of different content forms on behavior paths.

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UNDERSTANDING THE EFFECTIVENESS OF GAMIFICATION IN MACAO EVENTS

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Introduction

Gamification, which involves integrating game-like elements into non-gaming contexts, is a strategy aimed at enhancing effectiveness, adaptability, and engagement. Originating in the early 2000s and later gaining traction in e-commerce, gamification's popularity surged around 2010 (Deterding et al., 2011). It has since been recognized for its ability to improve experience, drive engagement, and influence behavior across various sectors such as production, finance, wellness, education, and entertainment.

In education, gamification has been particularly beneficial, motivating students and allowing them to learn from mistakes in a positive way (Rojo et al., 2019). This approach blends fun with learning, leading to increased student engagement and information retention. Technological advancements have further expanded gamification's applications beyond traditional boundaries, demonstrating its adaptability and transformative potential in fields like digitalization and healthcare.

Digital gamification is now entrenched in business, military, and academic programs, with some healthcare providers even recommending it as part of treatments (Heeter et al., 2011). This widespread adoption underscores society's growing reliance on technology and the motivating power of gamification, which fulfills people's need for a sense of accomplishment and drives behavioral change.

Despite its success in various industries, research on gamification's effectiveness in other areas remains limited. This paper focuses on the event industry, particularly in Macau, where the appeal of events is crucial for their success. The study aims to explore the following objectives:

1. Understanding why event planners incorporate gamification into events.
2. Investigating how participants' behavioral motivation changes after experiencing gamification in events from event planners' perspective.
3. Identifying the challenges of implementing gamification in Macau's events.

By examining these aspects, the paper seeks to determine whether the positive outcomes of gamification observed in other industries can be replicated in the event industry in Macau.

Literature Review

Gamification Overview

Gamification, although a relatively new concept, has been gaining traction for its ability to enhance brand value and guest experiences through technology (Yu, 2020). It integrates game elements into non-game contexts to boost participation and motivation (Tsourma et al., 2019). Deterding et al. (2011) define gamification as using game design elements in non-game settings to achieve specific goals, exemplified by the Swedish government's piano staircase in Stockholm, which encourages physical activity through a musical experience.

Common gamification elements include scores, badges, phases, rankings, achievement charts, virtual currency, personalization, missions, social networking features, and partners (Huseynov, 2020). Achievement charts, for instance, assess player performance over time,

while social features like texting, blogging, and linking to social networks enhance the interactive experience (Sailer et al., 2013; Werbach and Hunter, 2012).

Enhancing User Engagement

Gamification can significantly boost user engagement and exposure. Mobile apps often use daily check-ins and leaderboards to increase usage and user excitement (Koivisto and Hamari, 2019). Gamification creates a system where participants interact with challenges, receive feedback, and produce tangible outcomes (Kapp, 2012). Wut et al (2021) suggested that competition, rewards, and interactive challenges should be applied to motivate participants and enhance experience. Gamification elements fall into three categories: serious games, games, and gamification.

Games and Serious Games

Games are primarily designed for fun and entertainment, providing enjoyment and great experiences (Malaby, 2007; Aarseth, 2007). Serious games, however, aim to convey messages or educate participants rather than just entertain. They are used in fields like medical care, military, education, law, and environmental conservation (Paravizo et al., 2018; Alvarez et al., 2011). An example is Gamelearn's "Pacific," which enhances communication, leadership, teamwork, and problem-solving skills through interactive courses and real-life cases.

Gamification in Practice

Gamification, distinct from serious games, uses game components to increase motivation and engagement in various activities. The Nike Running Club app, for instance, uses challenges, points, and leaderboards to encourage frequent and effective running (Nike Running Club, 2023). While serious games incorporate a complete game structure, gamification focuses on using game-like elements to achieve specific goals.

Applications in Education and Human Resource Management

In education, gamification motivates students and creates a pleasant learning environment by incorporating fun elements reminiscent of games (Kapp, 2012). For over twenty years, gamification has attracted children and teenagers to learning, with apps like Duolingo using points and levels to engage learners in language acquisition (Duolingo, n.d.). Other educational tools like Quizlet and Kahoot use gamification to make learning interactive and competitive, enhancing cognitive abilities and behavior change (Bagus et al., 2021; Kahoot, 2023).

Gamification is also increasingly applied in human resource management. Companies use gaming methods and rewards to motivate and inspire employees, enhancing productivity and engagement (Al-Azawi et al., 2016; Kapp, 2012). Gamification can improve training programs by incorporating badges, leaderboards, and rewards, thereby boosting employees' willingness to participate and track their progress (Wunderlich et al., 2020). It fosters a positive work environment and strengthens social relationships (Palmer & Petroski, 2016).

Challenges in Implementing Gamification

While gamification has numerous benefits, it also faces challenges. Successful implementation requires strong design skills and creative ideas, as poor or inexperienced design can negatively impact the event (Villagr -Arnedo et al., 2019). Inappropriate game content or lack of creativity can lead to participant boredom and dissatisfaction (Schuldt and Friedemann, 2017).

Gamification should offer diverse motivations, such as uncertainty and achievement, to appeal to a broad audience (Sailer et al., 2013). For example, reward games like bingo add excitement and unpredictability. However, relying solely on rewards may not sustain long-term engagement, as participants may lose interest once the incentives stop (Nicholson, 2015). All these challenges may happen the same way in event industry.

The literature demonstrates that gamification is an effective tool for capturing interest and enhancing experiences in various contexts, including education, human resource management, etc. However, it must be implemented thoughtfully to avoid negative outcomes. This study aims to explore the reasons behind planners' use of gamification in events, understand how participant motivation changes post-implementation, and the challenges perceived or encountered in Macao.

Methodology

Research Approach

To explore the perspectives and concerns of Macau event planners regarding the implementation of gamification in events, this study employs a qualitative research method. According to Elliott et al. (1999), qualitative research is effective for understanding and depicting individuals' experiences and behaviors in various contexts. This approach allows for an in-depth exploration of event planners' views, concerns, and participant engagement in gamification.

Sampling Method

The study targets Macau event planners with at least three years of experience in the event industry. A purposive sampling technique is chosen to ensure that participants have relevant experience and expertise. Andrade (2021) suggests that purposive sampling allows researchers to focus on specific populations of interest, thereby standardizing the sample and excluding participants with a high risk of unfavorable outcomes.

Participant Selection

Participants are selected based on their industry expertise and roles, ensuring they represent a broad spectrum of the event industry in Macau. The sample includes two categories of interviewees: event hosts and event planners. Event hosts are entities initiating and funding the event, such as private individuals or businesses, whereas event planners plan and manage the details of events, including logistics, scheduling, and on-site management (Beaulieu & Love, 2005). This study includes both parties as they play the most significant role in determining the event details. It helps the researcher understand different perspectives of organizers on gamification.

The author prepared a list of potential respondents based on their expertise and positions within the industry. Invitations were sent and nine of them agreed to participate in the interview. However, three out of these nine respondents had to withdraw due to ad hoc schedule change and work arrangement. Due to the limited pool of qualified specialists in Macau's MICE (Meetings, Incentives, Conferences, and Exhibitions) industry, the sample size remains small but adequate for qualitative research, as per Patton (2002).

Table 1 - Interviewers' Profile

Participant	Gender	Position	Industry	Role	Year with industry
1	Female	Operation Director	Event	Event planner	10
2	Female	Event Manager	Event	Event planner	3
3	Male	Event Manager	Event	Event planner	13
4	Female	Event Executive	Event	Event planner	3
5	Female	Senior Manager in Community and Government Relations	Hospitality	Host & Event planner	6
6	Male	Project Executive Director and Event Director	Event	Host & Event planner	6

Data Collection

Semi-structured, in-depth individual interviews were conducted to gather detailed insights. Open-ended questions allowed respondents to share their unique perspectives on gamification. Interviews took place in comfortable settings like coffee shops or restaurants, conducted in Cantonese, each lasting around 30 minutes.

The questions started with respondents' understanding on gamification, followed by their experience of incorporating gamification elements in events, specific goals and motivations, observed changes in participant motivation and engagement, feedback from event participants, challenges of applying gamification in events, and suggestions for future improvements. The interviews aimed to understand how gamification can enhance the overall event experience without compromising its primary objectives.

Data Analysis

After data collection, interviews were transcribed for analysis. Thematic coding was employed to analyze the data. This process involves identifying and documenting specific data elements that represent particular concepts or ideas, facilitating the classification and indexing of data to develop theme structures. Thematic coding helps in comprehending qualitative data by identifying commonalities and distilling complex information into meaningful themes (Gibbs, 2007).

The analysis was conducted based on research questions, study objectives, and categorization of data to derive significant insights and findings. Thematic coding also allows recording the actual content meaning from each interview, revealing various viewpoints and offering flexibility in transforming data into multiple themes and sub-themes. This structured approach ensured a thorough understanding of the benefits, drawbacks, and effective strategies for implementing gamification in events.

Findings

Gamification Design

Gamification as a Versatile Approach

All the interviewees stated that gamification may be applied to a variety of situations and make an event unique. Gamification can be a tool for attraction tactics, a networking instrument, and a promotional tool. It will become difficult to catch the target audience without a gamification tool. Gamification contributes to engaging specific participants, boosting involvement, attendance, and achieving event goals, while creating interactive experiences, attracting the target market and adding enjoyment and innovation to events.

Gamification Elements in Events

Event planners prioritize effective gamification elements over additional gamification techniques, recognizing the importance of engaging experiences to capture participants' attention. Table 2 showcases various gamification elements essential for effective gamification design, spanning from virtual to physical and traditional to new. Each element significantly contributes to motivating and engaging participants.

Gamification can be used for a broad range of events and designed in diverse formats, whether imaginative or traditional. However, majority of the respondents recognized that not all types of gamifications are appropriate for every event, while one respondent believed that all gamifications can be utilized at the event as long as the aspects generate buzz because the participants' motivation will only be lightly affected if the event does not utilize gamification.

Table 2 - Example quotations

Topic	Themes	Exemplar Quotations
Gamification design	Different Formats of Gamification	I believe gamification is about creating a more immersive experience, whether in the actual or digital realm. Gamification at events refers to the incorporation of game elements, which can be standard hardware game elements or newer experiences like AR or VR. Gamification refers to activities that combine gaming aspects. Gamification can be done on an individual or team basis... whether it is digital or on-site. We have gamified competitiveness by using stuff like fan cams during conferences. A group of people were shown a live fit, and they were instructed to act in various ways based on the image. Also, we devised a game for a forum that would be relevant to the Olympic swimmer speaker and appropriate for delegates to participate in. These games are designed with specific learning objectives or themes in mind.

Gamification in
Game Design

Orienteering activities typically require participants to reach a checkpoint and then check in to complete them. However, in our activity, participants had to accomplish food-related tasks between checkpoints before moving on to the next one. In addition, we had several side activities relating to the orienteering event. For example, before the event, we worked with partner eateries to promote the activity. To be eligible for a lucky draw, participants merely needed to visit the eateries, eat, and then check in by uploading a photo on Facebook or Instagram.

We've previously engaged in online activities with fans, such as completing missions. Participants have to physically visit the place and complete both online and offline tasks.

To add a touch of modern technology, we've integrated augmented reality (AR). QR codes are strategically positioned around exhibitions, and viewers can scan them to reveal immersive AR photos or animations. To enhance the interactive experience, we've also introduced projection-based games in which a projected ball is moved in the actual world to score points.

Positive Impact

Higher Engagement

All interviewees observed a clear contrast in participant engagement when comparing events with and without gamification. Participants perceive greater creativity in event planning when gamification is involved. Incorporating games and incentives elevates engagement levels, transitioning participants from passive to active involvement, thereby enhancing overall participation. Additionally, gamification offers event planners effective tools for evaluating engagement and retention, highlighting its crucial role in enhancing participation. While gamified events may not primarily target children, they often attract parent groups due to their engaging nature.

Longer Retention Time

Incorporating gamification into events significantly improves participant experience, retention, and engagement compared to events without gamification. Gamified events sustained active engagement, facilitated social interactions, and fostered a vibrant atmosphere, unlike non-gamified events, which lacked interaction and atmosphere. This underscores the notable disparity between gamified and non-gamified events.

Enrich Event Content

Improving event content can create an unforgettable participant experience. Effective design and innovative gamification draw participants and increase event value. Additionally, gamification helps manage downtime during the event, ensuring active participant engagement even with less appealing components.

Enhance Communication and Drive Message

Gamification provides an efficient method for delivering messages and involving the target audience. By incorporating game design into non-gaming environments, it captivates participants' attention in a distinctive manner. Presenting information in a simplified and engaging way transitions passive information reception into active engagement, thereby improving understanding.

Better Achieving Objectives

Gamification serves as a powerful tool capable of influencing participant behavior by boosting motivation and increasing event appeal. It also improves learning outcomes and knowledge retention by fostering higher engagement levels. An interesting suggestion from respondents involves incorporating event missions into gamification to enhance participant engagement, particularly in exhibitions.

Trends and Assessment

Gamification is Necessary

Gamification has become ubiquitous in today's society, making it a vital component for both hosts and event planners. Whether in digital or physical form, gamification offers numerous benefits, including increased participation and valuable insights into participants' preferences, habits, and behavior. This enables hosts and planners to tailor events more effectively to meet the needs and interests of attendees.

Technology Development

In today's fiercely competitive market, integrating technology is essential for gaining a competitive edge. Gamification, often associated with electronic and technological elements, leverages technology to offer immersive experiences like virtual reality (VR) or augmented reality (AR). Furthermore, technology integration facilitates prompt tracking and evaluation of information.

Assessment of Gamification

Data collection and assessment are common practices across industries to gauge program effectiveness. In event planning, digital tools are relied upon for assessment purposes. Without digital tools for gamification components, planners cannot assess event efficiency. Presently, the assessment primarily centers on measuring participant engagement, satisfaction with the experience, and achievement of expected outcomes. While digital devices provide valuable insights, event planners often rely on feedback and observations for evaluation. When digital technology is employed in gamification, planners resort to quantitative methods for data collection.

Factors that Make Gamification Challenging to Implement

Internal Factors

Host Knowledge and Decision-Making

Event hosts play a decisive role in the successful adoption of gamification strategies. The implementation process is highly dependent on their ability to recognize participant needs and align game elements with event objectives. However, challenges emerge when hosts lack sufficient understanding of gamification concepts. Several respondents highlighted that some hosts regard gamification as a fashionable "buzzword" rather than a strategic engagement tool. This superficial perception often results in the adoption of elements that are either irrelevant to the event's goals or fail to resonate with participants. Furthermore,

although event planning usually involves collaboration between planners and hosts, poor decision-making on the part of the host may undermine the entire event. For example, prioritizing personal preferences over participant expectations could create a mismatch in the design of gamification activities. To mitigate such risks, hosts must invest in building their knowledge of gamification principles and be willing to work closely with planners in order to design participant-centered and contextually appropriate gamified experiences.

Resource Availability at the Organizational Level

Another internal constraint arises from the resources available to individual event organizers. Even when hosts are motivated to incorporate gamification, they are often restricted by limited manpower, budget, or access to organizational tools. These constraints may not be structural to Macau's wider environment, but rather specific to the internal budgeting and staffing arrangements of a particular project. For instance, a host might recognize the value of interactive technologies but lack the staff capacity to manage such systems during the event. Consequently, internal resource allocation decisions become critical in determining the feasibility of gamification. A more systematic approach to resource management within organizations could help maximize the benefits of gamification despite limitations.

External Factors

Technological Environment in Macau

The broader technological landscape of Macau constitutes a significant external challenge. Compared to more technologically advanced regions, Macau has experienced relatively slow growth in digital innovation and adoption. This sluggish pace is not within the control of individual hosts or planners but reflects broader market and policy dynamics. Several respondents emphasized that the monopolization of advanced technologies by a small number of firms further exacerbates this issue, limiting competition and the diversity of technological tools accessible to event planners. As a result, while indoor venues such as resorts may accommodate some gamified experiences, the technological environment constrains the potential for immersive outdoor or hybrid applications. Thus, planners must operate within the limitations of the local context, often compromising on the scope of innovation.

Financial Constraints at the Market Level

The cost of advanced gamification elements represents another external barrier. Respondents consistently underscored the difficulty of justifying high expenditures on technologies such as virtual reality or augmented reality in Macau's event market, where budgets are often modest. These financial pressures stem not from individual event organizers' mismanagement but from structural features of the local industry, which typically operates under restricted project funds. Under such conditions, planners tend to prioritize cost-effectiveness, opting for more affordable alternatives that, while functional, may not deliver the same level of novelty or participant engagement. This limitation highlights how broader economic and market forces shape the design and ambition of gamification strategies.

Short Lead Time of Events in Macau

Perhaps one of the most defining external factors is the short lead time of event projects in Macau. Unlike regions where events may be planned and executed over several months or even years, many Macau events follow a compressed timeline of one to two months. This structural feature is tied to the city's tourism- and entertainment-driven event industry, where projects are often designed to be seasonal, short-term, and responsive to market demands. The brevity of these timelines severely constrains the feasibility of implementing complex

technological gamification systems, which often require extended periods for setup, testing, and refinement. While simple, low-technology gamification features can be integrated relatively quickly, more innovative applications are effectively ruled out by time pressure. Therefore, the short event lifecycle constitutes an external systemic limitation that cannot be addressed solely at the level of individual organizers.

Discussion

The findings of this study reaffirm that gamification is increasingly regarded as a strategic imperative rather than an optional enhancement in event design. While prior scholarship has emphasized gamification's role in boosting engagement and motivation (Kapp, 2012; Werbach & Hunter, 2012), this research contributes by contextualizing how these dynamics play out in Macau, a city where the events industry is simultaneously ambitious and structurally constrained.

Gamification as a Strategic Necessity

One of the central insights is that planners no longer view gamification as peripheral. Instead, it is seen as indispensable for attracting audiences, differentiating events, and sustaining competitive advantage. This reflects the maturation of gamification from a "buzzword" into a core engagement tool (Wunderlich et al., 2020). However, its strategic adoption in Macau is hindered by uneven host knowledge. While some planners integrate gamification seamlessly with event objectives, others succumb to superficial applications, confirming Nicholson's (2015) warning that poorly aligned design risks reducing gamification to mere spectacle.

Balancing Innovation and Feasibility

Another critical contribution lies in highlighting the tension between creative potential and practical feasibility. Respondents demonstrated strong awareness of diverse gamification formats, from orienteering missions to AR-based interactions. Yet, these ambitions are frequently curtailed by financial constraints, technological bottlenecks, and compressed project timelines. This tension reflects a broader industry dilemma: event planners are expected to innovate, but structural features of the Macau market often reward low-cost, rapidly deployable solutions. As a result, gamification tends to be incremental rather than transformative, privileging practicality over bold experimentation.

Contradictions in the Macau Context

The Macau setting reveals a particularly striking contradiction. On the one hand, government policy actively champions technology adoption as part of the city's diversification strategy (Information Bureau of Macao SAR Gov., 2023). On the other hand, the industry's reliance on monopolized suppliers, conservative hosts, and modest budgets undermines this agenda. This misalignment illustrates a policy-practice gap, where aspirations for high-tech gamification clash with systemic industry inertia. Such contradictions suggest that without stronger infrastructural investment and industry education, the trajectory of gamification in Macau risks plateauing.

Rethinking Evaluation Practices

The findings also point to underdeveloped evaluation mechanisms. While planners acknowledged the importance of assessing engagement and satisfaction, reliance on informal feedback and observation prevails over systematic, data-driven methods. This reinforces earlier critiques that gamification research often prioritizes design over measurement (Tosuncuoglu, 2018). More rigorous evaluation frameworks are needed, both

to justify investment to cost-conscious hosts and to build an evidence base for what forms of gamification are most effective in specific contexts.

Implications and Future Directions

Taken together, these insights suggest that the future of gamification in Macau's event industry hinges on three interconnected areas. First, capacity-building is essential: hosts and planners require deeper knowledge of gamification principles to move beyond superficial applications. Second, industry-level reforms are needed to address structural constraints, particularly monopolization of technology providers and the short lead times characteristic of Macau events. Third, evaluation frameworks must be developed to capture the long-term value of gamification, beyond immediate engagement metrics.

For researchers, this study highlights the importance of shifting attention from gamification as a set of techniques to gamification as a strategic process embedded in local ecosystems. Future work could therefore compare markets with differing technological infrastructures, examine participant perspectives to complement planner insights, and test context-specific frameworks for measuring effectiveness.

Conclusion

Gamification has become a popular and essential component of event planning in Macau. This study demonstrates its success and effectiveness in stimulating participant behavior, promoting innovative event gamification, and creating enjoyable experiences. By aligning gamification with participants' needs and event objectives, planners can develop personalized elements that enhance the overall experience.

However, challenges remain. Some event hosts may not fully understand gamification, leading to disjointed and unsuccessful implementations. Effective planning, management, and evaluation are crucial for ensuring gamification's success. External factors, such as venue limitations and budget constraints, also impact gamification implementation and development.

Macau's government has successfully promoted technology and innovation, encouraging the use of technological gamification elements. Despite this, contradictions in development persist. While more events incorporate technological elements, limited resources and high costs pose challenges. These external influences will continue to affect gamification growth in the near to medium term.

The study has limitations, including a small sample size due to the lack of qualified experts and Macau's nascent event industry. The findings may not be easily applicable to other regions. Additionally, the study focused on Macau event planners within a specific societal and environmental context.

Given that this study focused on the perspective of the organizers (hosts and planners), future studies may focus more on the participants' perspective, evaluation and assessment. Developing comprehensive frameworks and tools to measure gamification effectiveness are critical. Effective indicators for collecting participant involvement and analyzing different perspectives of planners and participants on gamification implementation are necessary for continuous enhancement and comparison. Planners should consider participants' demands to enhance the overall event experience.

In summary, while gamification has proven beneficial in Macau's event industry, its successful implementation requires thorough understanding, planning, and evaluation. Addressing external factors and resource limitations will be crucial for its continued growth and effectiveness.

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TEAMING UP WITH AI: ENHANCING EVENT MANAGEMENT STUDENTS' AI LITERACY THROUGH SYNERGISTIC PARTNERSHIP

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INTRODUCTION

Technology and innovation have become increasingly embedded in the event industry (Van Winkle & Bueddefeld, 2020). In the wake of the post-COVID-19 “new normal” (Couto, 2023), exceptions from both students and industry stakeholders regarding technological proficiency have intensified. Events, by nature, offer a dynamic platform for showcasing and testing new technologies, giving rise to the concept of the “smart event” (Lei & Couto, 2022). While technologies such as 5G, augmented reality (AR), and cloud computing have already been adopted (Aktepe & Demirci, 2024), others like artificial intelligence (AI) are still developing rapidly.

Among these, generative artificial intelligence (GenAI) has emerged as one of the most transformative and widely discussed technologies (Halim et al., 2023). With its ability to engage users in natural language, generate digital content, and support decision-making, GenAI offers promising applications in the event sector. Scholars have recognized its potential to deliver highly personalized experiences and improve event planning efficiency (Cao et al., 2023; Lei & Couto, 2022). However, incorporating GenAI into pedagogical practice presents several challenges (Xiaoyu et al., 2025). Concerns such as inaccuracy, bias, and privacy risks remain critical (Lee et al., 2025). Notably, large language models (LLMs) that power GenAI chatbots can produce content that appears coherent but is factually incorrect – a phenomenon known as AI hallucination (Hannigan et al., 2024). Without a solid understanding of such risks, students may misuse AI or develop misplaced confidence in its outputs. Moreover, as automation continues to reshape the job market, even graduates face the possibility of being replaced by AI (Getz & Page, 2024).

This study presents a case-based exploration of a novel teaching intervention designed to enhance AI literacy among event management students. Grounded in Kolb's experiential learning theory, the method engages students in building GenAI-powered chatbots on their own. Through this process, students shift between roles and gain hands-on experience with their strengths and limitations. Focus group interviews (Creswell, 2009) were conducted to evaluate students' reflections and perceptions, and thematic analysis was used to identify key learning outcomes.

LITERATURE REVIEW

The Concept of AI Literacy

Multiple frameworks guide educators in fostering AI literacy, including the drafted AILit Framework (OECD, 2025) and UNESCO's AI Competency Framework for Students (UNESCO, 2024). OECD defined AI Literacy in draft as “represents the technical knowledge, durable skills, and future-ready attitudes required to thrive in a world influenced by AI.” (OECD, 2025). UNESCO's framework has two versions: one for students and one for teachers. For students aspects, it includes human-centered mindset, ethics of AI, AI techniques and applications, and AI system design (UNESCO, 2024). Yi (2021) emphasized metacognition as a key AI literacy component, suggesting that learners must develop the ability to critically select

relevant knowledge due to AI's broad scope. Gnoth & Novak (2025) similarly stressed that AI literacy should go beyond rote memorization and must include awareness of AI's potential harms and responsible uses. Ng et al. (2021) conceptualized AI literacy in four dimensions, i.e. know and understand, use and apply, evaluate and create, and ethical issues. Likewise, Chiu et al. (2024) included five key components in their AI framework: technology, impact, ethics, collaboration, and self-reflection. Stanford University's Teaching Guides (2025) identify four key pillars of AI literacy, i.e. functional literacy, ethical literacy, rhetorical literacy, and pedagogical literacy, for teachers to consider how to utilize AI. In a comprehensive review, Stolpe & Hallström (2024) emphasized the importance of technical skills, technological scientific knowledge, and socio-ethical and technical understanding. Across these AI literacy frameworks, it is not difficult to notice that ethical AI usage remains a consistent and critical theme, regardless of disciplinary context. Artificial Intelligence (AI) is rapidly emerging as a transformative technology in the event industry. It offers a wide range of capabilities, including job automation, personalized recommendation, attendee experience management, operational streamlining, cost reduction, creativity enhancement, improved safety measures, and advanced data insights (Aktepe & Demirci, 2024; Halim et al., 2023; Sailesh, 2024; Thirusanku & Ai, 2024).

GenAI and AI Hallucinations

In principle, the term "GenAI" comprises of two aspects of technology. The generative (Gen) part refers to its remarkably human-like inputs/outputs enabled by advanced Natural Language Processing (NLP) technologies (Ferrara, 2024). The artificial intelligence (AI) part refers to automatic decision-making based on large language models (LLM) that use statistical and mathematical models to predict word patterns based on massive pre-trained datasets (Kamel, 2024). GenAI could be deployed in different forms, chatbot is one of those. Chatbots gained global attention along with the release of ChatGPT by OpenAI in 2022 (Christensen et al., 2025). However, while these chatbots generating fluent and convincing responses, they do not guarantee factual accuracy (Christensen et al., 2025; Kamel, 2024; Maleki et al., 2024). Some outputs may even be fabricated when the LLM misunderstood what users are prompting (Kamel, 2024). This phenomenon is generally referred to as AI hallucination (Maleki et al., 2024).

Two commonly discussed strategies to address hallucination are: (1) Prompt Engineering and (2) Retrieval-Augmented Generation (RAG). Prompt engineering (PE) refers to crafting input prompts in a way that elicits more relevant or structured responses. While this can help shape the format or tone of answers, it does not eliminate hallucinations – especially if the desired information is unavailable or inaccurate in the model's training data. Retrieval-Augmented Generation (RAG), in contrast, embeds external, up-to-date information into the models' output process. RAG-enhanced systems retrieve relevant data from user-provided documents (e.g., PDFs, or text file) and use it to ground the AI's responses. With proper prompting, RAG makes a powerful solution for domain-specific applications. In educational settings, when students contribute their own curated sources to a RAG-based chatbot, they are better positioned to detect hallucinations during usage – especially if the chatbot outputs information does not match their submissions. RAG is essential for tailor-made GenAI services and an effective pedagogical way for customizing chatbots. Figure 1 explains the concept of prompt engineering (PE) and Retrieval-Augment Generation (RAG) in diagram format.

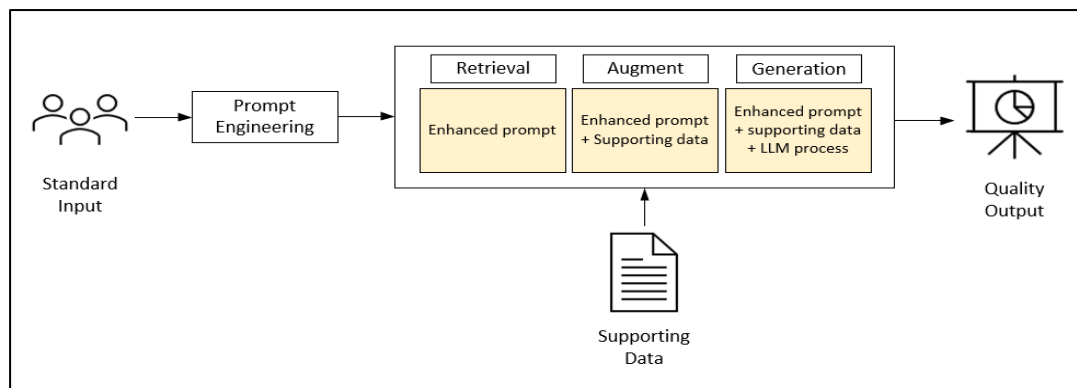


Figure 1 Prompt Engineering (PE) and Retrieval Augment Generation (RAG) in brief

Experiential Learning Theory

Experiential Learning Theory (ELT) emphasizes learning through direct experience, reflection, conceptualization, and experimentation (Kolb, 1984). It is widely applied in hospitality and event management education due to the field's practical and people-oriented nature (Kiser & Partlow, 1999). Numerous studies have demonstrated the value of experiential learning in hospitality-related programs. For instance, Kim et al. (2015) organized a conference for students as a learning exercise. Lin et al. (2017) conducted a guesthouse project to bridge theory and practice through the same theory. Experiential learning theory (ELT) has also inspired frameworks such as the Bloom-Kolb Learning Design Canva (Lourenço et al., 2022), which integrates experiential activities into curricular planning. Keiper (2023) explored the use of GenAI to support sport event planning, illustrating how experiential learning can be enriched by technological tools. Experiential learning consistently proves more effective than traditional classroom approaches (Azar et al., 2020). When integrating ELT to event management education, Rossetti (2023) recommends four key elements: teaching content; resources and support; assessment; and links to employability. This study intends to explore the integration of ELT into GenAI studies.

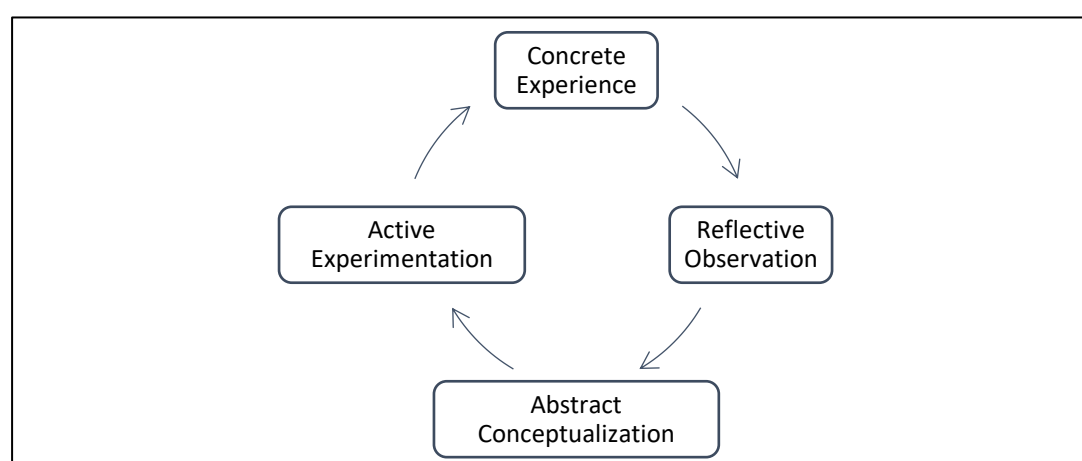


Figure 2
Kolb's

Experiential Learning Cycle

METHODOLOGY

Background of the Study

To achieve the research objectives, a suitable research environment is established. The Macao University of Tourism (UTM) was selected as the research site, as it is one of the earliest institutes in Macao to offer a Tourism Event Management degree program two decades ago (印務局, 2005). In the 2022/23 academic year, the program underwent a curriculum revamp that introduced a new course titled "Event Technology", aimed at equipping students with knowledge of emerging technologies relevant to the event industry. Since artificial intelligence (AI) is included in this course, it makes the course theoretically an appropriate platform for conducting this study. The "Event Technology" course is offered in the third year and, in the spring semester of 2025, included approximately thirty students. One of the assessment components was a group project about Indoor Positioning Systems (IPS) at event venues. Students were required to work in groups to address a set of questions related to the IPS topic. Following approval from UTM's internal research committee, this group project serves as the research environment for this study.

In May 2005, students were invited to participate in the project. Students formed themselves into groups and started to tackle the questions about using IPS in event setting by different stakeholders. Students had to consider how the event organizers, exhibitors, and participants benefit from the deployment of an indoor positioning system at an event venue. Once their materials are ready, each group would engage in the process of building a GenAI-powered chatbot. For this, Microsoft's Copilot Studio was adopted. Copilot Studio is a low-code platform that enables users to build custom AI chatbots (Microsoft Copilot Studio, 2025). The chatbots created with Copilot Studio are known as agents because they can function more than chatting (textual exchange). On advanced usage, agents can perform specific task by interacting with other AI agents with minimal or no user attention (action taken) – this approach of AI is called "Agentic AI" (Hosseini & Seilani, 2025). Figure 3 below shows a snapshot of Copilot Studio in its design mode. Students build and train agents with this web-based interface. Copilot Studio is a purposive selection due to its general availability on UTM's campus and its comprehensive documentation.

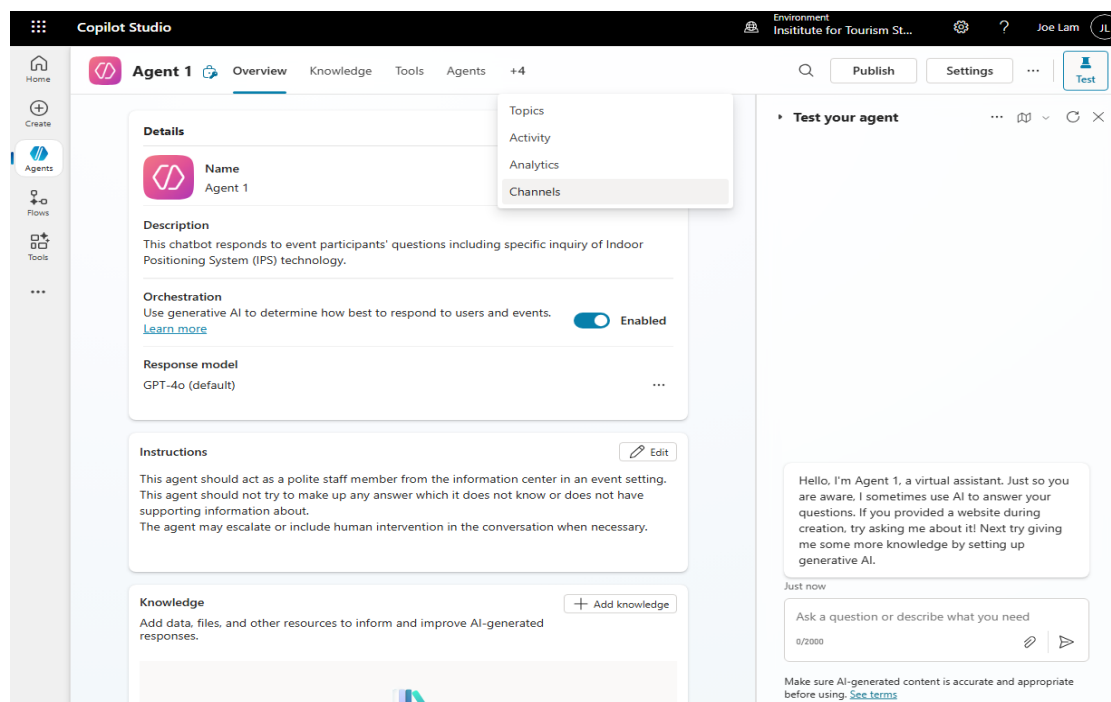


Figure 3 A partial screenshot of Copilot Studio in design mode

As a general GenAI chatbot would have no idea about students' idea of implementing IPS in events, each student group must train the chatbot with their own answers. Both chatbot building and training methods are taught individually with practice in lessons. It is worth noting that prior to this course, students had only completed two ICT-related courses in the first and second years, both of which were based on the Digital Competence Framework (UTM, 2025).

When the training task was ready, student groups participated in a demonstration where the course instructor prompted each chatbot using a set of predefined questions. At this point, students from each group became the assessor of chatbot quality. They were required to identify AI hallucinations – incorrect or misleading responses often presented in a confident and polished manner. Since the chatbot was trained with their own content, students were well-positioned to detect such hallucinations in real time. While the instructor is prompting their chatbot, students must guarantee the chatbot is responding properly like the extra member from their group who is responsible for presenting.

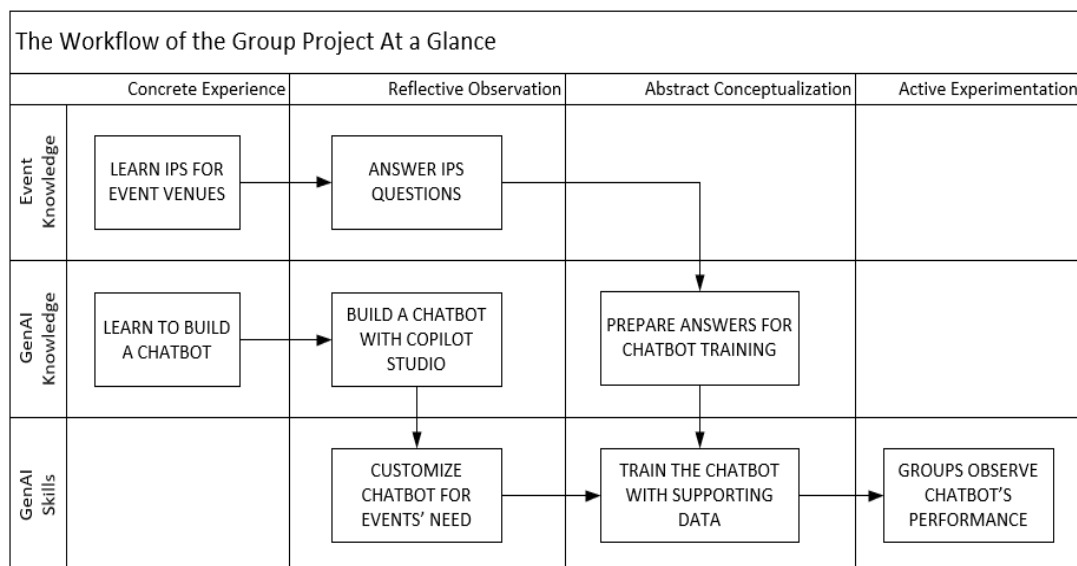
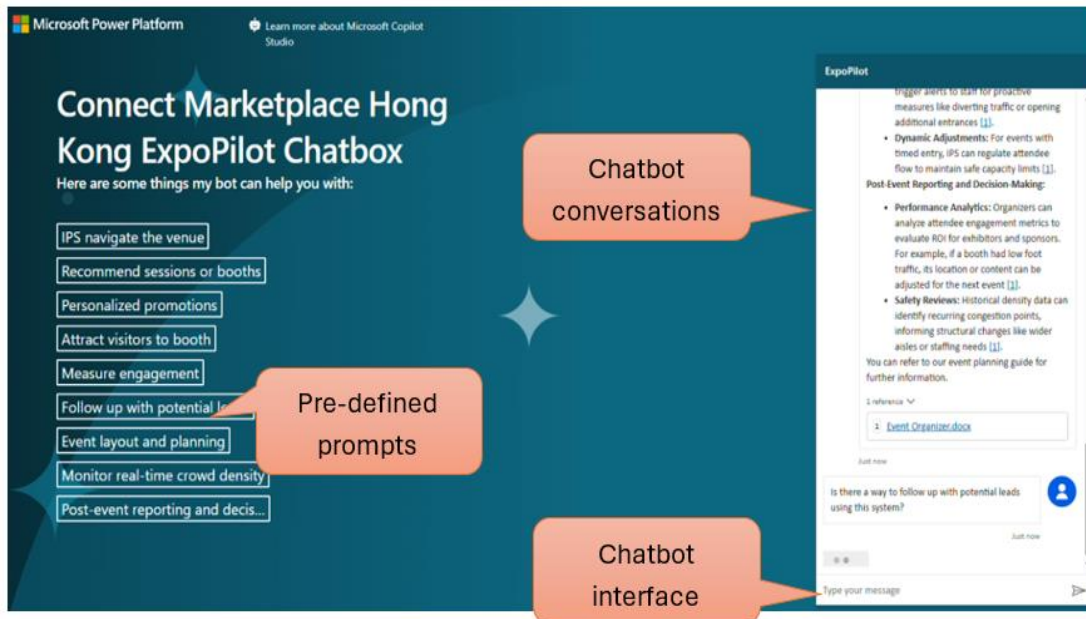


Figure 4 The complete workflow of this project in brief



Figure

5 An AI agent was published through Copilot Studio's public website channel

The presentation is followed by the data collection of this study. Upon the completion of each group's chatbot presentation, each group was invited to a focus group interview. A clear explanation of the study was provided for all students enrolled in the course. They were informed that the research was independent of their academic assessments, and participation was voluntary. Informed consent was obtained from all participants, including permissions related to audio recording, confidentiality, and anonymity. Four groups participated eventually. Table 1 explains the details of each focus group discussion.

Table 1 List of the four focus groups' profiles

Focus Group Reference	Programme	Experience of Learning AI	Interview Duration	Group Size	Gender Formation
Group 1	Year 3 Tourism Event Management	No	31minutes	6	6 Females
Group 2	Year 3 Tourism Event Management	No	20 minutes	6	5 Females & 1 Male
Group 3	Year 3 Tourism Event Management	No	29 minutes	6	2 Females & 4 Males
Group 4	Year 3 Tourism Event Management	No	29 minutes	6	1 Female & 5 Males

All focus group discussions took place at regular classrooms on campus. Interviewer started with the background introduction of the research project. Each student was assigned a pseudonym for identification during the discussion. The discussion followed four discussion guides as shown in Table 2 below.

Table 2 Guiding questions used in focus group discussions

Concrete Experience	Can you describe your experience of designing and using the chatbot for the project? Did you encounter any challenges? How did you address them if yes?
Reflective Observation	What do you think worked well during the process of designing and using the chatbot? Were there any key moments that shaped your understanding of AI Literacy and AI Hallucination?
Abstract Conceptualization	What insights have you gained about AI Literacy and the issue of AI Hallucination through this project? How does this project relate to other skills or knowledge areas you have learned in school or through personal experiences?
Active Experimentation	What ideas do you have for improving the learning of AI Literacy and minimizing AI Hallucination from this project? How would you encourage other students to develop their AI skills through hands-on projects like this?

The first section probed into the students' experiences in building and training the chatbot after preparing related materials. Then they inquired about their reflections on the chatbot, as well as how the process impacted their understanding of AI literacy and AI hallucination. The concluding section focused on the insights they gained regarding issues related to AI literacy in event-related courses. All focus group discussions were conducted in English, digitally recorded, and subsequently transcribed. The transcripts were formatted and imported into ATLAS.ti for qualitative coding and thematic analysis.

FINDINGS

The study is grounded in Kolb's Experiential Learning Theory. From the tasks required in the project, to the guiding questions in focus group interview, the four stages of experiential learning are implemented completely. Content analysis was used to identify the key theme of the study (Creswell, 2009). After completing two rounds of coding two major themes emerged from the focus group discussions.

Students' awareness of the objective of this project is evident. Multiple students shared their opinions about how different this project is from regular event technology class. A female student from Group 1 shared:

"Because most likely [often] we are using ChatGPT to ask AI some questions, and they will answer the question. However, this time, we are the one to train this AI to answer what we want this AI to answer."

Indeed, this project has multiple duties and responsibilities for students. The process began with the preparation of content about event management topics. This forms the first theme in this study.

Multi-Role in Learning AI

One of the highlights in this study is that students were having multiple roles while undertaking their project. From the basic task of preparing materials for the project topic, students also build and train GenAI-powered chatbots to "present" on behalf of the human members.

Students learned to enhance a GenAI chatbot through Retrieval-Augmented Generation (RAG) approach – a method to include additional contents to existing AI models. They also instructed Large Language Models (LLMs) to function according to their instructions to ensure their quality. Finally, students became examiners to assess the chatbot's performance when users engage in using the chatbots. Therefore, there are four roles identified based on this experience: 1) Learner; 2) Builder; 3) Trainer; 4) Assessor.

Role 1 (Learner)	Role 2 (Builder)	Role 3 (Trainer)	Role 4 (Assessor)
• Preparing answers for event questions	• Building a chatbot on Copilot Studio	• Training the chatbot with supporting data	• Ensuring chatbot quality when in use

Figure 6 The four roles assumed in this project

By assuming the distinct roles in this project, students gained a clearer understanding of each role through hands-on engagement. The process enabled students to be familiar with the concepts and skills of GenAI (Role 2 & 3), the manifestation of AI hallucinations (Role 3 & 4), and the application of event knowledge (Role 1). Students understand their roles changing from user to designer and builder. It has a significant difference in terms of tasks and responsibility. A male student from Group 4 said:

"The moment we upload the documents to Copilot platform makes me understand how can AI use technology to learn the contents it needs to learn to finish our mission."

After the chatbot is built, model customization in terms of data is the next task. This is also known as the "training" process. When native chatbot is built, it does not include any internal information about any organizations or events. Thus, training the chatbot by embedding relevant materials in it is necessary. Students were fully aware of this process while building GenAI chatbots.

"When we design content, so we cannot totally rely on what AI is doing, so we still need to adjust by ourselves for some areas." (A male student from Group 3)

Students were cautious about AI's limitations and shared their concern about the need to monitor GenAI chatbots' outputs:

"Maybe we give there some link or give there some knowledge. They can give us feedback. But if we cannot find, robot always show mistakes." (A female student from Group 1)

"If I don't know if the answer is correct, I will try to do some double check, and I will not be careful to copy and paste." (A female student from Group 3)

The assessor role was noticed by students too. Especially when the chatbot is considered as one of the group members. It is a concern when the chatbot does not deliver quality results. A student shared this anxiety:

"I was very very nervous here because we haven't tried so many times before so I still concerned about that if it works." (A male student from Group 3)

Finally, some students have shared the fact that the use of GenAI is common nowadays. Even during role one of this project that AI usage was not required, it became a habit for students to use AI when they prepare the project.

"I think, I think one point is very interesting because I use another AI, like DeepSeek to teach us how to, how to teach this AI." (A female student from Group 1)

From students' feedback, the adoption of multiple roles in AI projects can motivate students' proactive attitude in understanding every different part of the experiment. This has strengthened the efficacy of experiential learning methods in this technology-based studying topic.

Challenges and Opportunities for AI Education in Event Curriculum

Through the focus group discussions, students provided thoughtful suggestions to deeper integrate GenAI into event management curriculum. Some students expressed a strong interest in learning more about how GenAI operates underneath. They found this hands-on project valuable and suggested incorporating similar learning experiences on other courses. If possible, real-life applications of GenAI tools and field trips are recommended to contextualize this learning experience.

"We better provide a real event for testing and trying different functions in AI such as trigger and topics. For example, let students do a real AI deployment at MIF." (A female student from Group 3)

While students appreciated the learning opportunity, many also expressed discomfort and anxiety during the process. A key issue was the unpredictability of AI responses, which contradicted their initial expectations of AI as a flawless system.

"When two files are added to the system, AI may generate the third meaning as the source of data." (A male student from Group 4)

Students also encountered technical and conceptual challenges, especially when dealing with unfamiliar functions and uncertain outputs:

"I was very very nervous here because we haven't tried so many times before so I still concerned about that if it works." (A male student from Group 3)

"it's hard to understand how to use the trigger function. We may mistakenly [used] it somewhere else." (A female student from Group 3)

"Because we did not understand what Topic [on Copilot Studio] means and what Topic is so it is a bit confused when trying to consider when to use the function." (A female student from Group 1)

"The chatbot cannot understand IPS directly because terms like this are very common." (A female student from Group 1)

This theme highlights that the novelty of GenAI tools created a level of stress that educators need to consider when designing GenAI projects. On the other hand, this is also encouraging as students could reflect on them all after the project and provide guidance to improve course materials for the future. Meanwhile, there were also students expected to learn the same knowledge at a higher level. In fact, GenAI technology can generate more than textual content. The recent release of video generation model "Veo 3" from Google has made generative video highly accessible by general users (Google, 2025).

"I think we can add more than just text as medium for studying, perhaps images and videos to help better learning the AI knowledge." (A male student from Group 4)

DISCUSSIONS

This study offers several valuable insights into the integration of Generative AI (GenAI) into event management education through an experiential learning approach. As reflected in the findings, students reported that they have developed a deeper understanding of AI concepts through hands-on experience. By assigning distinct roles on GenAI platform to students as a group project, students were able to engage in different responsibilities which offered space and time for each student to reflect on what they have learnt and how to move forward. For example, after a chatbot is built, how should students prepare to train and customize them for actual use? This cannot be achieved by simply learning passively.

Students' understanding of AI significantly improved through hands-on practice, particularly in areas such as content design, AI hallucination awareness, and how to optimize GenAI's user experiences. As prior research in event education suggested that experiential learning is a powerful tool to engage students in applied, reflective knowledge-building (Kim et al., 2015; Lin et al., 2017). This study reinforces that notion, particularly in the context of emerging technologies, by adding a switch of roles during the project preparation process. Those four roles (Learner, Builder, Trainer, Assessor) are reflective upon each other thus it facilitates students' locating different knowledge pieces in the whole picture of AI literacy.

CONCLUSION

This study explored how Kolb's Experiential Learning model can be effectively applied to enhance AI literacy among event management students. By embedding the learning experience with a real-world event management scenario, students engaged into group-based, hands-on projects that required them to design, test, and reflect on AI systems.

The findings suggest that Kolb's model provides a strong pedagogical foundation for teaching emerging technologies. Students demonstrated improved understanding of AI concepts, actively shared their learning experiences during focus groups, and offered thoughtful suggestions for enhancing technology education within event programs. Importantly, the study also found that a moderate level of challenge – such as the uncertainty in AI outputs – motivated students to explore beyond what a traditional passive classroom could provide. This study also support calls from event educators (Gnoth & Novak, 2025; Lei & Couto, 2022; Stolpe & Hallström, 2024) to incorporate dedicated event technology courses, which could better prepare students for the digital transformation of the industry.

Limitations of the study should also be noted. The GenAI platform used in the project was limited to a 30-day trial, which constrained the duration and scope of student exploration. Extending access to these tools could deepen both the breadth and depth of future projects. For instance, allowing students to deploy their AI solutions in real-world event settings would be a good opportunity for active experimentation, the fourth stage in Kolb's learning cycle. Finally, the study involved only one cohort from a single course, generalizability can be limited. Further studies could expand this model to other subjects or programs, examining how GenAI projects support cross-disciplinary studies.

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EXPLORATION INTO THE INTEGRATION OF DIGITAL AND REAL INDUSTRIES IN AGRICULTURAL EXHIBITIONS IN CHINA TO PROMOTE RURAL REVITALIZATION AND DEVELOPMENT

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INTRODUCTION

The rural revitalization strategy is an important strategy for promoting the development of Chinese agriculture in the new era. The Chinese government plans to accelerate the modernization of rural circulation by vigorously building a wide range of infrastructure to promote the development of rural e-commerce, encouraging and supporting various market entities to innovate and develop a new Internet based agricultural industry model. The Chinese government has also proposed to build a new system of high-quality and efficient service industry, and promote the deep integration of modern service industry with advanced manufacturing and modern agriculture. The exhibition industry occupies an important position in the modern service industry and is an important booster for economic development, especially in promoting agricultural development and rural revitalization. Through its resource advantages of gathering advantages in information flow, technology flow, and commodity flow, the exhibition industry effectively promotes the implementation of the township revitalization strategy. With the continuous evolution of new economy and new formats, the traditional exhibition industry is facing enormous challenges. Against this backdrop, digital agricultural exhibitions are gradually emerging and have become a new driving force for rural revitalization.

The digitalization of exhibitions is based on a digital interactive platform that provides customers with digital services. Through technologies such as 3D display and virtual display, the online content of exhibitions is realized, changing the traditional participation mode of exhibitions. Through the integration of online and offline interaction, a digital exhibition model is formed. For a long time, the traditional convention and exhibition industry has always been limited to relying on urban venues, making the countryside to a large extent separated from the development of the convention and exhibition industry. The integration of the number and reality of conventions and exhibitions can make a positive contribution to the promotion of rural revitalization by taking advantage of the cross regional attribute of the Internet and holding exhibitions online.

In the existing research on digital exhibitions, industry scholars such as Yu Yue (2024) have explored the driving forces and response strategies for the digitalization of exhibitions under the background of the new economy, the transformation and upgrading of the exhibition industry under the background of the digital economy, the integrated development of agricultural exhibitions and regional economy under the background of rural revitalization, and the development model of agricultural exhibitions under the background of rural revitalization. Due to the fact that digitalization of exhibitions is a mode of continuous technological advancement, there is a certain theoretical lag in academic research. This article explores the theoretical significance and practical value of promoting rural revitalization and development through the integration of digital and practical aspects of agricultural exhibitions.

LITERATURE REVIEW

Digitization of agricultural exhibitions refers to the use of digital technology to reconstruct traditional agricultural exhibition models, with core features including online scene, extensive subject coverage, and real-time transactions. According to Yu Yue's (2024) research, digital agricultural exhibitions have achieved online exhibition content through technologies such as 3D display and virtual reality, changing the traditional participation mode of exhibitions. This transformation is closely related to the rural revitalization strategy. The Opinions of the CPC Central Committee and the State Council on the Implementation of the Rural Revitalization Strategy clearly proposes to build rural e-commerce infrastructure and encourage new agricultural industrial models based on the Internet.

The current digitalization of agricultural exhibitions mainly relies on four major technology clusters. One is virtual display technology. Chen (2023) believes that the brand sustainability of traditional agricultural exhibitions is insufficient, the promotion and innovation of exhibitions are insufficient, and the difficulty of professional exhibitions is high. The application of "Internet plus" and VR technology can promote management innovation, exhibition promotion, service innovation, business model innovation and other advantages. The VR agricultural product cloud exhibition and sales fair researched by Zhou (2023) achieves "cloud harvesting". The second is intelligent interaction technology. Zhang (2024) pointed out that the application of AI algorithms in intelligent agricultural machinery display can upgrade equipment from "networking" to "thinking". The third is data-driven technology. Du (2021) pointed out that the big data accurate recommendation system optimizes the exhibition experience. The fourth is live streaming e-commerce technology. Wang (2024) explained the connotation of live streaming e-commerce in assisting agriculture and analyzed the mechanism of its role in supporting agricultural exhibitions.

Research in the past five years has shown that the digitization of agricultural exhibitions has risen from a technological tool level to a strategic pivot for rural revitalization. Future research can focus on the quantitative evaluation of the benefits of digital exhibitions and the international comparison of digitalization in agricultural exhibitions. The existing literature is still insufficient in the study of micro mechanisms, and further research is needed to strengthen the micro impact of digital transformation on farmers' behavior, as well as to track the economic spillover effects of digital exhibitions in the long term.

China's Agricultural Exhibitions Resume Rapidly

The COVID-19 is a heavy blow to the slow growing agricultural exhibition. The frequency of agricultural exhibitions and the effectiveness of brand promotion are both affected to varying degrees. Ordinary public welfare agricultural exhibitions are mainly organized by government departments or industry associations. When government departments withdraw from organizing and hosting organizations, the organizational ability of agricultural industry associations, exhibition enterprises, and other social forces to prepare for exhibitions is relatively weak. Agricultural exhibitions that lack funding support have poor sustainability, the brand influence of exhibitions decreases, and the number of exhibitions also declines significantly.

After the epidemic, China's agricultural exhibitions have resumed rapidly. According to the China Exhibition Data Statistics Report, in 2023, a total of 7852 offline exhibitions will be held nationwide, with a total exhibition area of 143.45 million square meters, an increase of 192.77% and 195.02% respectively compared to exhibitions in 2022. The data shows that China's exhibition industry has completely emerged from the bottom market caused by the three-year epidemic, especially with exhibition areas approaching the scale of 2019, and the overall recovery trend is stable. Compared with 2022, the number and exhibition area of China's agricultural exhibitions in 2023 have significantly increased, with 271 exhibitions and an exhibition area of 6.7271 million square meters.

From the perspective of industry exhibition structure, China's agricultural exhibitions are mainly divided into eight categories: agricultural products, agricultural and sideline products, animal husbandry, and fruits and vegetables. Compared with 2022, there have been significant changes in the structural development of China's agricultural exhibition industry. The number and proportion of forestry and flower and plant exhibitions have grown rapidly, while the number and proportion of agricultural and sideline products and fruit and vegetable exhibitions have increased but decreased.

Table 1 Overview of China Agricultural Exhibition and Convention in 2022-2023

Industry	Number of exhibitions (venue)		Exhibition area (10000 square meters)	
	2022	2023	2022	2023
Husbandry	10	32	25.56	94.05
fruits and vegetables	7	16	5.39	75.62
Forestry & floral plants	3	31	13.80	81.27
Agricultural products	25	113	153.51	249.66
Agricultural & sideline products	12	23	27.51	47.95
Agricultural production materials	7	25	12.80	51.95
Meat products	1	6	1.42	15.48
Aquatic products	8	25	14.36	56.73
Total	73	271	254.35	672.71

Challenges faced by the integration of data and reality development

The brand and scale of agricultural exhibitions need to be further improved. China's agricultural exhibition industry has developed for many years and has already established a number of branded and specialized agricultural exhibitions, such as the China Yangling Agricultural High tech Achievement Expo. Agricultural exhibition brands can attract a large number of suppliers and buyers through their own brand effects, enhance agricultural product trade, promote information exchange in the agricultural product industry, and promote the technological, professional, and chain oriented development of agriculture. Most of the major agricultural exhibition brands in China are led by the government. But these brands seem insufficient compared to the large number of agricultural exhibitions held every year. The well-known exhibition brands that integrate regionalization still need to be improved. According to the "2023 China Exhibition Data Statistics Report", the number of large-scale and specialized agricultural exhibition brands is still relatively small. Among the top 100 exhibitions in terms of scale nationwide in 2023, there are only 7 agricultural exhibitions.

The innovation capability of agricultural exhibition technology needs to be improved. Applying digital technology to agricultural exhibitions is beneficial for enhancing the professionalism and service level of agricultural exhibitions, bringing immersive experiences to

the public. At present, traditional agricultural exhibitions lack the in-depth application of new technologies such as big data, cloud computing, and artificial intelligence, which affects the transformation and upgrading of agricultural exhibitions. At the same time, the management mechanism that matches digital technology is not yet perfect, which also hinders the high-quality development of agricultural exhibitions.

The cultivation and reserve of digital professionals in agricultural exhibitions are insufficient. The cultivation of agricultural exhibition professionals plays an important role in accelerating the implementation of diversified market strategies in the exhibition industry, achieving cross-border integration and development of exhibitions, and transforming the exhibition industry from extensive to specialized and precise. However, there is still a significant shortage of digital exhibition professionals, especially in the field of agriculture. From the current development status, there is a lack of composite talents who are truly familiar with the theory and practice of exhibitions and can grasp the laws of agricultural economic development. Most exhibition practitioners are not yet able to use modern network technology and information technology to guide and engage in agricultural exhibition business activities.

Promote the integration of agricultural exhibitions, data and reality, and promote the development of rural revitalization

The digitization of agricultural exhibitions plays an important role as a bridge and link in the implementation of rural revitalization strategies. Efforts can be made to promote rural revitalization and development through the integration of agricultural exhibitions, data, and reality from the following aspects.

Accelerate the construction of an integrated platform for agricultural exhibitions and exhibitions, integrating data and reality. The realization and development of the integration of digital and practical agricultural exhibitions require continuous improvement of infrastructure. By strengthening the construction of digital exhibition platforms, online exhibitions can become an important driving force for promoting rural revitalization. Based on the Internet, the integration of data and reality of agricultural exhibition industry integrates all entities in the exhibition industry chain to form an online exhibition by improving infrastructure such as cloud computing, big data and mobile Internet, and using 5G network, live broadcast technology, VR display and other technical means. The construction of the integrated platform for agricultural exhibitions should rely on technological characteristics and be developed in depth according to the needs of agricultural exhibitions. Through the construction of online display platforms, online conference platforms, live streaming marketing platforms, and cross-border e-commerce service platforms, the various processes and links of agricultural exhibitions can be displayed through online means, achieving interactivity, safety, convenience, and efficiency of online agricultural exhibitions.

Promote the integration of agricultural exhibitions and conferences

The traditional rural economy is an economic model characterized by small-scale farming, which has many problems such as small development scale, lack of resources, outdated technology, lack of sales channels, insufficient publicity, and inadequate brand building. The digitalization of exhibitions focuses on the integration of online and offline, relying on the online "cloud exhibition" model to break through regional and scale limitations and carry out digital agricultural exhibitions. On the other hand, it is to use digitalization as a tool to transform the traditional agricultural exhibition on the Internet. The development of digital agricultural exhibitions can promote the diversification of agricultural exhibition forms and play a greater role in promoting rural revitalization. The digitization of agricultural exhibitions requires both online and offline integration, strengthening the digital transformation of offline venues, and forming an independent "cloud exhibition" awareness, with the ability to conduct agricultural exhibitions entirely through online channels. Actively promoting the

onlineization of agricultural exhibitions, utilizing the advantages of online agricultural exhibitions, expanding the influence of online agricultural exhibitions, forming economies of scale, and achieving online transformation and upgrading of agricultural exhibitions through the participation of larger scale agricultural product enterprises and exhibitors.

Accelerate the integration of agricultural exhibitions and live streaming e-commerce

From the perspective of industry characteristics, online live streaming e-commerce and agricultural exhibitions are completely different operating models. However, through the digital development trend of agricultural exhibitions, online agricultural exhibitions can achieve positive interaction and integration with live streaming and e-commerce. At present, live streaming for agricultural assistance and e-commerce for agricultural products have the characteristics of decentralization and individualization. Many live streaming and e-commerce for agricultural products are centered on rural localization and promote individual agricultural products, lacking professionalism and scale. Online agricultural exhibitions have the characteristics of scale and agglomeration, breaking down industry barriers between live streaming e-commerce and exhibitions, combining online agricultural exhibitions with agricultural assistance live streaming and e-commerce, fully leveraging the complementary role of models, achieving economic growth in agricultural exhibitions, and effectively driving rural economic development by utilizing the advantages of digital agricultural exhibitions. For example, the development of online agricultural exhibitions actively forms strong alliances with live streaming e-commerce platforms, inviting large-scale agricultural live streaming enterprises to participate in online agricultural exhibitions, and providing one-stop online live streaming solutions for participating enterprises, providing effective technical support for exhibitors, reducing technical barriers, and enabling exhibitors of online agricultural exhibitions to use online live streaming sales models to promote sales scale and revenue growth.

Promote the construction of local regional brands

Developing digital agricultural exhibitions cannot avoid the current problems in the field of agricultural exhibitions. Therefore, in terms of implementation, rural revitalization requires each region to establish a distinctive development model based on its factor endowment and unique characteristics of agricultural economy. The localization model is an effective means to promote rural revitalization, and various regions can focus on cultivating and incubating localized digital agricultural exhibition brands based on their local characteristics. By adopting a "small but refined" operational model, we aim to support the development of local agricultural economy, promote the revitalization of rural brands, and ultimately facilitate the precise implementation of rural revitalization strategies.

Cultivate and introduce digital talents in the field of agricultural exhibition and convention

Improve the digital education system for exhibitions. Regarding the digitalization of exhibition teachers, it is necessary to continuously improve their teaching abilities and professional level, strictly regulate the qualification assessment and certification of exhibition professional teachers, and ensure the quality of exhibition professional education; For college students, we should actively encourage them to participate in agricultural exhibition marketing, planning and other projects in the form of college students' innovation and entrepreneurship practice training program, "Internet plus" entrepreneurship and innovation contest, and the National Exhibition Business Elite Challenge, so as to create more employment opportunities for students. We will continue to deepen the training of agricultural exhibition professionals, make full use of the Internet to integrate online and offline exhibitions, and select some well-established exhibition practitioners to focus on training. Agricultural departments or enterprises should actively cooperate with universities, broaden learning and communication

channels, cultivate more advanced agricultural intellectuals, and serve the agricultural exhibition industry.

Give full play to the role of government support and guidance

In the agricultural exhibition mode, the government also plays a core role and position. To promote the role of digital agricultural exhibitions in rural revitalization, it is necessary to focus on the transformation of the government's role and provide more effective policy support for the development of digital agricultural exhibitions. The government should further strengthen scientific planning and macro guidance for digital agricultural exhibitions; Actively strengthen cooperation with professional market entities such as enterprises, market forecasting agencies, and market consulting agencies; Develop effective measures to ensure the cultivation of the digital agricultural exhibition market; Provide more financial support and policy services for digital agricultural exhibitions.

CONCLUSION

Under the new situation, the rapid development of digital transformation in agricultural exhibitions requires strengthening comprehensive support for agricultural exhibitions from a policy perspective. This article analyzes the current situation of the development of agricultural exhibitions, the trend of integrating data and reality, and the development bottlenecks. In response to this situation, corresponding optimization suggestions are proposed from the perspectives of accelerating the construction of agricultural exhibition data and reality integration platforms, promoting the integration of agricultural exhibitions with two lines, and accelerating the integration of agricultural exhibitions with live e-commerce. The aim is to provide some reference for the integration of agricultural exhibitions with data and reality to promote rural revitalization and development.

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NAVIGATING "NEIJUAN": WHY MAINLAND CHINESE EVENT MANAGEMENT STUDENTS SEEK MASTER'S DEGREES IN MACAU

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INTRODUCTION

The term "Neijuan" began to appear frequently on China's social network platforms from 2020 onwards. It becoming an Internet buzzword almost immediately (Jialin, 2022). According to the Baidu (百度) Index data analysis platform, "Neijuan" began to increase in popularity significantly in 2021, with an overall average daily search index peak value of 88,726 (Index, 2024).

"Neijuan" become a household name and its widespread popularity reflect the current social phenomenon, especially the state of life of college students. The emergence of social phenomena must have its deep social roots. Along with the continuous development of China's higher education, the number of college students is increasing, academic qualifications are constantly expanding, and the value of the degree is depreciating. Traditional Chinese educational concepts have been deeply rooted in the minds of students. People hope that they and their descendants will be successful. When students are wrapped up in the mainstream values of society, the collective subconscious forms a kind of invisible moral pressure, and it seems that if they do not strive to become "king of kings", they will bring shame to their families, make their parents worry, and make the next generation lose at the starting line. As a result, many students have joined the ranks of "Neijuan" involuntarily. Coupled with the economic downturn made possible by the new crown epidemic, it has become increasingly difficult for graduates to find the job of their choice, and more and more graduates are choosing to pursue graduate studies or study abroad. However, there is a contradiction between the limited number of job places, the relatively single evaluation system and the rapid growth in the number of students who have the will to obtain a Master's Degree. For this reason, in order to be more competitive, college students have joined the ranks of "Neijuan" to compete for limited resources. In the educational environment, the "Neijuan" refers to the irrational competition among students, and then through the Internet, this term has been widely used in other fields, such as the workplace. It describes that individuals compete with each other for limited resources, but under the premise of limited resources, it ultimately leads to a decrease in the 'input-output ratio' of individuals (Deleuze, 1990).

The main reason for the "Neijuan" is the increased competition due to limited resources. In order to gain access to resources, more and more people are forced to engage in irrational and involuntary excessive competition (Lugosi & Jameson, 2017). Contemporary college students live in a materially rich and fast-paced society, where the high-pressure, high-strength, high-consumption nature of society forces them to make constant progress or risk being eliminated. As a result of the current "Neijuan" of education, university students, after years of study, do not receive the fruits of their hard work (McKercher et al., 2024). You can't get a job with a bachelor's degree, or a company's hiring criteria requires a minimum of a master's degree. In a fiercely competitive environment, college students either for their families or themselves, most of them inevitably join the competition, constantly squeezing themselves to catch up with others, in order to be able to submit a satisfactory CV for a well-paying job after graduation, which makes them fall into infinite anxiety (Chen et al., 2022).

These factors are forcing college students to improve their education just to get a better job or a salary that better matches their expectations. These are very common but underappreciated phenomena among event management students. From an educational perspective, "Neijuan" is the involuntary competition that students are forced to engage in to compete for limited resources (Gregory & Penela, 2023).

With the rapid development of the event industry, the competition between companies and employees becomes more and more intense (Lee et al., 2019). From year 2020 onwards, COVID-19 has had a huge impact on the event industry, which is facing a severe market crisis, leading to more low educated employees being laid off (Lopes et al., 2021). Event management students can only work in junior jobs with low wages after employment (Assen et al., 2023). Higher paid positions or managerial and administrative positions will require more education and competence (Tavitiyaman et al., 2023). In addition, university students feel "Neijuan", who are forced to improve their education in order to gain access to scarce and quality resources in the workplace, and simply to get a better job or salary (Gross & Manoharan, 2016).

Therefore, this paper takes students of event management as the object of study and explores two main issues. (1) How does "Neijuan" affect mainland students studying abroad? and (2) How to use the internalization of education to promote the development of event management education?

The research objectives of this paper are as follows: (1) To define the concept of "Neijuan" through literature review. (2) To explore the impact of "Neijuan" on outbound study by conducting in-depth interviews with master's event management students.

The contributions of this study to the existing literature are as follows. Firstly, this paper is a study based on the Conservation of Resources (COR) theory, which can extend the application of COR theory from the field of organizational behaviour to the field of event management education. Secondly, , this study expands Neijuan concept to the field of event management education. Through the study of students' "Neijuan", it goes to further explore how event management education should deal with this "Neijuan" social competition nowadays, and provide certain help for better training event management professionals.

LITERATURE REVIEW

"Neijuan"

The word "Neijuan" originates from the Latin word "involutum", which means "to turn or roll up", and includes the meaning of curling, entangling, or getting involved in an intricate and chaotic environment from the edges inwards. Immanuel Kant, a classical German philosopher, first revealed the phenomenon of "Neijuan" in the evolution of human society and formally put forward the theory of "Neijuan" in his book *The Critique of Judgement* (Kant et al., 2000). "Neijuan" can be interpreted as the continuous self-sustaining and self-replicating of a social system or social institution within an established framework during a specific historical period, which refers to a social phenomenon of "Neijuan" (Wei, 2006). It refers to a social phenomenon of "Neijuan" (Wei, 2006). Anthropologist Clifford Geertz introduced the concept of "Neijuan" into the context of agricultural economy and proposed the concept of agricultural "Neijuan". He found that in Java, Indonesia, a large amount of labour was invested in the local agricultural production process, but due to the lack of capital and technology, the local agricultural economy was unable to achieve rapid development, resulting in a large surplus of invested labour, which could not be transferred, and could only be consumed through the continuous complication of the local agricultural production process, which is also called "growth without development" (Geertz, 1965).

Today, “Neijuan” has become a key concept in Chinese humanities and social sciences research (Zhou & Guo, 2014). So far, the original meaning of “Neijuan” has been extended to take on new connotations through constant deconstruction and reshaping in today's Internet communication. The essence behind it is the imbalance between supply and demand of talents. In the field of education, with the continuous progress and rapid development of society, and constantly improve the level of education at the same time, but also caused the level of education gradually showed a trend of “intensive”, a steady stream of undergraduate and postgraduate students flooded into the talent market, the limited market demand, resulting in the depreciation of academic qualifications, and subsequently produced the phenomenon of “Neijuan”. Lin summarizes the phenomenon of “Neijuan” as the limitation of external expansion and the reduction of internal marginal benefits (Lin, 2021). When education is in the rough stage, and educational administrators and educators are busy fighting against various kinds of scarcity, education can present its natural state and allow individuals to have the opportunity to grow naturally. When scarcity is regulated to a certain stage, educators begin to “refine” education for students. Based on this, the “Neijuan” of college students' can be understood as the phenomenon of diminishing marginal benefits due to vicious competition, in which college students choose to over-refine their investment of resources in order to obtain scarce and high-quality resources in colleges and universities (Kim & Wang, 2021).

This study defines the concept of “Neijuan” in education based on the concept of “Neijuan”. It is a refined and complex behaviour of self-extraction in order to gain the right to allocate resources in the face of excessive competition on the premise of limited resources for development. The basic premise of “Neijuan” in education is the limited availability of quality resources in a given field, which corresponds to the shortage of quality education resources in higher education and quality employment resources in society.

Academic Anxiety

Academic anxiety is one of the negative emotions that appear more frequently in students (Collie et al., 2017). Moderate anxiety can have a facilitating effect on learning activities, but severe academic anxiety can have a negative impact on students' academic life, causing psychological problems such as insomnia and negative emotions (Gibelli et al., 2019). In recent years, college students' mental health problems caused by academic anxiety are common, and even produce psychological diseases (Li & Liu, 2016), triggering the frequent occurrence of events that endanger the health and safety of life such as lightening the life, and the impact of academic anxiety on the growth and development of college students should not be underestimated. Academic anxiety is the mental and emotional feedback of mental perception (Koc, 2019). The relationship between the phenomenon of “Neijuan” and academic anxiety is as follows: the phenomenon of “Neijuan” triggers academic anxiety, and academic anxiety is a psychological manifestation of the phenomenon of “Neijuan” at the individual level, and it further influences the changes and development of the phenomenon of “Neijuan”.

Conservation of Resources Theory (COR)

Conservation of Resources Theory (COR) is a motivational theory of stress that emphasises that individuals are motivated to conserve their current resources or even acquire new ones (Hobfoll, 1989), which has evolved to become one of the most frequently cited theories of organizational behaviour (Halbesleben et al., 2014). In the field of organizational behaviour, individuals often experience stress and strain when they lose resources (Halbesleben & Buckley, 2004). Previous research has also shown that when individuals lose resources at work, they may experience burnout (Neveu, 2007), emotional exhaustion (Whitman et al., 2014),

and anxiety (De Clercq et al., 2018), which may therefore lead to avoidant behaviour (Whitman et al., 2014).

“Neijuan” refers to irrational internal or internal involuntary competition, which causes peers to compete for limited resources by exerting greater effort. “Neijuan” leads to the possibility that students may be forced to compete for limited resources by exerting greater effort, which may lead to a loss of available resources. According to COR theory, the loss of resources will cause students to produce a series of behaviours to prevent the loss of resources, which is also known as “Neijuan”. In the field of education, the characteristics of the industry and the current state of society lead to event management students often being in involuntary competition (Li & Li, 2013) and feeling “Neijuan”. So many students are compelled to prepare for graduate school while they are still in school, expecting to improve their academic qualifications to get a higher job.

METHODS

This paper adopts judgement sampling for sample selection. A semi-structured approach was used to interview 15 master's degree students (numbered A1-A15) from a university in Macau. Sample selection followed two principles: firstly, the interviews were limited to master's degree students from universities studying in Macao during the period of 2023-2025; secondly, the interviews were limited to master's degree students majoring in event management. The basic information of the interview subjects is shown in Table 1.

Table 1. Basic Profile of Interviewees

ID	Gender	Age	Degree	Family situation
A1	Male	25	Bachelor	Both parents have a Bachelor's degree and are working in the government
A2	Female	24	Bachelor	Single parent family, father in used car business, demolition family
A3	Female	23	Bachelor	Poorly educated parents, in business, better off financially
A4	Female	22	Bachelor	Highly educated parents, only child, well off
A5	Female	22	Bachelor	Poorly educated parents, engaged in foreign trade business, good family situation
A6	Male	26	Bachelor	Compensation for house demolition when both parents were ordinary labourers
A7	Male	21	Specialty	My father is a lawyer, he's been studying abroad for two years, and he's from a good family.
A8	Female	24	Specialty	Parents are businessmen, gifted in languages, well-to-do family.
A9	Female	22	Bachelor	Father is a businessman, mother is a housewife, and she wants to go abroad.
A10	Male	24	Specialty	Father is a teacher, good family, wants to improve language skills

A11	Male	23	Specialty	Father was a fireman, mother a teacher, gifted in languages.
A12	Male	24	Bachelor	Both parents are secondary school teachers, working class with high expectations
A13	Female	23	Bachelor	Both parents are doctors, good family.
A14	Female	22	Bachelor	Father is an engineer, mother is a high school teacher.
A15	Female	21	Bachelor	Father is a high school principal, mother is an elementary school teacher.

Between 12 and 20 May 2025, the authors conducted interviews with the interviewees individually, both online and offline, with each interview lasting approximately forty minutes. The interviews were conducted based on a pre-defined outline. With the consent of the interviewees, the interviews were audio-recorded, and over 42,000 words of interview data were collected. The outline of the interviews is detailed in Table 2.

A total of 106 codes were labelled in this study, and they were numbered using the method of "interview sample + label order". For example, A1-3 represents the third label of the first interview sample; A2-4 represents the fourth label of the second interview sample, and so on.

Table 2. Outline of the Interview

Element	Descriptions
Interviewees	Bachelor of Hotel Management graduates from Mainland China choose foreign postgraduate education
Basic information	①Name, sex, age, level of education, family conditions, etc. ②Can you tell us about your family?Including your parents' occupation, income and education level.
Interview questions (1)	①Why do you want to study for a master's degree in Macau under the social environment of "Neijuan"? What are the effect of "Neijuan" on you? ②Was it your own idea or your parents' idea to study master's degree in Macau? How did you choose your study destination?Did you choose it yourself or was it recommended by a study abroad agent? ③Do you want to go back to your country or stay in Macau after graduation? ④Do you want to study in Macau for your Master's degree and continue to study for your PhD?
Interview questions (2)	①Do you have any friends or relatives who went abroad to study and then returned to China? ②What do you think are the advantages of master's education in Macau compared with our country?

③Are you worried about the environment in Macau (including living environment, study environment, personal safety)?

④Do you feel that studying in Macau for a master's degree will give you a greater psychological and professional competitive advantage than studying in China?Can you list one or two of them?

The 106 labels were refined and summarized into six themes: fierce competition; advantages of higher education; devaluation of degrees; exam avoidance; emotional anxiety; developmental bottlenecks. The concepts and label contents covered by open coding are shown in Table 3.

Table 3. Coding Summary

Theme	Examples of transcripts
Fierce Competition	Because of the demolition, the financial situation of the family has only improved.What I studied was just a tertiary institution. I did not want to study for a master's degree in China because the competition for the Mainland master's degree examination was very fierce in the past few years, so I might as well go abroad to study for a master's degree.(A11-5) I tried to go to graduate school when I was about to graduate from university, but then I didn't get in. Since my parents are in the foreign trade business and often go abroad, they advised me to choose to go abroad for graduate school so that I can find a job in the future.(A5-4)
Advantages of Higher Education	I obeyed the professional transfer in the college entrance examination. My parents think that it's disgraceful for a girl to work in a hotel, and I can't earn enough money, and my job is not stable enough. My parents are more supportive of my studying abroad, and they think it would be best for me to return to China and become a college teacher in the future.I am the only child in my family and my parents are intellectuals. They have always spared no effort in terms of study expenses.(A4-9)
Devaluation of Degrees	Both of my parents work in the government, and they think that I can't be worse than them in the future. They both graduated from university, but nowadays it's so difficult to get a job in university, so they think that only "returnees" can have the capital to get a good position in society. (A1-4)
Exam Avoidance	Actually, it was my own idea for me to study abroad for my undergraduate degree. I don't want to take all kinds of exams in China because I am a college student and if I don't study abroad, I will have to face constant exams if I want to upgrade my qualification next, which is too difficult. (A11-4)

	If I can't pass the post-secondary exam, I have to work for two years before I can take the exam, and it will be counted as equivalent, so it's very stressful to think about it.(A11-6)
Emotional Anxiety	My parents are in the timber foreign trade business, and I can feel the hard work of my parents in the business world. When I see other students getting employed or going to graduate school, I feel anxious. My parents want me to go abroad to study, sometimes I feel that they want to save face.(A5-13)
Developmental Bottlenecks	I often daydream that I should belong to the workplace elite in the event industry in the future, haha, but if I graduate with a bachelor's degree in China, I can only earn 3000-4000 RMB per month. But if I am a returnee, after graduating with a master's degree, I might have a chance to enter the management directly. (A12-5)

FINDINGS

Through the above research, it is found that the influencing factors of individual college students and their families in choosing foreign graduate education contain six aspects: fierce competition, advantages of higher education, devaluation of degrees, exam avoidance, emotional anxiety, and developmental bottlenecks.

Fierce Competition

The current economic recession has intensified the fierce competition for jobs, and the mainstream trend in society is to continue to improve one's skills and academic qualifications to enhance one's competitiveness in the market. Continuing to improve one's academic qualifications can, to a certain extent, provide a "cushion" against the economic slowdown and add value to oneself when the economy recovers, so that one can find an ideal job. Especially in the event industry, where closures and layoffs have been commonplace over the years, going abroad to study for a graduate degree is a good choice in order to give yourself an edge in fierce competition.

Although society is developing rapidly, education and employment policies are not in line with the situation. This has resulted in 1,000 people competing for 100 jobs. Most people do not benefit from employment and welfare policies. Despite the uncertainty of employment prospects, I still feel the need to continue my education to remain competitive. If you do not inwardly scroll, you will be eliminated from society.(A12-8)

Advantages of Higher Education

When more "degrees" are added to society and there are only a limited number of jobs, society as a whole will be caught in the "Neijuan" of "academic qualifications". The main reason for the phenomenon of "degree Neijuan" is the existence of a degree-based education structure in society, where "degree capital" is exchanged for "job opportunities". When the number of "degrees" in society continues to increase while the number of "jobs" fails to expand at the same time, the chances of exchanging "degrees" for "jobs" will decline. The chances of exchanging "degrees" for "jobs" will decline. As a result, employers have resorted to "degree upgrading", and there is a serious "mismatch between supply and demand" between workers and employers.

Nowadays, formal positions require a minimum of a bachelor's degree, and better jobs require a master's degree, a doctorate or even study abroad experience, making a high degree a knockout punch to enter the job market.(A4-7)

Devaluation of Degrees

In the face of their own development needs and the increasing depreciation of degrees in society, individuals must pursue higher levels of education in order to obtain higher-quality educational resources, and this is the generating mechanism for the expansion of educational levels. As an effective means of class mobility and class advancement, education is widely recognized by the public. In a sense, the "education devaluation" society has been formed in China. Most of the event management schools in China are not highly ranked, and many of them are junior colleges. And there is no such degree as a master's degree in event management, so they have to go abroad to study for a master's degree.

The school I graduated from was just an ordinary second-born school, so I went abroad under my parents' arrangement, and I know that undergraduates are becoming less and less valuable nowadays.(A1-2)

Exam Avoidance

At present, the employment situation of college students is getting more and more severe. Some college students and their families choose to go abroad to study for graduate school in order to escape from employment or the low acceptance rate of master's degree entrance exams in China to improve their academic qualifications. For many students, their undergraduate schools are not famous universities such as "985" and "211", so it is very difficult for them to enter these universities through the examination. This is the reason why many students choose to study abroad.

Actually, it was my own idea to study abroad for my master's degree. I don't want to take the domestic exams because I am a college student and if I don't study abroad, I will have to face constant exams if I want to upgrade my qualification next, which is too difficult.(A11-4)

Emotional Anxiety

The current social problems of income distribution in the economic sphere and of social discourse have led to a crisis of values and problems of identity among young people. The "class gap" has evolved into a social group anxiety, which is particularly prominent among college students. This kind of anxiety is the "emotional anxiety" of individual college students and their families to seek quality education resources. In the event industry, this anxiety is even more obvious, lower salaries and higher work intensity, the imbalance between effort and reward, making the psychological state of employees very negative. However, in order to advance to the leadership level in the industry, it is not enough to have excellent performance and results, but an advanced degree is a must. That's why many college students choose to continue their studies after graduation.

Some university students choose to pursue postgraduate education abroad not necessarily out of a desire for academia and knowledge, but also because they or their families are obsessed with the "aura of a high degree" as a means of relieving their inner anxieties. My parents are in the timber trade business, and I can feel the hard work of my parents in the business world. When I saw other students getting employed or going to graduate school, I felt anxious. My parents want me to go abroad to study, sometimes I feel that they want to save face.(A5-13)

Developmental Bottlenecks

With the popularization of higher education in China, the function of education as a means of achieving class mobility has been weakened to a certain extent. College students take higher education as an important means of changing their destiny, ostensibly because they are anxious about employment and identity, but actually because they want to break through the bottlenecks in development that they face as a result of class limitations. Especially in the event industry. For the current college students, after passing the fierce competition in the college entrance examination, after studying in the university for four years, they can only enter the industry as grass-roots employees, and their wages are even lower than those of security guards, which is perhaps the reason leading to the fact that many of them have gone abroad to study.

I often daydream that I should belong to the workplace elite in the event industry in the future, haha, but if I graduate with a bachelor's degree in China, I can only earn 3000-4000 RMB per month. But if I am a returnee, after graduating with a master's degree, I might have a chance to enter the management directly.(A12-5)

DISCUSSIONS

There have been many studies on Chinese students studying abroad, but few of them have been conducted from the perspective of the “Neijuan” of event management education, which reflects the importance of this study. Under the current tense relationship between China and the West, Macau has become a popular study destination. From an employment perspective, higher qualifications offer more possibilities. In the event industry, an overseas master's or doctoral degree can give you an edge over fierce competition and a higher salary, so this prompts undergraduate graduates of event management to continue to study master's degrees outside of China. In terms of the entire mainland Chinese education system, very strict entrance exams, limited employment opportunities, and lower salaries in the event industry all combine to motivate students to pursue an overseas education. These findings not only enrich existing research on “Neijuan”, but also provide insights into how it shapes the educational trajectories of Chinese students, particularly in terms of overseas postgraduate education.

Limitations and Future Research

Although this study focuses on Chinese students in Macau, future research could provide insights into the behaviour of Chinese students continuing their postgraduate education in event management in various countries and regions around the world. In addition, the participants in this study were event management students, and in the future, research can be conducted from other professional disciplines to further explore the inward spiral on the behaviour of Chinese students studying abroad.

CONCLUSION

This study examines how “Neijuan” affects the behaviour of event management students to continue their postgraduate education overseas. Admission to universities in China relies heavily on competitive entrance examinations, so many students will choose to go abroad for postgraduate study and avoid the Chinese examination endoscopy. Despite the serious devaluation of academic qualifications in our society, most companies still consider obtaining a master's degree as the minimum entry threshold and a master's degree from overseas can result in a higher salary. Students studying for a Master's degree in Event Management in Macau are required to do internships in the industry as per the programme design, so many students have the opportunity to work in Macau after graduation at a much

higher salary than working in Mainland China. All these factors further motivate them to choose to study abroad.

Implications

This paper explores the phenomenon of educational “Neijuan” in China's event management programme, which is of practical significance to university teachers, recruiters, and educational policy makers. Higher education teachers should scientifically reform the current teaching of event management to create an academically rigorous and psychologically conducive learning environment for students. They should critically respond to this phenomenon by taking appropriate measures in light of it. Recruiters in event management should focus on professional skills, not just academic qualifications, when assessing candidates. For education policy makers, it reflects the current phenomenon of graduate education being affected by “Neijuan”, leading to academic inflation. If appropriate adjustments are made by the various stakeholders in the event management profession, it is likely that the in-scrolls will have a healthy and positive impact on the development of the event industry.

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DIGITAL MARKETING TACTICS AND PUBLIC PARTICIPATION INTENTION IN EXHIBITION: EMPIRICAL RESEARCHES FROM THE GREATER BAY AREA

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INTRODUCTION

According to Luo & Bao (2007) and Measson & Campbell-Hunt (2015), exhibitions within the MICE economic ecosystem possess distinctive characteristics involving multiple stakeholders with divergent needs. This research focuses on exhibitions as defined by Lee & Min (2013): large-scale marketing events organized by professional hosts within specific timeframes and venues, targeting particular industry sectors to showcase products, technologies, and services through physical displays or multimedia presentations. Exhibition activities fundamentally comprise three stakeholders: organizers serve as planners responsible for venue management and operations; exhibitors function as content providers through displays and event experiences; participating audiences constitute the ultimate recipients, engaging through visits and interactions while providing market feedback.

The Guangdong-Hong Kong-Macao Greater Bay Area represents one of the world's most active exhibition regions. In 2023, Guangdong hosted 781 exhibitions covering 27.64 million square meters, increases of 266.67% and 224.95% respectively, ranking first in China. However, emerging technologies including Internet, big data, and artificial intelligence present unprecedented challenges for traditional exhibition marketing. Many regional exhibitions have begun incorporating digital marketing strategies such as social media and influencer marketing, achieving significant results. Previous empirical studies focus on specific digital marketing tactic, such as digital content marketing (Bowden & Mirzaei, 2021), social media marketing (Wang & McCarthy, 2020; Yang et al., 2016), and influencer marketing (Lou & Yuan, 2019), lacking holistic consideration. This study systematically defines a comprehensive digital marketing framework encompassing social media marketing, digital content marketing, influencer marketing, paid digital advertising, data-driven marketing, and email marketing to explore their collective impact on exhibition participation intention. Second, this research deconstructs participation intention into two dimensions: "Customer Engagement" (cognitive acceptance of marketing information) and "Customer Interactivity" (behavioral interactions like sharing and commenting), addressing the multi-dimensional nature of exhibition participation (Gopalakrishna et al., 2019; Lee & Min, 2013). Third, this study focuses on the Greater Bay Area exhibition context, filling research gaps in exhibition marketing while providing insights into regional digital marketing effectiveness. Fourth, following Fang & Ding (2020), this research categorizes participants into professional and non-professional audiences based on sales/non-sales goals, examining differential impacts through separate models. Finally, this study employs source separation methodology through paired questionnaires targeting organizers and public participators to mitigate single-source bias and common method variance issues prevalent in exhibition research (Avolio et al., 1991).

LITERATURE REVIEW

This study primarily employs Stimulus-Organism-Response (S-O-R) theory as the theoretical framework to explain how digital marketing strategies influence exhibition participation intentions across different audience groups (Kim & Lennon, 2013; Mehrabian & Russell, 1974; Zhang et al., 2021). In this study context, the applications of digital marketing tactics serve as

external stimuli (S), including digital content marketing, influencer marketing, and email marketing. These marketing stimuli influence professional audiences' participation motivation intensity and non-professional audiences' marketing information sensitivity (O, internal mechanisms), ultimately leading to varying dimensions and intensities of exhibition participation intention (R).

According to Lee et al. (2010), professional exhibition attendees typically have clear commercial objectives and professional demands when attending exhibitions, such as seeking business cooperation opportunities and understanding industry trends. In contrast, non-professional audiences are more motivated by leisure experiences, knowledge exploration, and social needs. These fundamental motivational differences determine distinct characteristics in exhibition behaviors and interaction patterns between the two groups. From an exhibition marketing practical perspective, professional and non-professional audiences also differ significantly in how they receive and process marketing information. Professional audiences can more accurately understand and evaluate professional information, with decision-making processes relying more on rational analysis and professional judgment. Non-professional audiences are more susceptible to brand influence and marketing presentation formats, with participation decisions based more on emotional cognition and overall impressions. Following Fang & Ding (2020), this study categorizes research subjects into professional and non-professional public audiences based on whether they participate in exhibitions with sales/non-sales goals, constructing separate influence models for each group.

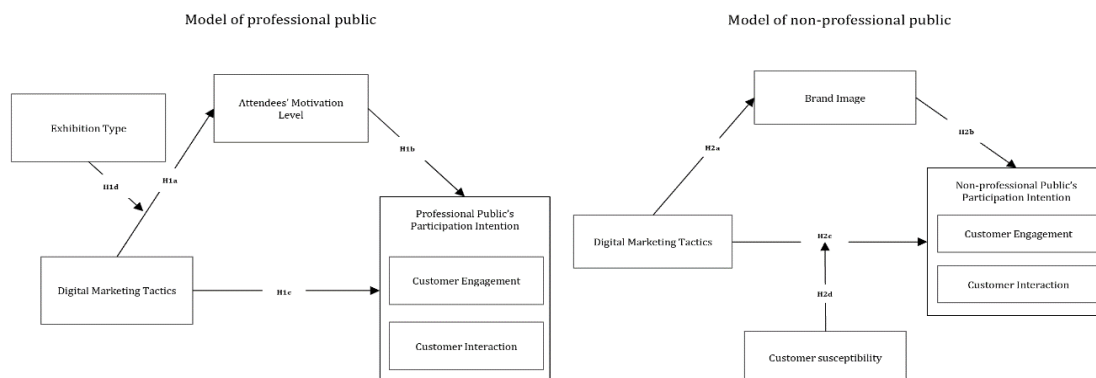


Figure 1 The proposed model.

Digital Marketing Tactics

Digital marketing strategy is an integrative concept encompassing multiple interconnected digital channels and tactics. Based on previous empirical research, digital marketing comprises six key dimensions: social media marketing (Bowden & Mirzaei, 2021), digital content marketing (Wang & McCarthy, 2020), influencer marketing (Lou & Yuan, 2019), digital paid advertising including SEO and SEM (Baye et al., 2016), data-driven marketing (Wedel & Kannan, 2016), and email marketing (Kumaret al., 2014).

Participation Intention

Public participation intention refers to the level of commitment individuals or customers exhibit before engaging in activities or services, encompassing cognitive, emotional, and behavioral dimensions. Cognitively, it reflects the importance individuals place on activities and their psychological readiness (Lai & Wong, 2021). Emotionally, it involves satisfaction, trust, and other affective experiences during participation (Lai & Wong, 2021). Behaviorally, it

encompasses actual participation and contribution behaviors such as providing feedback and engaging in interactions (Gopalakrishna et al., 2019).

This study decomposes exhibition participation intention into two dimensions: "Customer Engagement" and "Customer Interactivity" (Gopalakrishna et al., 2019). According to Gopalakrishna et al.'s (2019) model, exhibition behavior encompasses cognitive behavior and actual behavior stages, reflecting participation depth and breadth. "Engagement" represents individual investment in exhibitions, including goal-oriented behaviors like purchase intentions and knowledge acquisition. "Interactivity" stems from the exhibition industry's unique attributes, where social elements and trade show dialogue constitute independent behavioral dimensions.

Attendees' Motivation Level & Exhibition Type

According to Lee, Yeung & Dewald (2010), attendees' motivations for attending exhibitions can be categorized into five primary dimensions: First, Fulfillment of Business Needs: attendees seek new suppliers, partners, or customers to achieve business transactions and collaborations. Second, Networking Opportunity: participants aim to meet industry peers, establish professional networks, and exchange industry information. Third, Information Search: attendees utilize exhibitions as vital channels for understanding industry trends, competitor situations, and obtaining product/service information. Fourth, Reward/Incentive Travel: some participants view exhibition attendance as company employee rewards. Fifth, Market Investigation: attendees compare different products/services, trial new products, and prepare for purchasing decisions (Lee et al., 2010). According to Lee et al. (2010), understanding attendees' motives holds significant importance in exhibition research, enabling organizers and exhibitors to better meet participant's needs and expectations.

Exhibitions can be primarily categorized into two types: Public Shows(Exhibitions) and Trade Shows(Exhibitions). Public exhibitions are open to the general public, aimed at promoting products, services, or concepts to broad audiences (Li & Liu, 2022). Trade exhibitions focus on facilitating commercial interactions and transactions between exhibitors and visitors, which are typically industry buyers, suppliers, or service providers (Lai, 2015; Li et al., 2022). Currently, trade exhibitions tend to be larger in scale with higher levels of specialization and sophistication.

Brand Image & Customer Susceptibility

Brand Image is a concept reflecting the value and effectiveness generated by exhibition activities through their brands. According to Camarero, Garrido, & Vicente (2010), brand image can be defined as "brand perceptions that reflect consumers' brand associations in consumers' minds," serving as an identifier for organizations or cultural activities that distinguishes them from other brands. Camarero et al. (2010) proposed four key dimensions for evaluating brand image: First, brand recognition reflects consumers' familiarity and basic cognition of the brand. Second, overall perception and evaluation embodies consumers' judgment of the overall experience provided by the brand. Third, brand prestige assessment involves consumers' perception of the brand's industry position and social influence. Finally, brand uniqueness and distinctive characteristics reflect brand's differentiation positioning. Strong exhibition brand influence helps enhance participants' satisfaction, loyalty, and willingness to pay, thereby driving sustainable development of exhibitions (Camarero et al., 2010; Jin & Weber, 2013).

Customer susceptibility refers to consumers' acceptance level and response tendency toward corporate marketing information (Kumar et al., 2016). Kumar et al. (2016) found through empirical research that consumers with higher marketing information susceptibility often demonstrate stronger social media participation intentions. Marketing information

customized based on customer susceptibility can be disseminated through multiple channels and formats, including traditional media, digital media, and social media, resonating with various consumer groups and triggering substantive activities such as likes, comments, and content sharing (Haon et al., 2020; Kumar et al., 2016; Santana & Moreno-Gil, 2017).

HYPOTHESES

Professional public

Mediating effect of motivation. Based on Lee et al. (2010), professional exhibition participants' motivations include business needs fulfillment, networking opportunities, information search, reward travel, and market investigation. Digital marketing enhances information search and market investigation motivations through convenient information retrieval and market analysis functions, strengthening value perception and participation intention. When digital marketing provides rich social interaction features, it further enhances motivation intensity, converting to stronger interaction willingness. This research focuses on motivation intensity rather than typological classification, hypothesizing that digital marketing applications increase existing motivation strength across core dimensions rather than changing motivation types. Therefore, it is hypothesized that:

H1a & H1b: Level of attendees' motivation mediates the relationship between digital marketing tactics and participation intention among professional public. The increased application of digital marketing tactics can enhance the intensity of professional attendees' motivation, thereby strengthening their exhibition participation intention (including both "engagement" and "interactivity")

H1c: Among professional public, digital marketing tactic positively influence exhibition participation intention.

Moderating effect of exhibition type. Gopalakrishna et al. (2019) discuss the uniqueness of trade shows, noting that these exhibitions are typically major events requiring participants to carefully plan their visit schedules in advance. Research reveals that exhibition-related digital dialogue not only strengthens participants' experiential impressions but also influences potential participants through social network diffusion effects. Based on these findings, applying digital marketing strategies in trade exhibitions may produce more significant effects than in the other exhibition type. Professional audiences in trade exhibitions typically have clear participation objectives and professional needs, which digital marketing strategies can precisely serve, thereby strengthening their motivation level. Thus the following hypothesis is:

H1d: Among professional public, exhibition type moderates the relationship between the application of digital marketing tactics and level of attendee's motivation. Comparatively, the positive impact of digital marketing application on the level of attendee's motivation is stronger in trade shows than in public shows.

Non-professional public

Mediating effect of brand image. Camarero et al. (2010) found that marketing efforts shape positive brand image, which influences visitors' attendance decisions. Application of digital marketing tactics shapes exhibition brand image through multiple channels, continuously conveying core value propositions via social media and websites, establishing positive associations like professionalism and innovation. Good brand image promotes participation intention by reducing perceived risk, creating expectations of high-quality experiences, and strengthening emotional connections. Digital marketing shapes exhibition brand image through multi-dimensional communication, which converts to stronger participation intention among non-professional audiences.

Wang & McCarthy (2020) found that digital content formats affect audience engagement on Facebook. Video formats facilitate complex information transmission and deeper interaction, while images attract attention for basic participation. Digital technology lowers participation barriers and enhances initial exhibition intention through optimized content presentation. Lee et al. (2018) analyzed over 100,000 Facebook messages, identifying two pathways through which digital marketing influences user behavior: basic participation channels (likes, shares) and interactive opportunities (comments, dialogue). For ordinary users, deep digital technology applications like multimedia integration significantly enhance interactive willingness more than basic participation behaviors. Therefore, in exhibition contexts, digital marketing can lower barriers for non-professional audiences and provide rich interactive channels, enabling participation through interaction despite knowledge limitations. Taken together, it is hypothesized that:

H2a & H2b: Among non-professional public, brand image mediates the relationship between digital marketing tactics and participation intention. Increased digital marketing application enhances exhibition brand image, thereby strengthens participation intention (including both "engagement" and "interactivity").

H2c: Among non-professional public, digital marketing tactic positively influence exhibition participation intention.

Moderating effect of customer susceptibility. Kumar et al. (2016) found that Firm-Generated Content (FGC) influences customer behavior through valence, receptivity, and susceptibility, when companies increase FGC investment, customers with higher susceptibility demonstrate stronger responses and purchasing behaviors. This moderation operates through the following mechanisms: high-susceptibility customers show greater attention to digital marketing content, exhibit more active participation tendencies, and respond more rapidly to marketing information. In exhibition contexts, public with higher marketing information susceptibility will be more influenced by digital marketing tactic, producing stronger participation intention. Hence, the following hypothesis is:

H2d: Among non-professional public, customer susceptibility moderates the positive relationship between digital marketing application and participation intention. The positive impact is stronger for public with higher susceptibility.

METHODOLOGY

Measure

This research employs a Paired Survey Method to reduce Common Method Variance bias (Podsakoff et al., 2003). The study uses 2 questionnaires targeting exhibition organizers and their corresponding participants, employing one-to-many pairing for objective data collection.

Organizer surveys examine digital marketing strategy application in their most recent exhibition. Focusing on recent activities ensures temporal matching between organizer and public responses, provides clearer memory for accurate responses, and controls confounding factors by maintaining similar economic conditions (Mitchell & James, 2001). We measured the level of digital marketing application through a 6-item scale, covering Social Media Marketing, Digital Content Marketing, Influencer Marketing, Digital Paid Advertisement, Data-driven Marketing, Email Marketing (Bowden & Mirzaei, 2021; Wang & McCarthy, 2020; Yang et al., 2016); The items in all scales were measured on a 5-point, Likert-type scale anchored from 1 (strongly disagree) to 5 (strongly agree).

Public surveys use unified content, distinguishing professional and non-professional audiences through the screening question "Did you participate for purchasing/sales purposes?" (Fang &

Ding, 2020). Survey measures customer engagement (Lai & Wong, 2021), customer interaction (Kuo & Chen, 2023), attendee's motivation level (Lee et al., 2010), exhibition type (Lee et al., 2010), customer susceptibility (Kumar et al., 2016), and brand image (Camarero et al., 2010). All respondents complete the entire questionnaire, with professional/non-professional classification determined through the screening question. The items in all scales were measured on a 5-point, Likert-type scale anchored from 1 (strongly disagree) to 5 (strongly agree).

Data Collection

Questionnaires were formally distributed in the Guangdong-Hong Kong-Macao Greater Bay Area. We use Wenjuanxing platform for questionnaire distribution and collection. The research team first sent organizer questionnaire links to exhibition staff. After receiving and validating organizer questionnaires, the team generated corresponding public questionnaire links using the unique Exhibition ID and sent them to staff who completed the organizer questionnaire. Organizer staff then distributed questionnaire links through personal channels (including social media, email, etc.) to audiences they marketed to in their most recent exhibition. The Wenjuanxing platform automatically collected and stored all organizer questionnaires and their corresponding public questionnaires. The research team used the Exhibition IDs to achieve precise one-to-many pairing between organizer and public questionnaires.

The study ultimately collected 25 organizer questionnaires with 18 valid responses, and 667 public questionnaires with 658 valid responses. Among these, 537 could be effectively matched with organizer questionnaires using Exhibition IDs, achieving an 82% matching rate. The final effective sample size was 537 observations, comprising 240 professional audiences and 297 non-professional audiences.

Data Analysis

The collected data were analyzed using SPSS for Windows 13.0 and AMOS 7. A two-step approach recommended by Anderson and Gerbing (1988) was used in this study. A confirmatory factor analysis (CFA) with a maximum likelihood was first performed to estimate the measurement model, which determines whether the manifest variables reflected the hypothesized latent variables. Then, the structural model was estimated to examine the causal relationships among the hypothesized constructs.

RESULTS

Respondents' Profiles

Based on the respondent profiles as Table 1 shows, Macao contributing the largest proportion of organizer respondents (44%), followed by Hong Kong and Foshan (17% each). For the public respondent, it demonstrates balanced representation with 45% professional and 55% non-professional audiences. The sample shows strong gender diversity (63% female, 37% male) and age concentration in the 18-35 demographic (68%), indicating active participation from younger, digitally-native audiences. Organizational diversity is evident across enterprise types, with varied exhibition experience levels, ensuring comprehensive perspectives on digital marketing effectiveness across different audience segments.

Table 1 Respondents' Profiles

Organizer Respondents

Region	Organizer Number	Percentage
Macao	8	44%
Guangzhou	1	6%
Shenzhen	2	11%
Foshan	3	17%
Hong Kong	3	17%
Zhuhai	2	11%
Dongguan	1	6%
Zhongshan	2	11%
Total	18	100%

Public Respondents

Category	Option	Number	Percentage
Public Type	Professional Public	240	45%
	Non-professional Public	297	55%
Gender	Male	199	37%
	Female	338	63%
Age	Under 18	4	1%
	18-25	155	29%
	26-35	208	39%
	36-50	139	26%
	Above 50	31	6%
Organization Size	10 people or less	59	11%
	11-50	162	30%
	51-100	120	22%
	101-200	76	14%
	Above 200	70	13%
	Not Applicable	50	9%
Organization Type	State-owned Enterprise	103	19%
	Private Enterprise	178	33%
	Foreign Enterprise	80	15%

Exhibition Experience	Government Agency	73	14%
	Non-profit Organization	24	4%
	Others	79	15%
	First Time	105	20%
	Second Time	182	34%
	Third Time	73	14%
	4-5 Times	97	18%
	6 Times or more	80	15%
	0-2 Years	137	26%
	3-5 Years	138	26%
Work Experience	6-10 Years	108	20%
	Above 10 Years	154	29%

Professional public

The measurement models were checked through CFA to test the composite reliability, convergent validity, and discriminant validity.

Table 2 CFA for the Measurement Mode (n=240)

Constructs and items	Standardize d loadings	Critical Ratio	AVE	CR	Cronbach's alpha	
Customer Engagement (CE)				0.553 0	0.8350	0.803 0
CE1: willing to provide objective personal data to help organizers understand audience characteristics	0.614	-				
CE2: willing to provide feedback based on my visit experience	0.779	9.746***				
CE3: willing to promote this exhibition through personal social media	0.768	9.332***				
CE4: willing to take surveys to provide suggestions for future events	0.799	9.551***				
Customer Interaction (CI)				0.604 8	0.8594	0.858 0
CI1: I pay attention to various information published by this exhibition	0.807	-				

CI2: I like articles, posts, and videos about this exhibition	0.796	13.449***			
CI3: I comment on articles, posts, and videos about this exhibition	0.761	12.397***			
CI4: I share articles, posts, and videos about this exhibition	0.745	12.095***			
Digital Marketing (DM)			0.577 7	0.8854	0.874 0
DM1: promote this exhibition on social media platforms (Weibo, WeChat, TikTok, etc.)	0.712	-			
DM2: publish promotional articles and introductions about this exhibition on websites	0.525	8.020***			
DM3: invite influencers or key opinion leaders to promote this exhibition	0.489	7.400***			
DM4: advertise this exhibition information through browsers or other search channels	0.965	14.789***			
DM5: promote this exhibition information via email	0.938	13.720***			
DM6: customize marketing messages for different customer groups	0.796	11.575***			
Attendee's motivation (AM)			0.578 1	0.809 3	-
AM1: Business need	0.735	-			0.9030
AM2: Social Opportunities	0.840	12.306* **			0.8080
AM3: Information Search	0.760	10.962* **			0.8110
AM4: Market Research	0.689	9.850***			0.8670
AM5: Team building	0.504	4.380***			0.7580

Note. AVE: Average Variance Extracted; CR: Composite Reliability, *** $p \leq 0.001$, ** $p \leq 0.005$, * $p \leq 0.01$

Among professional public, we found that all constructs exceed recommended reliability thresholds, with Composite Reliability (CR) values ranging from 0.8093 to 0.8854 and Cronbach's alpha values between 0.8030 and 0.9030. The standardized factor loadings demonstrate strong relationships between observed variables and their respective constructs, with values ranging from 0.489 to 0.965, and most exceeding the 0.7 threshold. Digital Marketing items show particularly strong loadings, especially for advertising through browsers and email promotion.

Structural Model and Test of Hypotheses

We found out that Digital Marketing demonstrates a significant positive impact on Attendees' Motivation Level, which subsequently shows strong effects on both Customer Engagement and Customer Interaction. This suggests that for professional participants, digital marketing strategies are most effective when they align with and enhance specific business motivations for exhibition attendance.

Table 3 Hypothesis Testing

Paths			Estimate	S.E.	C.R.	P	Hypothesis
Digital Marketing	→	Attendees' motivation level	0.357	0.083	4.303	***	H1a
Attendees' motivation level	→	Customer Engagement	0.671	0.084	7.947	***	H1b
Attendees' motivation level	→	Customer Interaction	0.766	0.093	8.227	***	H1b
Digital Marketing	→	Customer Engagement	-0.004	0.051	-0.083	0.934	H1c
Digital Marketing	→	Customer Interaction	0.004	0.067	0.061	0.951	H1c

Note. SE: standard error; CR: critical ratio. *** $p \leq 0.001$, ** $p \leq 0.005$, * $p \leq 0.01$

Notably, the direct paths from Digital Marketing to both Customer Engagement and Customer Interaction are non-significant, indicating complete mediation through attendee motivation. This finding highlights that professional audiences respond to digital marketing not as passive recipients of promotional content, but as strategic decision-makers whose participation is driven by specific business objectives. The stronger effect of motivation on Customer Interaction ($\beta=0.766$) compared to Customer Engagement ($\beta=0.671$) suggests that when professional attendees are motivated, they are more likely to engage in active behavioral interactions than cognitive engagement.

Paths			Estimates			Bias corrected	
			Indirect Effect	Direct Effect	Total Effect	Lower	Upper
Digital Marketing	→	Attendees' motivation level → Customer Engagement	0.239** *	-0.006	0.235***	0.098	0.466

Digital Marketi ng	→ Attendees' motivation level	→ Custom er Interacti on	0.274** *	0.004	0.278***	0.1 34	0.5 71
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Table 4 Mediation Role Analysis

Note. *** $p \leq 0.001$, ** $p \leq 0.005$, * $p \leq 0.01$

The mediation analysis for professional audiences confirms that Attendees' Motivation Level serves as a complete mediator in the relationship between Digital Marketing and both customer outcomes. For the Digital Marketing → Attendees' Motivation → Customer Engagement pathway, the significant indirect effect ($\beta=0.239$, $p<0.001$) accounts for the entire total effect ($\beta=0.235$, $p<0.001$), while the direct effect remains non-significant ($\beta=-0.004$). Similarly, the Digital Marketing → Attendees' Motivation → Customer Interaction pathway shows a significant indirect effect ($\beta=0.274$, $p<0.001$) comprising the total effect ($\beta=0.278$, $p<0.001$), with no significant direct effect ($\beta=0.004$). The bias-corrected confidence intervals confirm the statistical significance of both complete mediation effects, with the Customer Interaction pathway showing a slightly stronger indirect effect.

Moderation Role Analysis

The moderation analysis for professional audiences reveals a significant interaction effect between Digital Marketing and Exhibition Type on Attendees' Motivation. The analysis demonstrates distinctly different patterns for trade shows versus public shows, with trade shows showing a much stronger positive relationship between digital marketing and attendee motivation compared to public shows. At higher levels of digital marketing intensity, trade shows achieve substantially higher motivation levels compared to public shows, indicating that professional attendees are significantly more responsive to digital marketing efforts in trade show contexts.

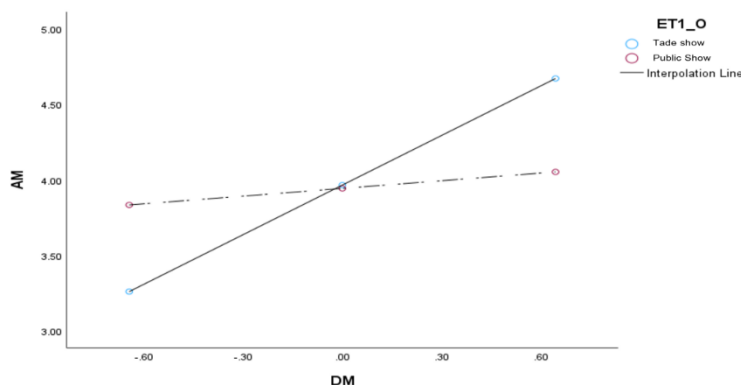


Figure 2 The moderation analysis of professional public

Non-professional public

CFA The measurement models were checked through CFA to test the composite reliability, convergent validity, and discriminant validity.

Table 5 CFA for the Measurement Mode (n=297)

Constructs and items	Standardized loadings	Critical Ratio	AVE	CR	Cronbach's alpha
Customer Engagement (CE)			0.5554	0.8319	0.8350
CE1: I am willing to provide objective personal data to help organizers understand audience characteristics	0.623	-			
CE2: I am willing to provide feedback based on my visit experience	0.745	10.669**			
CE3: I am willing to promote this exhibition through my personal social media	0.791	10.563**			
CE4: I am willing to take surveys to provide suggestions for future events	0.808	10.517**			
Customer Interaction (CI)			0.6594	0.8853	0.8850
CI1: I pay attention to various information published by this exhibition	0.744	-			
CI2: I like articles, posts, and videos about this exhibition	0.782	13.878**			
CI3: I comment on articles, posts, and videos about this exhibition	0.846	14.539**			
CI4: I share articles, posts, and videos about this exhibition	0.87	14.895**			
Digital Marketing (DM)			0.5144	0.8552	0.8420
DM1: You promote this exhibition on social media platforms (Weibo, WeChat, TikTok, etc.)	0.501	-			
DM2: You publish promotional articles and introductions about this exhibition on websites	0.476	6.701***			
DM3: You invite influencers or key opinion leaders to promote this exhibition	0.544	7.04***			

DM4: You advertise this exhibition information through browsers or other search channels	0.885	9.168***			
DM5: You promote this exhibition information via email	0.949	9.422***			
DM6: You customize marketing messages for different customer groups	0.793	8.673***			
Customer Susceptibility (CS)			0.658 7	0.885 3	0.8840
CS1: I tell others that I use social networks to get information about this exhibition	0.809	-			
CS2: I follow user comments about this exhibition on social networks	0.811	16.238* **			
CS3: I post thoughts and comments about this exhibition on social networks	0.829	16.217* **			
CS4: I publish articles or detailed reviews about this exhibition online	0.797	15.326* **			
Brand Image (BI)			0.639 3	0.876 2	0.8750
BI1: I recognize certain brands' products and services in this exhibition	0.739	-			
BI2: I believe this exhibition is different from others and has distinctive features	0.837	14.314* **			
BI3: I believe this exhibition is meaningful	0.813	13.351* **			
BI4: I believe certain brands in this exhibition have good reputation	0.806	13.231* **			

Note. AVE: Average Variance Extracted; CR: Composite Reliability, *** $p \leq 0.001$, ** $p \leq 0.005$, * $p \leq 0.01$

We found that All constructs exceed the recommended thresholds for reliability and validity, with Composite Reliability (CR) values ranging from 0.8319 to 0.8762 and Cronbach's alpha values between 0.8350 and 0.8840, indicating internal consistency. The Average Variance Extracted (AVE) values range from 0.5144 to 0.6594, all surpassing the 0.5 threshold, confirming adequate convergent validity for each construct. The standardized factor loadings across all measurement items are substantial, ranging from 0.476 to 0.949, with the

majority exceeding 0.7, indicating strong relationships between observed variables and their respective latent constructs.

Structural Model and Test of Hypotheses

Table 6 Hypothesis Testing

Paths			Estimates	S.E.	C.R.	P	Hypothesis
Digital Marketing	→	Brand Image	0.255	0.067	3.809	***	H2a
Brand Image	→	Customer Engagement	0.300	0.063	4.775	***	H2b
Brand Image	→	Customer Interaction	0.161	0.054	3.011	0.003*	H2b
Digital Marketing	→	Customer Engagement	0.154	0.049	3.162	0.002*	H2c
Digital Marketing	→	Customer Interaction	0.025	0.042	0.605	0.545	H2c

Note. SE: standard error; CR: critical ratio. *** $p \leq 0.001$, ** $p \leq 0.005$, * $p \leq 0.01$

The structural equation modeling results demonstrate strong support for most hypothesized relationships in the exhibition marketing framework. Seven out of eight proposed paths show statistical significance, with Customer Susceptibility emerging as the most influential predictor, showing strong positive effects on Customer Interaction ($\beta=0.747$, $p<0.001$) and Customer Engagement ($\beta=0.455$, $p<0.001$). Digital Marketing exhibits significant positive impacts on Brand Image ($\beta=0.255$, $p<0.001$) and Customer Engagement ($\beta=0.154$, $p<0.01$), while Brand Image significantly influences both Customer Engagement ($\beta=0.300$, $p<0.001$) and Customer Interaction ($\beta=0.161$, $p<0.01$).

The only non-significant relationship identified is the direct path from Digital Marketing to Customer Interaction ($\beta=0.025$, $p=0.545$), suggesting that digital marketing strategies may influence customer interaction primarily through mediating mechanisms rather than direct effects.

Table 7 Mediation Role Analysis

Paths			Estimates			Bias-corrected	
			Indirect Effect	Direct Effect	Total Effect	Lower	Upper
Digital Marketing	→	Brand Image → Customer Engagement	0.076***	0.154***	0.230**	0.027	0.158

Digital Marketing	→	Brand Image	→	Customer Interaction	0.041**	0.025	0.066*	0.012	0.091
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Note. *** $p \leq 0.001$, ** $p \leq 0.005$, * $p \leq 0.01$

The mediation analysis reveals that Brand Image plays a significant mediating role in the relationship between Digital Marketing and customer outcomes. For the Digital Marketing → Brand Image → Customer Engagement pathway, the indirect effect ($\beta=0.076$, $p<0.001$) accounts for approximately 33% of the total effect ($\beta=0.230$), indicating partial mediation. This suggests that digital marketing strategies enhance customer engagement both directly and indirectly through improved brand image perceptions.

In contrast, the mediation effect of Brand Image in the Digital Marketing → Customer Interaction relationship shows a different pattern. While the indirect effect is statistically significant ($\beta=0.041$, $p<0.01$), the direct effect remains non-significant ($\beta=0.025$), and the total effect is significant ($\beta=0.066$). This indicates that Brand Image serves as a complete mediator in this relationship, suggesting that digital marketing influences customer interaction primarily through its impact on brand image rather than through direct mechanisms.

Moderation Role Analysis

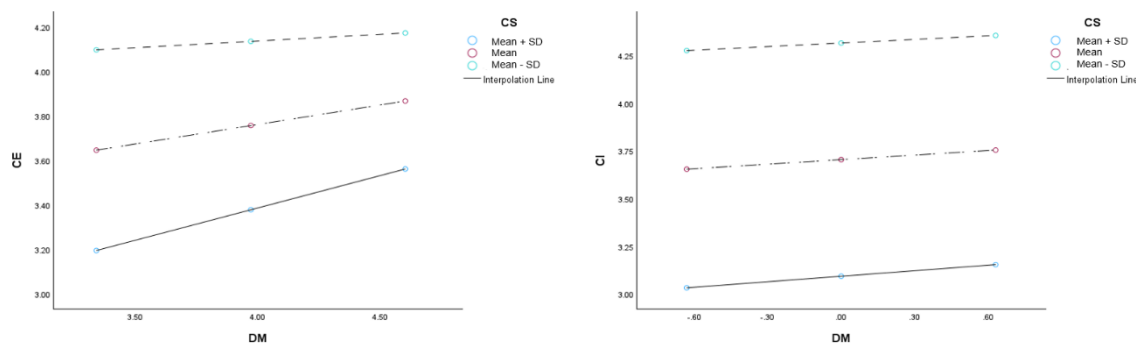


Figure 3 The moderation analysis of non-professional public

The moderation analysis reveals distinct patterns in how Customer Susceptibility (CS) influences the relationship between Digital Marketing (DM) and customer outcomes. In the left panel examining Customer Engagement (CE), the analysis shows clear moderation effects across different levels of customer susceptibility. At high levels of CS, the relationship between digital marketing and customer engagement is strongest, with the steepest slope indicating that susceptible customers respond more positively to digital marketing efforts. Conversely, at low CS levels (2.91), the relationship is weaker but still positive, suggesting that digital marketing effectiveness varies significantly based on customer receptiveness.

The right panel analyzing Customer Interaction (CI) demonstrates a different moderation pattern, with relatively flat slopes across all CS levels (-0.83, 0.00, 0.83). This indicates that customer susceptibility has minimal moderating influence on the digital marketing-customer interaction relationship, with consistently weak effects regardless of susceptibility levels. The parallel lines suggest that digital marketing's impact on customer interaction remains relatively stable across different customer segments, contrasting sharply with the engagement outcomes.

CONCLUSION AND IMPLICATIONS

This study provides comprehensive evidence that digital marketing strategies significantly enhance exhibition participation intention, with distinct mechanisms for different audience types. For professional participants, digital marketing operates exclusively through attendee motivation as a complete mediator, with stronger effects in trade shows than public exhibitions. Professional audiences respond strategically rather than passively, filtering digital marketing through their business objectives before engaging. For non-professional audiences, digital marketing works through both direct effects on customer engagement and indirect pathways via brand image enhancement, with customer susceptibility moderating these relationships. The research resolves existing literature gaps by establishing audience-specific frameworks and clarifying the underlying mechanisms driving exhibition participation in the Guangdong-Hong Kong-Macao Greater Bay Area.

Theoretically, this research establishes a digital marketing framework for the MICE industry and reveals differential impacts across audience types, extending exhibition marketing theory through the decomposition of participation intention into cognitive and behavioral dimensions. Practically, the findings guide exhibition organizers to implement motivation-driven strategies for professional audiences and brand-focused approaches for non-professional participants, while considering marketing sensitivity as a key segmentation criterion. The source separation methodology provides a robust framework for future exhibition research, while the insights support digital transformation strategies that enhance regional exhibition competitiveness in technology-driven markets.

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THE SOCIAL PRESENCE OF ARTIFICIAL INTELLIGENCE IN THE MICE INDUSTRY: CONCEPTUALIZATION, SCALE DEVELOPMENT, AND VALIDATION

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INTRODUCTION

As reported by Grand View Research, the global market for meetings, incentives, conferences, and exhibitions (MICE) was estimated to be valued at around \$80.59 billion in 2023. Furthermore, it is anticipated to experience a compound annual growth rate (CAGR) of 9.1% from 2024 to 2030. MICE represents a segment of the tourism industry where individuals travel for business purposes, encompassing meetings, incentives, conferences, and exhibitions (Anas et al., 2020). In China alone, a total of 3,923 economic and trade exhibitions were held in 2023, covering a total exhibition area of 141 million square meters (CCPIT, 2023).

The industry is currently experiencing rapid social and technological transformations; as advancements in technology become increasingly diverse, the pace of change within the sector accelerates. A growing array of new technological products is being implemented to cater to more discerning consumers (Magdy & Abouelazm, 2024). Among these innovations, artificial intelligence (AI) technology has seen particularly active application. There exists a broad consensus globally regarding AI's potential impact on the entire industry; indeed, approximately 90% of companies acknowledge this influence (Hattendorf & Druart, 2022). Concurrently with the swift advancement of computer technology, artificial intelligence not only exhibits an increasing generative capacity but also gradually develops sophisticated emotional intelligence. This evolution enables AI systems to engage in more complex emotional communications with humans (Weng et al., 2025; van Doorn et al., 2017). Social presence is a classic and mainstream topic in human-computer relationship research, which shows that presence of social factors exerts a considerable influence on human-computer relationship in cognition, emotion, behavior and other attitude levels (Weng et al, 2025). Yoganathan et al. (2021) indicated that a high level of social presence can bring favorable responses from consumers. When consumers perceive warmth and competence in human-computer interactions, their expectations for service quality are enhanced. Additionally, Pitardi and Marriott (2021) also demonstrate that social presence helps establish trust between customers and AI. Their findings indicate that human-computer interactions can elicit a perception of social presence among users, fostering a more trusting relationship with AI. These results suggest that social presence is an essential factor in cultivating trust in artificial intelligence.

Despite the widespread application of AI technologies, there remains limited theoretical exploration concerning the social presence experienced by visitors within the MICE industry. Currently, research on social presence predominantly spans several fields including online classrooms (Tu & McIsaac, 2002), distance education (Kim et al., 2011; Sung & Mayer, 2012), consumer services (Yoganathan et al., 2021; Flavian et al., 2024), virtual reality (Bulu, 2011), AI chatbots (Jin & Youn, 2022), among others. However, it remains uncertain whether these findings are applicable to the MICE industry due to the varying connotations associated with social presence across different contexts. For instance, contemporary interactions and business connections among stakeholders extend beyond individual regions to encompass national and global dimensions (Smagina, 2017). In this regard, AI applications within the MICE sector must engage with business players from diverse countries and regions.

Compared to other industries, the operational environment for AI in the MICE industry presents greater complexity.

Therefore, The objective of this research is to : (1) explore the social presence of human-AI Interaction in the MICE industry, and clarify the connotation and structural dimension of social presence; (2) Develop a scale for measuring social presence in human-AI Interaction.

LITERATURE REVIEW

The conceptual connotation of social presence

The concept of social presence has its roots in the research conducted by Mehrabian and Wiener (1967), which examined the notion of immediacy, as well as in the work of Argyle and Dean (1965), who explored the idea of intimacy. Regarding the conceptualization of social presence, there is no unified concept, and there are Various conceptualizations of social presence exist in different environments. For example, Rice (1993), when studying media appropriateness, characterized social presence as the extent to which two individuals are cognizant of one another during an interaction, as well as the level of recognition they have regarding the nature of their interpersonal relationship. Biocca & Harms (2002), in their study of network mind theory, defined social presence as the perception of being in the company of others · which includes immediate awareness, and accessibility to the mental, emotional, and intentional states of others. Sung and Mayer (2012) in the context of distance e-learning, defining it as the subjective experience of engaging in communication with others via computer-mediated platforms. When it comes to the interaction between humans and artificial intelligence, social presence is regarded as a psychological state in which virtual entities are considered real in both sensory and non-sensory aspects (Lee, 2004). van Doorn et al.(2017) introduced the concept of Automated Social Presence (ASP) in 2017, which refers to the extent to which a technology enables users to perceive the existence of another social entity. Based on these definitions of social presence, This research define the social presence of human-AI Interaction in the MICE industry as: making participants feel human-like emotional (psychological) and physiological experiences in the process of human-AI Interaction.

Relevant studies of social presence

Current scholarly investigations concerning social presence in human-AI Interaction mainly revolves around the application of artificial intelligence within the educational sector, as well as its implications at the societal level. In the domain of education, the research on social presence in human-AI Interaction is mainly regarding the impact of social presence on the perceived credibility of AI lecturers (Kim et al., 2022) and the impact of social presence on students' attitude towards AI teachers (Kim et al., 2021; H. Huang & Chang, 2024). Kim et al. (2022) found that AI teachers with human-like voices were more trustworthy to students than those with robotized voices. Wang et al. (2025) aims to augment students' perception of social presence in the learning through the function of generative artificial intelligence, with the purpose of reducing the lack of feedback and support during students' learning and making students more adaptable to the current learning environment.

At the social level, the social presence in human-AI Interaction is mostly applied to consumers. For example, Flavian et al. (2024) alleviates consumers' psychological tension in the face of artificial intelligence by providing artificial intelligence with a higher perception of automated social presence. Lu et al. (2015) found in his research that consumers' trust in brands and purchase intention can be enhanced by improving their sense of social presence In the digital landscape.

The research on measuring social presence also focuses on the above two aspects. Kim (2010) developed a strategic tool for the role of social presence in distance higher education while studying the composition of social presence in distance higher education. Social presence was measured in 19 items across four dimensions: mutual attention and support, emotional connection, sense of community, and open communication. Alsayer and Lowenthal (2024) measure social presence in e-learning using a framework that includes three dimensions: emotional expression, open/interactive communication, and group cohesion. When measuring the social presence of e-learning, Norz et al. (2022) proposed a scale with four dimensions, including the size, constraints, number of active forums and number of solved learning activities of individual egocentric students to measure social presence.

At the social level, about consumer services. van Doorn et al. (2017) proposed a scale of three-dimensional space, including customer relationship orientation, anthropomorphic tendency and technological readiness, in the study of automated social presence and consumer experience. However, in general, the present study results lack the study on the social presence of human-AI Interaction in the MICE industry environment. Although some scholars have done a scale on social presence in Internet socialization. For example, Biocca & Harms (2002) conceptualized and measured social presence across three dimensions: Perceptual, Perceptual and Intersubjective. They developed a more robust multi-dimensional measure of social presence. However, it aims at today's more responsible human-AI Interaction environment, and makes the scale more in line with the use scenario of MICE industry. This paper presents the development of a scale designed to assess the social presence of human-AI Interaction in the MICE industry.

Social presence in human-AI Interaction

In the process of understanding human-AI interaction, social presence plays a vital role in effective interaction experiences (Kim et al., 2022). Numerous studies have demonstrated that social presence significantly affects human-machine relationships in terms of attitudes, including cognition, emotion, and behavior (Cheng & Jiang, 2020b). With the continuous development of technology, human-machine interaction has evolved from the early human-computer interaction (HCI) to human-robot interaction (HRI) and then to the current human-AI interaction (HAI) (Weng et al., 2025). In these three stages, machines have become increasingly similar to humans in both appearance and intelligence levels.

In HCI, human-computer interaction mainly involves using systems and programming to input commands for interaction, such as work in operation interfaces for help and guidance, as well as computer-supported collaborative work (Carroll, 1997; Myers, 1998). In the early stages of Human-Computer Interaction (HCI), general-purpose technologies were widely used, such as word processors and spreadsheet applications. Windows-based graphical user interfaces, as well as general-purpose techniques like single-level structures, direct manipulation, and demonstrational programming, were also commonly employed (Carroll, 1997).

When entering the HRI stage, technological advancements have allowed robots to have some degree of autonomy, providing basic robotic capabilities and some cognitive reasoning abilities for complex and sustained interactions with humans (Goodrich & Schultz, 2007). According to Sheridan (2016), HRI is primarily applied in four areas: 1. Handling parts on the manufacturing line, transporting mail, pharmaceuticals, and other packages through computer-automated processes. 2. Performing tasks in hazardous environments controlled by operators. 3. Manned autonomous transportation (including highways, railways, and aircraft). 4. Human-robot social interaction (including providing entertainment, education, and assistance for the elderly, children, and people with disabilities).

With the advent of HAI, artificial intelligence has the capability of autonomous systems to independently perform specific tasks. They can exhibit unique behaviors and have already replicated human abilities, such as creativity, autonomous learning, or voice applications, enabling deeper interactions with humans (Xu et al., 2024; Wienrich & Latoschik, 2021; Weng et al., 2024).

METHODOLOGY

The human-AI Interaction society in the MICE industry is divided into dimensions

In this study, academic databases such as Web of Science, Science Direct, and Google Scholar were utilized to search the literature related to measuring social presence, and 224 relevant articles were searched. After screening, 12 literatures meeting the requirements were finally obtained.

This paper summarizes the connotation of social presence in human-AI Interaction by reading and combining relevant literature. Liao et al. (2024), in the process of developing the automated social presence scale in artificial intelligence services, a 22-item scale composed of five dimensions of social affability, empathy, responsiveness, communication versatility and competence was developed. Chen et al. (2023) constructed a theoretical model of social presence in robotics and developed a corresponding five-dimension, 17-item measurement scale, including the presence, attention distribution, interactive expression and information understanding, perceived emotional interdependence, and interaction behaviour perception. Alsayer and Lowenthal (2024) divided The assessment of social presence in online learning into three dimensions: affective expression, open communication and group cohesion. Biocca et al. (2001) believes that social existence can be measured through three dimensions: co-presence, Subjective level and Intersubjective level. Kort et al. (2007) measured social presence in games by dividing it into 21 items in three dimensions: Empathy, Negative feelings and Behavioural involvement. Sung and Mayer (2012) divided it into five dimensions, social respect, social sharing, open mind, social identity, and intimacy, and measured 19 items.

Based on a comprehensive review of the aforementioned literature and the summary of the connotation of human-AI Interaction society in the MICE industry, and on the basis of discussion with relevant experts, this research believes that the presence of human-AI Interaction society in the MICE industry should include five dimensions: Perceived of presence , Competence in MICE industry , perception of emotion, Communication versatility and Perception of anthropomorphism.

Initial scale questionnaire item preparation

In order to ensure that the dimensions can be effectively identified, this study first revises and standardizes the existing measurement items to make them conform to the research topic and the local context. Referring mainly to the research of Fabrigar & Wegener (2012), the measurement items are set to be three to five times the number of structural dimensions. The dimension of Perceived Presence was primarily referring to the research conducted by Chen et al. (2023) and Moussawi & Koufari (2019). For the perception of empathy, the examination of Liao et al. (2024) and Chen et al. (2023) are referred to. The communication versatility and information expressiveness refer to the research of Alsayer and Lowenthal (2024) and Liao et al. (2024). The dimension of Competence in the MICE industry was primarily referring to the research conducted by Liao et al. (2024) and adapted to align with the context of the MICE industry and the measurement parameters are improved for the application scenarios in the MICE industry. The perception of anthropomorphism are preliminarily formulated informed by the findings of Biocca et al. (2001) and Weng et al. (2024).

Our conceptual integration has generated a multidimensional construct of social presence, including Perceived Presence, Competence in the MICE industry, Perception of Emotion, Communication Versatility, and Perception of Anthropomorphism. To assess this construct, this study adheres to recent scale development examples (Scheaf et al., 2020; Liao et al., 2024) and adopted a three-phase procedure for the development and evaluation of the measurement instrument.

First, this study developed an item pool and adapted the collected measurement items to fit the context of HCI in the MICE industry. Specifically, the items measuring artificial intelligence (AI) capability, such as "Artificial intelligence is experienced," "Artificial intelligence understands me very well," and "Artificial intelligence can find and process the information needed to complete the task," were adapted to fit the context of the MICE industry.

Second, the preliminary scale was refined through expert consultation. The wording and expression of the items were revised to conform to linguistic standards. The consultation involved MICE industry experts, graduate students, and professionals with industry work experience to guarantee the precision and suitability of the items. Based on the suggestions from industry experts, the original five-point Likert scale was optimized to a seven-point Likert scale. This change allows respondents to express their views more precisely, thereby enhancing the validity and reliability of the measurement scale. A pre-survey questionnaire was distributed to graduate students in relevant fields, and the wording of the questionnaire was modified according to their feedback. For example, the item "Artificial intelligence makes me feel that it has a personality" was revised to "When talking with artificial intelligence, I feel that it has a personality." Additionally, some ambiguously worded questions were also revised.

Finally, after five rounds of consultation, the items within each dimension were revised and confirmed to guarantee the content validity of the scale items. As a result, this study developed an initial measurement item pool consisting of 28 items, including 9 items for Perceived Presence, 5 items for Competence in the MICE Industry, 3 items for Perception of Empathy, 5 items for Communication Versatility, and 6 items for Perception of Anthropomorphism. A 7-point Likert scale was constructed, offering response options that span from 1 (Strongly Disagree) to 7 (Strongly Agree), to capture the sense of social presence when using artificial intelligence in the MICE industry. Table 1 presents all the measurement items.

Table 1 Initial project set

Dimension	Item	Statement
Perceived of presence	PP1	During interactions with artificial intelligence, I easily notice its presence.
	PP2	For me, the social presence of artificial intelligence is quite obvious.
	PP3	I believe that artificial intelligence attracts my attention when I interact v
	PP4	I believe that when we interact with artificial intelligence, we coexist in the same space at that moment.
	PP5	I can communicate with artificial intelligence anytime.
	PP6	I can communicate with artificial intelligence anywhere.
	PP7	Communicating with artificial intelligence gives me a sense of social interaction.
	PP8	I feel that artificial intelligence is friendly to me.
Competence in the MICE Industry	CI1	Artificial intelligence can understand my specific needs.

Perception of Empathy	CI2	When needed for work, artificial intelligence can always find suitable MICE (Meetings, Incentives, Conferences, Exhibitions, and Events) activities for me.
	CI3	After using artificial intelligence, I believe it has a good understanding of the MICE industry.
	CI4	Overall, I think artificial intelligence is very experienced in the MICE industry.
	PE1	I think artificial intelligence affects my feelings during our interactions.
	PE2	The emotions of artificial intelligence can affect our emotional state during interactions.
	PE3	The attitude of artificial intelligence during interactions can influence my feelings.
Communication Versatility	CV1	I think artificial intelligence can correctly understand my thoughts.
	CV2	I can express my thoughts to artificial intelligence in various ways.
	CV3	I can express my thoughts to artificial intelligence in different languages (such as English).
	CV4	I can express my thoughts to artificial intelligence in non-verbal forms.
	CV5	For the questions I ask, artificial intelligence will provide me with answers.
Perception of Anthropomorphism	PA1	Artificial intelligence can communicate like a human.
	PA2	Artificial intelligence can have human-like emotions (such as happiness, friendliness, care, and frustration).
	PA3	When talking with artificial intelligence, I feel that it has a personality.
	PA4	Artificial intelligence makes me feel a sense of human warmth.
	PA5	Artificial intelligence can find and process the information needed to complete tasks.
	PA6	Artificial intelligence can provide me with useful answers.

A total of 362 questionnaires were disseminated to individuals working in the hotel, tourism, and event management industries through an online survey, and 300 valid responses were obtained. Among the respondents, there were 107 males and 193 females. The specific data are shown in Table 2.

Table 2 Demographic characteristics of the respondents

Characteristic	Item	Frequency	Percentage
Gender	Male	107	35.67%
	Female	193	64.33%
Age (years)	16–25	91	30.33%
	26–35	143	47.67%
	36–45	48	16.00%
	46–55	12	4.00%
	≥56	6	2.00%
Education	High school or below	7	2.33%
	Associate	35	11.67%

Bachelor	206	68.67%
Master	42	14.00%
Doctor or above	10	3.33%

Scale Purification and Refinement

Firstly, the Critical Ratio (CR) method was employed to divide the respondents into high and low groups based on the upper and lower 27% of the total scores. The mean differences in scores for each measurement item between the two groups were tested for significance. When the CR value reaches a significant effect and is greater than 3, it suggests that the measurement item possesses a certain level of discriminative ability. In this study, all item CR values reached the significance level and were greater than 3, indicating that there were no items requiring deletion.

Secondly, item-to-total correlation method was employed to compute the correlation coefficients between each individual item and the overall score. Items exhibiting an item-to-total correlation of less than 0.30 were excluded from the analysis. The correlation coefficients between each individual item and the overall score varied from 0.409 to 0.730, all greater than 0.30, and were significant at the 0.01 level, indicating an ideal level of correlation. Therefore, no items needed to be deleted (Liao et al., 2024).

Thirdly, reliability of the questionnaire was assessed using Cronbach's α coefficient, with a coefficient value greater than 0.7 being the minimum acceptable standard (Liao et al., 2024; Hair et al., 2013). Furthermore, items were evaluated using the corrected item-total correlation (CITC) and the Cronbach's α value that would result if the item were excluded (CAID). Items exhibiting a CITC coefficient below 0.4, in conjunction with a CAID coefficient of the dimension should be deleted from the indicator set (Sharma, 2010). In this study, SPSS 27 was used to conduct the reliability analysis of the preliminary scale. According to Table 3, the overall reliability of the preliminary scale was accepted. Item PA6 met the deletion criteria, as it had a low correlation with its dimension and the reliability of the remaining items in the dimension was significantly improved after its deletion.

Finally, the remaining 25 items underwent analysis through the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity. The KMO value was 0.919, and the Bartlett's test of sphericity reached a significance level of 0.001, indicating that the original data were suitable for factor analysis. Principal component analysis was conducted using SPSS 27, extracting factors with eigenvalues greater than 1. The factor loadings were rotated using the varimax method to obtain the factor loading matrix. Items with communality less than 0.2 and factor loadings less than 0.4 were considered to have weak relationships with the common factors and were deleted (Liao et al., 2024). Items PP1 and PP2 were deleted, leaving 23 items.

EFA results

In this study, exploratory factor analysis was performed on the preliminary scale utilizing principal component analysis along with oblique rotation, with the extraction of factors based on eigenvalues exceeding 1. Items were sequentially deleted based on the following criteria: 1. Items exhibiting factor loadings below the established minimum threshold of 0.4 on all factors were deleted; 2. Items exhibiting factor loadings exceeding 0.4 on two or more factors (Meng & Liu, 2022) and with differences less than 0.2 were deleted; 3. Factors containing fewer than three items were excluded from the analysis; 4. Items that did not align with the intended meaning of their corresponding factors were removed from the analysis.

Table 3 CITC、CAID and Cronbach's alpha

Dimension	Item	CITC	CAID	Cronbach's alpha
Perceived of presence	PP1	0.361	0.759	0.786
	PP2	0.396	0.754	
	PP3	0.448	0.746	
	PP4	0.513	0.735	
	PP5	0.522	0.732	
	PP6	0.495	0.739	
	PP7	0.543	0.728	
	PP8	0.464	0.743	
Competence in MICE industry	CI1	0.571	0.779	0.805
	CI2	0.552	0.784	
	CI3	0.656	0.734	
	CI4	0.700	0.715	
perception of empathy	PE1	0.696	0.776	0.837
	PE2	0.692	0.780	
	PE3	0.707	0.764	
Communication versatility	CV1	0.544	0.640	0.713
	CV2	0.525	0.644	
	CV3	0.420	0.685	
	CV4	0.473	0.683	
	CV5	0.466	0.676	
Perception of anthropomorphism	PA1	0.632	0.784	0.830
	PA2	0.696	0.771	
	PA3	0.682	0.772	
	PA4	0.698	0.768	
	PA5	0.470	0.817	
	PA6	0.386	0.830	

In each iteration, only one item was deleted before starting a new round of factor analysis, until the optimal factor structure was achieved. After deleting seven items, including PP3, four factors were ultimately extracted, comprising 16 items. The cumulative variance contribution rate was 65.665%, exceeding the criterion of 40% (Meng & Liu, 2022), indicating that the selected factors captured a substantial amount of information from the original data. In the rotated structure matrix, the factor loadings of all items ranged from 0.624 to 0.887, all exceeding the minimum required value of 0.4. The specific details are shown in Table 4 and Table5.

Table 4 EFA results

Item	Factor loadings			
	F1	F2	F3	F4
CI1	0.719			
CI2	0.707			
CI3	0.823			
CI4	0.809			
CV5	0.715			
PA5	0.666			
PA1		0.743		
PA2		0.887		
PA3		0.807		
PA4		0.836		
PE1			0.870	
PE2			0.847	
PE3			0.871	
PP5				0.883
PP6				0.864
CV3				0.624

Factor 1 comprises six items that reflect the capability of artificial intelligence in the MICE industry, or more specifically, its ability to meet the needs of practitioners in this industry. It is therefore named “AI Competence in MICE Industry.”

Factor 2 includes four items that reflect the level of anthropomorphism perceived by participants in relation to artificial intelligence. This factor is named “Human-like Interaction of AI.”

Factor 3 consists of three items that reflect the emotional connection established between users and artificial intelligence during human-machine interactions. This factor indicates an enhanced perception of warmth and empathy, leading to a deeper emotional bond. It is named “AI Emotional Influence.”

Factor 4 contains three items that reflect the ability of users to communicate with artificial intelligence in multiple languages, at any time and in any place. This factor is named “AI Communication Accessibility.”

These four factors, comprising 16 items, constitute the revised scale. Compared with the initial scale developed based on literature review, the revised scale has eliminated the dimension of “Perceived presence.”

Table 5 The final four-dimensional social presence scale with 16 items

Dimension	Item	Factor loadings
AI Competence in MICE Industry	CI1	Artificial intelligence can understand my specific needs.
	CI2	When needed for work, artificial intelligence can always find suitable MICE (Meetings, Incentives, Conferences, Exhibitions, and Events) activities for me.

	CI3	After using artificial intelligence, I believe it has a good understanding of the MICE industry.
	CI4	Overall, I think artificial intelligence is very experienced in the MICE industry.
	CV 5	For the questions I ask, artificial intelligence will provide me with answers.
	PA5	Artificial intelligence can find and process the information needed to complete tasks.
Human-like Interaction of AI	PA1	Artificial intelligence can communicate like a human.
	PA2	Artificial intelligence can have human-like emotions (such as happiness, friendliness, care, and frustration).
	PA3	When talking with artificial intelligence, I feel that it has a personality.
	PA4	Artificial intelligence makes me feel a sense of human warmth.
AI Emotional Influence	PE1	I think artificial intelligence affects my feelings during our interactions.
	PE2	The emotions of artificial intelligence can affect our emotional state during interactions.
	PE3	The attitude of artificial intelligence during interactions can influence my feelings.
	PP5	I can communicate with artificial intelligence anytime.
AI Communication Accessibility	PP6	I can communicate with artificial intelligence anywhere.
	CV 3	I can express my thoughts to artificial intelligence in different languages (such as English).

DISCUSSIONS

With the advent of advanced AI systems such as DeepSeek and GPT-4, these technologies are expected to significantly advance the digital transformation of the MICE industry. Both event participants and organizers are increasingly interacting with AI in various contexts. How to design, develop, and utilize AI that better meets the needs of the MICE industry, and how to gather participant feedback and insights through data, are currently key issues.

This study first reviewed past research on social presence, conceptualized the social presence brought by AI in the MICE industry, and devised a metric to assess it. The instrument has exhibited strong internal consistency and has successfully undergone multiple assessments of reliability, as well as evaluations of convergent and discriminant validity. As disruptive AI continues to emerge, the MICE industry will increasingly rely on AI to serve participants. Refining our comprehension of how to enhance the service experience of AI for participants in the MICE industry and making adjustments accordingly is crucial for the industry.

Theoretical contributions

The theoretical contributions of this study are twofold. First, by exploring the characteristics of social presence and reviewing prior research, this study proposes and conceptualizes social presence in human–AI interactions within the MICE industry from this perspective. This establishes a solid foundation for future research and enhances the body of work on human–AI interactions.

Second, a multidimensional scale of social presence is developed to assess the service experience of participants using AI in the MICE industry, thereby enriching research on AI services and human–AI interactions. Jang and Choi (2022) used social presence to study the

video-conferencing fatigue of MICE participants. However, previous research on social presence in the MICE context did not develop an effective scale. Through rigorous scale development procedures, this study has obtained a four-dimensional social presence scale that includes AI Competence in the MICE Industry, Human-like Interaction of AI, AI Emotional Influence, and AI Communication Accessibility. This provides a more comprehensive multidimensional structure for AI and human-machine interactions in the MICE industry, enriching research in this domain.

Practical significance

Event organizers in the MICE industry can use the social presence scale to assess the AI experience of MICE participants. By employing this scale, organizers can track the performance of AI in the MICE industry in terms of AI Competence, Human-like Interaction, Emotional Influence, and Communication Accessibility. This allows them to identify and adopt AI solutions that better meet their needs. Organizers can then continue to utilize the AI that performs well.

Limitations and future research directions

This research identifies certain constraints and offers recommendations for subsequent investigations. Primarily, the sample size is restricted. Owing to limitations in resources, our data collection was confined to the context of China, resulting in an absence of global data. Future research could further expand the scope of the survey to enhance the generalizability of the data. Second, there are limitations in the theoretical foundation of social presence development. Given the severe lack of research on social presence in the MICE industry, this study developed a scale based on the similar structures of social presence in other industries for the purposes of conceptualization and the development of measurement scales. Therefore, future research could explore the conceptualization of social presence based on other theories to further enrich the studies on AI services and human-AI interactions.

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NEGOTIATING INTANGIBLE HERITAGE: TRADITIONS, COMMUNITY, AND THE CATHOLIC PROCESSIONS IN MACAO

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INTRODUCTION

Macao's Catholic events: Procession of the Passion of Our Lord and Procession of the Dead Lord, are two major religion ceremonies and cultural events. Both has long history and are deeply rooted within local communities. As Turner (1969) argues, rituals and festivals serve as symbolic performances where communities reaffirm their collective memory, values, and social bonds. Religious rituals not only reinforce collective memory and identity but also serve as vital practices for sustaining community cohesion in the face of social changes (Ammerman, 2020). This event dates back to 1587 in Lisbon, and later spread to other places with close ties to Portugal, such as Brazil and Macao. In Macao, the tradition can be traced back to 1708 (Cultural Affairs Bureau of Macao, 2025). Within Catholic narrative, these two events together represent the process of Christ's passion and burial, a sacred season known as Lent in the Catholic calendar. Although these are weeks apart, the two events are seen as a whole Catholic ritual practice during Lent.

The two events were added to Macao's Intangible Cultural Heritage (ICH) list in 2017 and 2020 respectively. In the discourse of cultural and tourism departments, these events are the testimonies of Macao's east and west interaction and multicultural identity. Authorised Heritage Discourse (AHD) is a critical perspective on heritage studies that was developed in 2006 by Laurajane Smith, who suggests that in the process of defining and interpreting heritage, the official and elites tend to dominate the process, often ignoring the understandings and emotional connection of the community and the ordinary people. This paper finds that the Catholic community in Macao presents a distinctive approach to heritage narration compared to other cultural festivals or events, contributing positively but from different perspectives.

These two Catholic processions offer an exciting case for exploring the cultural negotiation in practice. Rooted in deep religious traditions, shaped by Macao's unique history, layered community structures, and the growing influence of tourism development and authorised heritage discourse, this presents fertile ground for research and a unique case study, drawing from cultural anthropology, sociology and tourism studies.

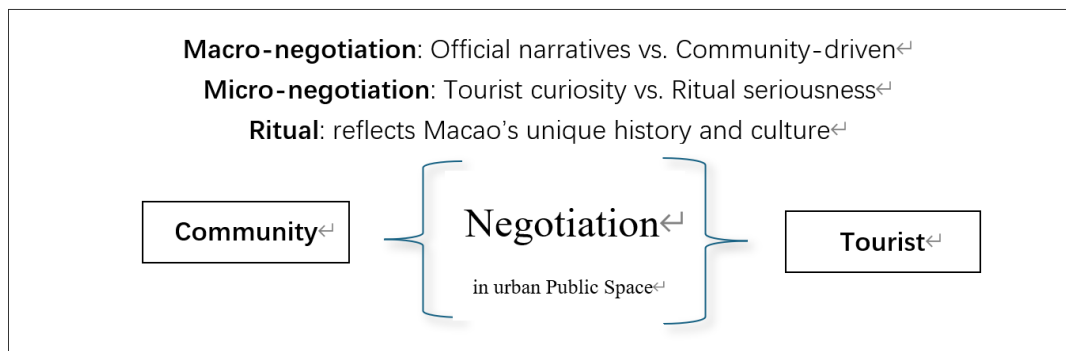


Fig.3 Conceptual framework of ritual negotiation between community and tourist in Macao's public space. Created by the authors.

The whole ritual event can be seen as a process of 'Negotiation': both on a Macro-scale, between official narratives and community-driven, and on a smaller scale, between curious tourists and the seriousness of the religious practice itself. This kind of negotiation is common in many similar religious events, but what makes this case unique is Macao's historical and cultural background, which gives the negotiation more room for interpretation. This process becomes visible through the way the community and tourists share public space, allowing it to be observed. Tourism studies offer a distinct perspective to understand, according to Urry and Larsen (2011), the tourist gaze not only constructs meanings around cultural rituals but also influences how local communities perform and negotiate their identities for visitors. This study attempts to explore the compromises, conflicts and negotiations that addresses two core questions: the interaction between the community and tourists during the ritual, and the

Fig.5 The Procession of Our Lord of the Steps in Natal, Brazil, 1930s. Reprinted from Irmandade do Senhor Bom Jesus dos Passos: Festas e Funerais na Natal Oitocentista (p. 66), by A. L. G. N. Pontes, 2008, Master's thesis, Universidade Federal da Paraíba.

negotiation between the Authorised Heritage Discourse and the religious practice itself.

Literature Review

Ritual, Tradition and Community

As Shils (1981) argues, there is no festival without memory or history: people celebrate by re-enacting old traditions as a way to prepare for the future and what lies ahead. The origins or theological foundations of this event are not the focus of this article, but a brief overview of its history is necessary. The procession originated in Lisbon in 1587 and is known in Portuguese as the Procissão do Senhor dos Passos da Graça (Procession of the Passion of Our Lord Graça), with 'Graça' referring to one districts of Lisbon. With the spread of Catholicism around the world, especially through Portuguese missionaries, this event was introduced to overseas communities. This traditional event is still active in Portugal, Brazil and Macao, and other regions.

Pontes (2008) examines the ceremonial role of the brotherhood in 19th-century in Brazil, the procession, after spreading to Brazil, blurred the boundaries between the religious and the everyday life, and embodying the emotional bonds of religion and community.

Victor Turner (1957) in his book *Schism and Continuity in an African Society*, introduced the concept of social drama. He argued that performance, social organization, and group dynamics together form the core of this idea. Social drama serves ritual as a model to deal with the conflict within a community. This theory was influenced by Arnold van Gennep, he argues that rituals often include three steps: separation from a prior social role, transition as a liminal process, and reintegration returning to the social order in a new state.

Turner (1985) further developed this theory by introducing the concept of *communitas*. In his view, *communitas* represents a moment of equality and togetherness, people are freed shortly from their social roles and labels. Turner's concept of *communitas* is rooted in the Catholic idea of communion, as both emphasize a deep spiritual connection among individuals.

Festivals are not only a way to celebrate or promote local culture and traditions, but also help build social capital. As Putnam (1993) explains, social capital refers to the resources and opportunities that individuals gain through social networks. Arcodia and Whitford point out that festivals can positively contribute to social capital in various ways, such as building community resources, strengthening social cohesion, and encouraging celebration. For instance, organizing a festival often requires local resources and skills, which helps enhance

expertise within the community and promotes cooperation between different groups (Arcodia & Whitford, 2007).

The Tourist Gaze

In 1990, Urry introduced the concept tourist gaze, suggesting that tourists seek to gaze landscape and cultural symbols that are not from their everyday lives, to have experiences of pleasure, curiosity and excitement. He contended there is a power structure involved in the act of gazing. In this case, the power structure includes tourists, residents, experts, and the media. During the procession, we could observe a large number of visitors or participants taking photos with their mobile phones, which is considered as a kind of gaze (Urry, 2011). It is appropriate to use this as a conceptual lens for the case because firstly, unlike Portugal and Brazil where similar religious events are held, Macao is not a Catholic society, some statistics show that Catholics account only about 5% of the local population; second, with the rapid development of tourism, Macao receives a large number of visitors, most of whom come from regions where Catholicism is not a mainstream religion.

The gaze is not a unilateral process but a dynamic and bilateral negotiation of interactions among intermediaries, tourists, and local residents. The success of appropriate or sustainable tourism development depends more on the power held by intermediaries and local residents than tourists (Cheong & Miller, 2000). Doxey (1975) proposed the model to explain how residents' attitudes toward tourists shift over time: euphoria, apathy, annoyance and antagonism. Chen, Song, and Li (2024) argue that the tourist gaze should be understood as a socially constructed and dynamic process, rather than between two sides of power. This dynamic process can also be observed in the processions, the participants perform and negotiate their identity in response of the tourists' gaze.

Authorised Heritage Discourse

The process of heritage awareness, represented by Authorised Heritage Discourse (AHD), has a tendency to divide heritage simply into tangible and intangible cultural heritage creating a dichotomy. Smith (2015) points out that heritage can be usefully understood as site or place as a subjective process of political negotiation involving the construction of identities, places and memories. She argued for a rethinking of the way heritage is perceived, offering the idea that all heritage is intangible and that the process of heritage creation is created in cultural interactions. A study of a procession in Brazil reflects this idea, showing that the event is not only considered of a 'living heritage', but also represents the identity of a diverse and complex community with shared memories and lifestyles. (da Paz Pinheiro, Carvalho, & dos Santos, 2020).

Although Macao is small city, it is remarkably culturally diverse. Community participation remains a key factor in keeping traditional festivals authentic in the context of globalization (Gravari-Barbas & Graburn, 2020). Besides Catholic, traditional Chinese beliefs such as the worship of A-Ma, Nezha and Tam Kung Festival etc, also play a significant role. Moreover, there are events not recognized as official holidays or heritage, but promoted as major events to attract tourists, such as the Sinulog Festival from Filipino communities, the Thingyan Festival from Myanmar's Chinese communities, and India's Holi Festival. Macau's Catholic heritage is an excellent case study to understand how these festivals play out in the context of AHD interactions in a diverse community such as Macao.

METHODOLOGY

Participant Observation and autoethnography

This study adopts a combination of ethnography and autoethnography. On one hand, it uses field observation and participation to understand the cultural negotiation process within

Macao's Catholic rituals. On the other hand, it draws on the researcher's own experience to reflect on how individuals feel and navigate this process during the ritual. Ethnography, as a classic method in this type of research, is an essential tool. The ritual process explored in this study is rooted in deep religious culture, shaped by Macao's unique historical background and community structure, and influenced by the growing demands of tourism in the modern time. The use of autoethnography is both necessary and meaningful. First, direct experience allows researchers to reflect on details that might be overlooked. Second, the researcher 'in the field' could experience the event firsthand, particularly the micro level negotiations which enables us to reflect more structural negotiations. In addition, it also allows us to record personal feelings and perspectives such as unique psychological experience and interesting interactions.

Interview

Interviews were done with the organizers and core participants of the ceremonies to gather information on their personal life experiences, sources of religious beliefs, associations and ceremonial organizations, religion-community relations, visitor interactions, heritage narratives, culture and identity. The interviewees:

Code name D. Male, 25 years old, local Macao resident, currently studying at a Portuguese University, he was exposed to Catholicism in Portugal and converted. He was a core participating member on the event this year, walking in the procession with ritual objects in his hand. He has recently resided in Portugal and is actively involved in religious and organizations.

Code name L. Male, 27 years old, local Macao resident, neither of his parents are Catholic, but converted in secondary school attending a Catholic school. He studied at a University in Portugal and currently live and working in both Macao.

Code name H. Male, 35 years old, male, local Macao resident, from a Catholic family. He is one of the organizers and who regularly participates in religious activities. He had start to participate the organizer volunteer work for the catholic event like processions from meddle school.

These interviewees share common characteristics. Firstly, they are all local people born in Macao with experience of living overseas, and they have a good language skill of Mandarin, Cantonese, Portuguese and English. Secondly, they all have at least a master's degree and a certain level of cultural reflection. Thirdly, they are actively involved in the Catholic community in Macao.

Data Collection and Credibility and Reflexivity

The data collection was collected on-site and field notes on the events. The research team attended both March 9 and April 18, 2025 processions. The complete experience of the ceremonial process allowed us to collection of a large amount of photographic, video and textual material and field notes. Reflective notes were made by comparing other authors' participation in Macao's ceremonial events, and a description of the researcher's own spiritual experiences. Interviews with the three lasted from April 2025 to July 2025, and were collected through semi-structured interviews. Voice recordings of interviews are used for academic research purposes under anonymity with the consent of the interviewees. All interviews were completed in Mandarin Chinese and translated into English.

To build credibility, field notes were used to compare with other research, literature, and interviewed materials.

FINDINGS

Ritual as a Community Bond

In terms of the relationship between ritual and community, all three interviewees emphasised the strong connection between the event and the community, as well as the key feature of spontaneity. They emphasized that the organizers of this event are not a formally structured organization, but rather rooted in community-based practices.

L: I come from a Catholic family, born and raised near the Cathedral in Macao; I've been involved in church activities, include the two processions, from a young age. Starting in secondary school, I began helping the Church organize different events—like the two main processions, the Fatima procession, and several others. Many aunts and uncles from church know me, but sometimes I don't know them. Church events are quite different from other kinds of activities. Macao is a close-knit society; we don't have a very formal organization that coordinates and manages everything. It's more informal and based on the community.

D: During this year's procession, I played a fairly important role, and I was really happy about it—especially because I had just returned to Macao briefly from Portugal. How did I get chosen for the role? No one really 'chose' me. I'm kind of an 'insider'—I know some people, and they just said, "Alright, you can take on this role." So, I joined.

H: There's no formal selection for who plays which role in the event. Personally, I feel that the Church isn't a very democratic space—though I don't mean that in a negative way. What I mean is, if you're actively involved in church activities, of course you'll be more likely to take on more important roles. But yes, you do need to know some of the "insiders".

Church activities, represented by religious processions, have become an important community bond and are important regular events within the local community.

L: Since people now live in different parts of Macao—and some even live abroad—every year, about a month before the event, everyone starts coming back on their own initiative. Of course, there's always a core person who helps coordinate things. That person usually assigns who will carry the statue of Jesus and who will play the little angels. Nowadays, we have a group chat online where things get organized. But in the past, before the internet, people would still come together voluntarily around the same time every year, just because it was tradition.

In L's account, he used the word "come back," revealing how church events have become meaningful moments that reconnect people with place and community.

Between Tourists and Ritual Seriousness

During fieldwork observation, we recorded two particularly interesting behaviors among tourists, which reflect their main forms of impact on the event: overcrowding and lack of understanding.

Fieldnote (9 March 2025):

Just before the procession began, a large crowd had already gathered in front of the Cathedral, including journalists, local participants preparing to follow the procession, and many curious tourists. From overheard conversations, it was clear that some tourists were don't know what kind of event was taking place, or only had a blur idea. This was often visible in their curious expressions, which contrasted with the believers' serious and solemn appearance.

The large crowd caused a certain degree of traffic problems, although overall order was well maintained. One particular moment stood out: a cheerful family of four was excitedly taking selfies-picture in front of the Cathedral and the crowd. This behavior drew the disapproval of

elderly standing nearby. When another little girl started skipping near him, he sternly scolded her, expressing clear discomfort with the casual attitude.

As the procession moved onto Macao's main avenues, the crowd grew larger, and more curious lookers began to join. Walking near the front of the procession, I overheard two tourists speaking. One asked, "What's going on? Why are so many people walking in the group? What kind of event is this?" The other replied, "It must be someone's funeral. Look at those marching bands. "

The voice of the community is that they occasionally expressed distress because of some inappropriate behaviour of tourists, but overall, they hold a positive attitude towards the tourists.

L: I think it's totally fine for tourists to come and watch. Actually, we keep a certain distance from them—we don't see the event as a performance, and we're not trying to preach. Of course, in some ways it is a performance, but at its core, it's about sharing a religious experience and its values. Sometimes, though, certain tourists can be really frustrating—like getting too close when taking photos, being loud, or even causing safety risks just to get a good picture.

H: Let's take this festival as an example. Its meaning can be different for different people. For some, even if they are not Catholic, they may still use the festival for tourism—like promoting Macao and attracting visitors. In this case, they use the cultural features of the event as a tool. But for the local people who organize the event, it means something else. It helps them feel a stronger connection to their identity. They may think, "I am from here," "I belong to this community." Through the festival, they feel connected to their history and traditions. So, it's a two-way process. Outsiders may use the event for tourism, while insiders use it to build a sense of belonging.

Negotiating Identity in a Hybrid City

As an observer, I felt the spiritual calling of the ritual and experienced a certain negotiation of identity as I walked. Ritual participants move between Spiritual meaning and public representation, as fieldnotes record:

Fieldnote (9 March 2025):

The entire procession was solemn and dignified, moving at a very slow pace, with prayers held along the way. There were many participants, and I walked almost at the very front of the line. The procession was highly orderly—everyone held a small booklet and sang softly along with the music played by the marching band. Although I am not a Catholic, I still felt a deep sense of awe.

A noteworthy element is the sound, which becomes almost a sort of representative negotiation of this ritual. With the playing of the band, the quiet and singing of the march, the tourist chat voice and the cacophony of the city centre, I felt that this familiar street had been changing into a different space, has new meaning through the ritual.

There were a lot of people who weren't part of the procession taking pictures of the street, given me another identity —people who were in the procession, and I was involved in making the landscape.

For the local community, participants become a channel to get to know Macau's diverse social background through this type of activities.

L: *I truly see this event as part of my annual life experience. Every year, I make sure to come back and take part in it. And through this procession, I've witnessed those changes over time. I have observed a change in the cultural background of the people involved in the event, such as the increase in people of South East Asian descent more recently growth with the development of Macao's tourism and hospitality industrie. You can see so many changes in the social environment from this event.*

D: *I enjoy joining these kinds of events because they help me understand local communities. When I lived in Porto, I noticed how strong the religious culture was, especially in northern Portugal. It made me realize how deeply religion is connected to European history, education, and daily life. This also made me reflect on the difference between Western and Chinese views of religion. This contrast helped me think more deeply about cultural differences and made me feel more connected to history.*

DISCUSSIONS

Ritual as Dual Structure: Faith and Performance

The two Catholic events in Macao are featured by self-driven; community members joined in spontaneously, coordination of activity organization based on voluntary participation. Rituals, as Turner suggests, create a liminal moment that happens within the gaps of social structure, where faith serves as a bond that enables community connection.

The ritual also has a performative side. It happens in public, in a society where most people are not Catholic. We noticed two major tourist-related impacts: physical crowding and unawareness of religious significance: as noted in a local media report, some tourists even assumed that an important people were visiting the city due to the solemnity of the scene (O Clarim, 2025). Based on our observations, the majority of tourists appeared unaware, with many speculating that it was a funeral or a similar type of ceremony.

We do not see annoyance or antagonism as Doxey described, on the other hand, the voice from the local community is much more about understanding and welcome for the tourist. However, some visitors' inappropriate behaviour, such as taking photographs from too close a distance, making noise, overcrowding, did lead to resentment. The community's choice is maintaining the meaning of the event in order to gain balance between the faith and performance. It's also not a disregard for tourists, but a more positive strategy for sustainable development in the knowledge of their presence. The macro social negotiation is discussed in the following section.

Community spontaneity and cultural heritage narratives

The Catholic community in Macao has not actively used the label of intangible cultural heritage to promote its events, instead maintaining a strong sense of autonomy in organizing its rituals.

L: *We don't even emphasise that we are intangible cultural heritage, we all participate in a very normal religious activity, with our very devout hearts. I know other festivals in Macao; they are really doing hard to promote. Sometimes they go to different festivals to perform there. Some people in my church casually discussed whether it's possible for us to perform as they did, e demonstration to a wider audience. But everyone said no, because we didn't treat it as a show, it's really a religious activity. If it's just to attract tourists, then it doesn't seem to be our purpose.*

Different community heritage organizers in Macao adopt different strategies when negotiating ICH narratives. Both observations from field and interview data reveal that some other communities are more voluntary in leveraging ICH—for example, by printing the ICH

designation on participants' vests during their events. The reasons behind this are complex, related to the charters of the heritage, the state of practice, organizer and its communities.

Utilisation of Public space

Processions involve two main categories of public space. First is the Catholic church, which serves as both the departure and arrival point of the procession, and also functions as the central venue for ritual activities. According to the Cultural Affairs Bureau of Macao SAR, both churches classified as protected immovable properties. St. Augustine's Church (Santo Agostinho Square) was originally built in 1591 and was renovated in 1874 in a European Renaissance classical style. The Cathedral (situated at Largo da Sé) was first constructed in 1662 and underwent its most recent reconstruction in 1937. The ritual activity, which is a sort of complement to Smith's (2015) idea that 'all heritage is immaterial': if separated from this activity, these buildings lose their living social purpose when they become non-functional.

Following the homily, the procession departing from the Cathedral, the procession first pauses at the Cathedral itself. The route passes through Rua de Pedro Nolasco da Silva and Senado Square, continuing past St. Dominic's Church, Rua do Padre Pedro, the Portuguese Consulate, Avenida de Almeida Ribeiro, and St. Lawrence's Church. In total, there are seven stops of procession route.

L mentioned the issues of architectural aesthetics and historical continuity.

I have lived in many countries such as the UK and the US, and I have visited churches in many countries, but the churches in Macau are really beautiful. I went to XXX (a place, hidden by author), really strange that the churches were very very ugly. I learnt a lot of history I didn't know through visiting churches. It turned out that Macao used to be so important in history, some churches in Singapore and the Philippines used to be under the jurisdiction of Macau, which is a valuable historical treasure of the city, but many people don't know that.

Concerning between the procession and the traffic, L:

Although the procession briefly affects traffic, when I was a child, as we passed through different neighbourhoods, many people would wave to us from their windows. The actress playing Veronica would take her costume to the laundry, and the shop owner would say, "Oh, so you're playing Veronica this year." She's not even Catholic, but she's very familiar with the ritual.

Because the procession went through the city centre, it attracted a lot of attention from tourists. As with many news reports and our observations, many people unfamiliar with Catholicism were more speculative and curious as to what was going on. Unlike the crowds that gathered at the start location, people were more difficult to joining the procession during the march. In addition, we had not noted traffic problems caused by these events. The Processions are more of a conversion of real physical space, into some kind of memory space, as mentioned in another study on Catholic processions in Brazil: Catholic processions are deeply rooted in people's lives, deepening the bonds of identity among the crowd. This narrative exists in the streets, squares, families and memory spaces of all kinds (da Paz Pinheiro, Carvalho, & dos Santos, 2020).

CONCLUSION

Key findings

The two Catholic processions in Macao is an important bond for the local community. Due to the strong historical tradition of Catholic activities, the events, featuring of heritage

architecture, music, costumes, symbols, and together, have become a shared memory that connects and unites the local community. As Turner's theory of *communitas*, within the ritual, individuals are no longer distinguished by social structure or status differences, but rather a sense of equality in the community. And as Arcodia pointed out, the collective participation in this case contributes to the development of social capital by fostering trust, cooperation and a sense of belonging among community members.

In the context of the development of the tourism economy, the rapidly growing number of tourists has not created great tension or conflicts with the ritual activities, there is an appropriate distance between the tourists and the organisers. From the point of view of the local community, rather than promotion, the core purpose of the activities is still to share the religious values.

These religious activities focus more on the historical traditions of festivals and the practice of religious ideology than on displays or promotion itself, and do not actively seek to display them out of their historical context, maintaining a considerable degree of subjectivity. In terms of the use of public space, in addition to the rational use of traditional religious and historical heritage buildings, the intangible cultural heritage narrative gives more validity to the event, and the many years of successful holding of this tradition have become a demonstration of Macao's cultural diversity.

Research Limitation

The first limitation of this study is the lack of long-term observation and fieldwork, with only a cross-sectional data from one season. While attempts were made to obtain more data through interviews and historical documents, long-term observation is still necessary. More diverse interviewees, such as tourists, should be introduced in future studies.

At the same time, some statistical data to profile visitor activity is needed to explain more, and more specifically, visitor behaviours. This is one direction for this study in the future.

Although the activities of other communities were mentioned, a more comprehensive comparison is still missing. The colourful festivals are a concrete demonstration of the diversity of the Macao community and the beauty of the city, which is a direction for future research. Through the living practice of Catholic heritage activities in Macao, we see that it is not only a 'living heritage', more importantly, it is the people themselves. Why heritage becomes a heritage not only because of identification and listing, but in practice, in the moments of cultural negotiation where meaning is recreated.

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ASSESSING SYNERGY BETWEEN RURAL TOURISM AND HUMAN SETTLEMENTS

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INTRODUCTION

The Report to the 20th National Congress of the Communist Party of China points out that high-quality development is the primary task for comprehensively building a modern socialist country. Rural tourism is an important part of the rural economic system and a strong driving force for achieving rural revitalization. As China enters a stage of high-quality development, promoting the high-quality development of rural tourism has become an important measure to meet the people's aspirations for a better life (Wang et al., 2024).

Rural human settlements constitute a dynamic and complex mega-system formed by interconnected settlements and their surrounding rural environments (Afshar, 1998; Wang & Zhang, 2024). The 2023 No. 1 Central Document emphasizes implementing premium rural leisure tourism projects and advancing the improvement of rural human settlements. The development of rural tourism and the coordination of human settlements are strongly coupled, both serving as key components and effective pathways for rural revitalization (Feng, 2022). The development of rural tourism requires a good living environment (Lin et al., 2020) to enhance its attractiveness (Cui, 2020). In turn, orderly rural tourism development injects new vitality into rural human settlements (Tang et al., 2023). Ristić et al. (2019), through constructing a rural sustainable development index system, found that rural tourism sustainability in the studied regions promotes the improvement of rural human settlements. Rural tourism makes rational use of rural space, agricultural environments, and infrastructure possible, while improving rural human settlements is also one of the important propositions for promoting rural tourism marketing (Hüller et al., 2017).

The RTID and RHSD have received sustained attention from governments and society, yet research on the relationship between the two remains relatively limited (Wang et al., 2024). Existing studies mainly focus on the following aspects: (1) The renewal, evolution, and transformation of human settlements under the context of rural tourism development (Wang & Zhang, 2024; Yan et al., 2019; Li et al., 2019; Li et al., 2014). These studies focus on the long-term impacts of tourism development on the evolution of human settlements in rural tourism destinations, including driving forces and mechanisms. (2) The radiating effects of human settlements on rural tourism industry development (Zheng et al., 2021; Wang, 2021; Lin et al., 2020; Zhang, 2020). These studies examine the influence and mechanisms by which rural human settlements affect rural tourism development, primarily using village-level data from national agricultural censuses and employing methods such as ordinary least squares, quantile regression models, and negative binomial regression models. (3) The organic and coordinated development of tourism industry and living environments in rural areas (Cui, 2020; Song & Cui, 2020). While recognizing the synergistic relationship between the two, these studies are mostly qualitative and lack systematic and comprehensive data analysis to support the coordinated interaction between rural tourism and human settlements across different regions.

Given the interactive complexity and spatiotemporal variability of the RTID and RHSD, this study constructs an evaluation index system for both. Using the entropy method, it establishes the coupling and coordination level, along with obstacle degree models to analyze the coupling mechanisms and development patterns between the RTID and RHSD in the Hang-

Jia-Hu region. The aim is to promote sustainable and balanced growth in regional rural tourism and living environments, enrich research on their coordinated relationship, and provide theoretical support for practical development.

RESEARCH DESIGN

Construction of the Evaluation Index System

Using data on the RTID and RHSD in the region from 2009 to 2018, this study applies the entropy method to assign weights to the comprehensive evaluation indicators, as shown in Table 1.

Table 1. Evaluation Indicators and Their Weights for the RTID and RHSD

System	Primary Indicator	Secondary Indicator	Unit	Weight	Attribute
Rural Tourism Industry Development (RTID)	Demand Status	Annual Rural Tourism Revenue X1	100 million yuan	0.1252	+
		Annual Rural Tourism VisitorsX2	10,000 person-times	0.1106	+
		Per Capita Tourism Consumption X3	yuan	0.0652	+
	Industrial Effect	Tourism Output Density X4	10,000 yuan/km ²	0.1181	+
		Rural Tourism Revenue/GDPX5	%	0.135	+
	Resource Factors	Number of Farmstay (Homestay) Operators X6	household	0.0835	+
		Number of Travel AgenciesX7	company	0.1818	+
	Resource Factors	Number of A-level Scenic Spots X8	unit	0.099	+
		Number of 4A-level and above Scenic Spots X9	unit	0.0817	+
		Population Density X10	person/km ²	0.0682	-
Rural Human Settlements Development (RHSD)	Social and Cultural Environment	Natural Population Growth RateX11	‰	0.0271	-
		National Intangible Cultural HeritageX12	item	0.0746	+
		Education Expenditure X13	10,000 yuan	0.0455	+
		Rural Public Cultural Facilities X14	unit	0.0577	+

Economic Environm ent	Rural Residents' Per Capita Disposable Income X15	yuan/person	0.057	+
	Rural Per Capita Gross Output Value of Agriculture, Forestry, Animal Husbandry and Fishery (including services) X16	yuan/person	0.0629	+
	Rural Per Capita Total Retail Sales of Social Consumer GoodsX17	yuan/person	0.0458	+
	Rural Household Engel's Coefficient X18	%	0.0662	-
	Rural Employed Persons X19	10,000 persons	0.0766	+
	Rural Minimum Living Security Population as Percentage of Rural PopulationX20	%	0.0232	-
	Rural Residents' Per Capita Housing AreaX21	m ² /person	0.0127	+
Infrastruct ure Environm ent	Popularization Rate of Sanitary Toilets in Rural Areas X22	%	0.0131	+
	Access Rate of Paved Roads in Administrative Villages X23	%	0.0244	+
	Popularization Rate of Tap Water in Rural Areas (Beneficiary Rate of Population with Tap Water Meeting National Standards) X24	%	0.0109	+
	Number of Rural Health Technical Personnel X25	per 10,000 population	0.1038	+
	Number of Medical Institution Beds in Rural AreasX26	bed/10,000 persons	0.071	+
Ecologica l Environm ent	Chemical Fertilizer Application Intensity X27	t/hm ²	0.0159	-
	Pesticide Application Intensity X28	t/hm ²	0.0402	-

Forest Coverage Rate X29	%	0.0508	+
Number of Days with Excellent Air Quality X30	day	0.0333	+
Centralized Harmless Disposal Rate of Rural Domestic Garbage X31	%	0.0192	+

Note: ① The weights are calculated based on data from Hangzhou, Jiaxing, and Huzhou. ② "+" indicates positive indicators; "-" indicates negative indicators.

Research Methods and Data Sources

This study employs the entropy method to determine the objective weights of various indicators within the systems of RTID and RHSD, thereby calculating their respective comprehensive development indices. A coupling degree model is constructed to measure the extent of integration between these two systems, with the coupling degree values categorized into four stages: low coupling, antagonism, running-in, and coordinated coupling, to describe their integration characteristics. To further assess the coordinated development level of the systems, a coupling coordination degree model is introduced, combining comprehensive evaluation values and coupling degrees to calculate coordination levels. Additionally, a synchronicity model is used to analyze the relative relationship of the overall development levels of the two systems, dividing them into three categories: rural tourism lagging behind, generally synchronous development, and human settlements lagging behind. Finally, an obstacle degree model is constructed to identify the main obstacles affecting the integrated development of the two systems. By calculating the obstacle degrees of each indicator and system, key constraining factors are ranked to provide a basis for policy adjustments and optimizations.

The Hang-Jia-Hu region refers to the cities of Hangzhou, Jiaxing, and Huzhou, which historically were part of the Liangzhe West Circuit. Since the Southern Song Dynasty's relocation, the Hang-Jia-Hu region has been an economic center in southeastern China. To ensure the authenticity and reliability of the data sources, all data used in this study come from official statistics released by government statistical departments. This includes statistical yearbooks, tourism overviews, and national economic and social development bulletins officially published between 2009 and 2018 for Hangzhou, Jiaxing, and Huzhou. Additionally, information from the official websites of the cultural and tourism bureaus and the agricultural and rural bureaus of these three cities was utilized. For data points that could not be obtained, interpolation methods were used to supplement the missing information.

RESULTS

Comprehensive Development Level

To verify the correlation between rural tourism and rural human settlements, this study employed SPSS 23.0 statistical analysis software to conduct linear regression analysis on the two subsystems in Hangzhou, Jiaxing, and Huzhou from 2009 to 2018. Analysis of variance for the regression model revealed an F-value of 46.236 for the significance test of variance, with a corresponding P-value less than the 0.05 significance level, indicating that the model's overall explanatory variance reached statistical significance. Significance testing of independent variables yielded regression coefficient t-values of -2.806 ($p < 0.05$) and 6.800 ($p < 0.05$), confirming the significance of the regression coefficients. The correlation coefficient

between the RTID and RHSD was 0.789, indicating a strong correlation that supports empirical investigation.

Table 2. Comprehensive Development Level of the RTID and RHSD

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hangzhou	Rural tourism	0.192	0.237	0.287	0.366	0.449	0.513	0.569	0.613	0.689	0.820
	Human settlements	0.309	0.341	0.432	0.464	0.474	0.523	0.589	0.592	0.590	0.617
	Assessment	0.2508	0.2895	0.3597	0.4158	0.4621	0.5181	0.5792	0.6031	0.6401	0.7188
Jiaxing	Rural tourism	0.1375	0.1390	0.1565	0.1878	0.2001	0.2683	0.3113	0.3455	0.3780	0.4298
	Human settlements	0.3143	0.3714	0.4017	0.4604	0.4654	0.5084	0.5513	0.5721	0.6031	0.6797
	Assessment	0.2259	0.2552	0.2791	0.3241	0.3327	0.3883	0.4313	0.4588	0.4905	0.5548
Huzhou	Rural tourism	0.1079	0.1399	0.1604	0.1788	0.1919	0.3221	0.3462	0.4384	0.5279	0.5829
	Human settlements	0.2247	0.2770	0.3209	0.3688	0.4028	0.4006	0.4591	0.4805	0.5070	0.5576
	Assessment	0.1663	0.2085	0.2406	0.2738	0.2974	0.3613	0.4026	0.4595	0.5175	0.5703

Note: At the system level, rural tourism refers to the rural tourism comprehensive development level; human settlements refer to the rural human settlements comprehensive development level; and assessment refers to the comprehensive evaluation value of the RTID and RHSD.

The synthetic evaluation values for both systems across the three cities show a gradual upward trend in the integrated development level of the RTID and RHSD. However, rural tourism development has progressed at a faster pace than human settlements. Before 2016, the comprehensive level of rural tourism development in the Hang-Jia-Hu region was lower than that of human settlements. However, in Hangzhou and Huzhou, rural tourism development surpassed human settlements in 2016 and 2017, respectively. Only Jiaxing remained in a stage of lagging rural tourism development throughout the period.

Notably, despite comparable 2009 baseline metrics, divergent growth patterns emerged over the decade: Hangzhou established a distinct developmental lead, while Huzhou—leveraging its systematically designed development framework—overtook Jiaxing by 2016 and sustained robust momentum thereafter. Collectively, these findings underscore the mutually reinforcing nature of tourism-habitat relationships, emphasizing the imperative for coordinated policy interventions and strategic investment to foster sustainable regional development.

Coupling Degree Analysis

Table 3. Coupling Degree of the RTID and RHSD

Coupling Degree	Year										Coupling Stage
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Hangzhou	0.9725	0.9838	0.9794	0.9930	0.9996	1.0000	0.9999	0.9999	0.9970	0.9900	Coordinated Coupling
Jiaxing	0.9202	0.8904	0.8984	0.9073	0.9171	0.9510	0.9605	0.9690	0.9733	0.9743	Coordinated Coupling
Huzhou	0.9364	0.9444	0.9427	0.9379	0.9350	0.9941	0.9901	0.9990	0.9998	0.9998	Coordinated Coupling
Average	0.9430	0.9395	0.9402	0.9461	0.9506	0.9817	0.9835	0.9893	0.9900	0.9880	Coordinated Coupling

It can be seen that the coupling degree of the RTID and RHSD in all three cities shows a fluctuating upward trend. Before 2017, Hangzhou's coupling degree was ahead of Jiaxing and Huzhou. However, with the continuous optimization and summarization of the Huzhou model, Huzhou's rural tourism industry has continued to gain momentum, particularly through active exploration of rural tourism systems and mechanisms. Between 2013 and 2014, the coupling degree of the RTID and RHSD in Huzhou saw a significant increase, and by 2017 it began to surpass Hangzhou.

Coupling Coordination Degree Analysis

The level of coordinated development between the RTID and RHSD has steadily increased. The average coupling coordination degree in the Hang-Jia-Hu region rose from 0.4481 in 2009 to 0.7780 in 2018. The coupling coordination between the two subsystems has gradually improved, and the region has currently entered a stage of high coupling.

From 2009 to 2013, Hangzhou was in a stage of moderate coupling. During these five years, the coordination type evolved from borderline dysregulation in 2009 to Primary coordination in 2013, encompassing three levels. Prior to 2012, rural tourism industry development lagged behind human settlements development. In 2013, with a synchronicity (P) value of 0.9470, the RTID and RHSD entered a phase with relatively synchronous development. Hangzhou shifted its focus from inbound tourism to developing the provincial tourism market in 2009, ushering in a robust phase for rural tourism. However, due to the unique and abundant rural living environment resources in the region, coupled with rapid urbanization, human settlements development outpaced rural tourism during this period.

From 2014 to 2018, Hangzhou was in a stage of high coupling. The Coordination in the interaction of the RTID and RHSD increased from 0.7198 to 0.8436, evolving from intermediate coordination to good coordination. Between 2014 and 2016, the synchronicity type was relatively synchronous development. From 2017 to 2018, the synchronicity type shifted to human settlements lagging behind, attributed to Hangzhou's emphasis on building an international tourism and leisure center, prioritizing rural tourism development. Through comprehensive implementation of village environmental governance, ecological protection, cultural excavation, and industrial optimization projects, a solid foundation was laid for high-quality rural tourism development.

It is noteworthy that, despite the strong interdependence of the RTID and RHSD in Hangzhou, data and empirical analysis reveal ongoing issues: the momentum for human settlements

development is insufficient, and the effective conversion rate of human settlements into tourism resources needs enhancement.

Jiaxing's moderate coupling stage spans the most years among the three cities, covering 2009 to 2017. The coordination type evolved from borderline dysregulation in 2009 to Primary coordination in 2017. According to the synchronicity model, from 2009 to 2018, Jiaxing's rural tourism industry development lagged behind human settlements development, classified as lagging the RTID. Although the average growth rate of rural tourism industry development was 0.1370 and that of human settlements was 0.0898, due to the starting value of human settlements being more than twice that of rural tourism in 2009, it indicates a significant disparity in the foundational development between the two subsystems. To achieve higher-level interaction with optimized human settlements, continuous exploration is required.

In 2009, Jiaxing took the lead in conducting comprehensive rural land consolidation across the province. In 2013, Jiaxing formulated a five-year plan for rural tourism industry development and promoted rural tourism brands. During the rural human settlements construction process in 2014, Jiaxing actively drew on early experiences, placing greater emphasis on protecting local landscapes and characteristics of the Jiangnan water towns. Driven by supportive policies and brand resources, the overall development levels of both systems have been continuously improving, with the gap decreasing annually since 2012. Significant increases in development levels were observed after 2013. By 2018, Jiaxing had entered a high coupling stage, With rapidly improving synergy linking the RTID and RHSD, indicating increasingly coherent coordinated development.

Compared to the other two cities, Huzhou initially had a lower coupling coordination degree but experienced faster optimization and sustained momentum. In 2009, Huzhou was at a low coupling stage, categorized as mild dysregulated with lagging rural tourism. From 2010 to 2016, Huzhou was in a moderate coupling stage, spanning transformations from borderline dysregulation to primary coordination. After 2013, Huzhou's rural tourism industry development gained significant momentum, with an average growth rate of 0.2104, peaking at 0.6780, while human settlements also developed rapidly. Known as "China's Leading City for Rural Tourism Industry Development," Huzhou's rural tourism industry development is fundamentally supported by institutional innovation, pioneering the establishment of rural tourism standards nationwide. Huzhou has extensive experience in optimizing rural human settlements through implementing the "Thousand Villages Demonstration, Ten Thousand Villages Improvement" project, achieving innovative goals of one village, one specialty. With the coordinated development of both systems, Huzhou transitioned to a comprehensive relative synchronization development type in 2016. Starting from 2017, Huzhou entered a high coupling stage with intermediate coordination, indicating that rural tourism and human settlements will achieve high-quality development at a higher level of interaction.

Table 4. Coordination and Synchronicity of the RTID and RHSD

City	C/P	Year									
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hangzhou	C	0.4938	0.5336	0.5936	0.6425	0.6797	0.7198	0.7610	0.7766	0.7989	0.8436
	P	0.6224	0.6957	0.6643	0.7889	0.9470	0.9808	0.9667	1.0347	1.1676	1.3289
Jiaxing	C	0.4559	0.4767	0.5007	0.5423	0.5524	0.6077	0.6436	0.6668	0.6910	0.7352

	P	0.4373	0.3743	0.3896	0.4079	0.4299	0.5277	0.5647	0.6038	0.6267	0.632 3
	C	0.3946	0.4437	0.4763	0.5067	0.5273	0.5993	0.6314	0.6775	0.7193	0.755 1
Huzhou	P	0.4805	0.5050	0.4997	0.4848	0.4764	0.8039	0.7541	0.9124	1.0413	1.045 3

Note: C represents the coupling coordination degree; P denotes synchronicity.

Table 5. Evolutionary Trend of Coupling Coordination Status

	Hangzhou	Jiaxing	Huzhou
2009	Rural Tourism Industry Lagging, Borderline Dysregulation	Rural Tourism Industry Lagging, Borderline Dysregulation	Rural Tourism Industry Lagging, Mild Dysregulation
2010	Rural Tourism Industry Lagging, Reluctant Coordination	Rural Tourism Industry Lagging, Borderline Dysregulation	Rural Tourism Industry Lagging, Borderline Dysregulation
2011	Rural Tourism Industry Lagging, Reluctant Coordination	Rural Tourism Industry Lagging, Reluctant Coordination	Rural Tourism Industry Lagging, Borderline Dysregulation
2012	Rural Tourism Industry Lagging, Primary Coordination	Rural Tourism Industry Lagging, Reluctant Coordination	Rural Tourism Industry Lagging, Reluctant Coordination
2013	Comprehensive Relative Synchronization, Primary Coordination	Rural Tourism Industry Lagging, Reluctant Coordination	Rural Tourism Industry Lagging, Reluctant Coordination
2014	Comprehensive Relative Synchronization, Intermediate Coordination	Rural Tourism Industry Lagging, Primary Coordination	Rural Tourism Industry Lagging, Reluctant Coordination
2015	Comprehensive Relative Synchronization, Intermediate Coordination	Rural Tourism Industry Lagging, Primary Coordination	Rural Tourism Industry Lagging, Primary Coordination
2016	Comprehensive Relative Synchronization, Intermediate Coordination	Rural Tourism Industry Lagging, Primary Coordination	Comprehensive Relative Synchronization, Primary Coordination
2017	Rural Human Settlements Lagging, Intermediate Coordination	Rural Tourism Industry Lagging, Primary Coordination	Comprehensive Relative Synchronization, Intermediate Coordination
2018	Rural Human Settlements Lagging, Good Coordination	Rural Tourism Industry Lagging, Intermediate Coordination	Comprehensive Relative Synchronization, Intermediate Coordination

Obstacle Degree Analysis of the RTID and RHSD

Based on the comprehensive evaluation results, the obstacle degree model is applied to calculate the obstacle degrees of secondary indicators for the RTID, and subsequently derive the obstacle degrees at the primary indicator level. By calculating the obstacle

degrees of primary indicators for the RTID in Hang-Jia-Hu region, and according to the characteristics of obstacle factors in the coupling coordination system, three obstacle types are identified: demand condition-dominated, industrial effect-dominated, and resource element-dominated. The obstacle degree model is used to calculate the obstacle degrees of the rural human settlements development system, obtaining the obstacle degrees at the primary indicator level. Based on the characteristics of obstacle factors in the coupling coordination system for rural human settlements, four obstacle types are identified: socio-cultural environment-dominated, economic environment-dominated, infrastructure environment-dominated, and ecological environment-dominated.

Over the ten years study period, the obstacle degree evaluation of the two systems yields the following conclusions: In Hangzhou, the obstacle degree ranking of subsystems is demand condition > industrial effect > infrastructure environment > resource elements > economic environment > socio-cultural environment > ecological environment, with average obstacle degrees of 0.3853, 0.3521, 0.3473, 0.2626, 0.2599, 0.2208, and 0.1721, respectively. According to the comprehensive ranking of individual indicators, three of the top five obstacle indicators belong to the rural tourism industry development index, summing to 0.5227, showing that system of the RTID is the key subsystem affecting the co-evolution of the RTID and RHSD.

In Jiaxing, the resource elements subsystem has the highest obstacle degree at 0.5099, making it the critical obstacle indicator. The obstacle degrees of all subsystems are relatively high, ranked as resource elements > economic environment > socio-cultural environment > demand condition > ecological environment > industrial effect > infrastructure environment, with average obstacle degrees of 0.5099, 0.3462, 0.3447, 0.3270, 0.1647, 0.1630, and 0.1444, respectively. According to the comprehensive ranking of individual indicators, the top two obstacles are both indicators within the rural tourism industry development system, suggesting that this subsystem has a relatively greater impact on coordinated system development. In Huzhou, the resource elements subsystem has the highest obstacle degree at 0.4722, making it the critical obstacle indicator. The obstacle degree ranking is resource elements > economic environment > industrial effect > socio-cultural environment > infrastructure environment > demand condition > ecological environment, with average obstacle degrees of 0.4722, 0.3603, 0.2902, 0.2843, 0.2699, 0.2376, and 0.0856. According to the comprehensive ranking of individual indicators, the sum of obstacle degrees for indicators belonging to the rural tourism industry development subsystem among the top five is 0.5728, more than twice the sum of obstacle degrees for the human settlements subsystem, reflecting that the system of RTID is the key subsystem affecting coordinated system development.

Table 6. Primary Indicator Obstacle Degrees for Rural Tourism Industry Development

City	Indicator	Year										Average
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Hangzhou	D	0.3691	0.3780	0.3919	0.3654	0.3954	0.3997	0.3929	0.3954	0.3624	0.4030	0.3853
	I	0.2987	0.3057	0.3219	0.3606	0.3292	0.3318	0.3384	0.3579	0.3921	0.4845	0.3521
	R	0.3322	0.3164	0.2862	0.2740	0.2754	0.2685	0.2686	0.2467	0.2456	0.1125	0.2626
Jiaxing	D	0.3160	0.3154	0.3164	0.3208	0.3259	0.3324	0.3389	0.3405	0.3321	0.3320	0.3270
	I	0.1830	0.1892	0.1893	0.1814	0.1881	0.1575	0.1416	0.1413	0.1329	0.1260	0.1630
	R	0.5010	0.4954	0.4944	0.4978	0.4860	0.5101	0.5195	0.5182	0.5351	0.5419	0.5099
Huzhou	D	0.3080	0.3090	0.3022	0.2998	0.2957	0.2392	0.2329	0.1796	0.1218	0.0885	0.2376
	I	0.2770	0.2832	0.2852	0.2877	0.2884	0.2920	0.2923	0.2929	0.2957	0.3074	0.2902
	R	0.4150	0.4078	0.4127	0.4125	0.4159	0.4688	0.4748	0.5276	0.5825	0.6042	0.4722

Note: D denotes demand condition; I represents industrial effect; R indicates resource elements.

Table 7. Primary Indicator Obstacle Degrees for Rural Human Settlements Development

City	Indicator	Year										
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
Hangzhou	S	0.2045	0.1990	0.1474	0.1756	0.1831	0.2374	0.2174	0.2576	0.2630	0.3225	0.2207
	E	0.3389	0.3446	0.3681	0.3558	0.3134	0.2144	0.1956	0.1906	0.1586	0.1189	0.2599
	I	0.2897	0.2939	0.3123	0.3153	0.3048	0.3802	0.3902	0.3625	0.4261	0.3978	0.3473
	L	0.1669	0.1625	0.1722	0.1534	0.1987	0.1680	0.1967	0.1893	0.1524	0.1608	0.1721
Jiaxing	S	0.3029	0.2986	0.3140	0.3318	0.3290	0.3660	0.3606	0.3772	0.3937	0.3735	0.3447
	E	0.3589	0.3661	0.3743	0.3669	0.3356	0.3186	0.3332	0.3460	0.3162	0.3459	0.3462
	I	0.2205	0.2202	0.2040	0.1919	0.1715	0.1525	0.1235	0.0958	0.0541	0.0102	0.1444
	L	0.1177	0.1151	0.1076	0.1094	0.1638	0.1630	0.1828	0.1809	0.2360	0.2705	0.1647
Huzhou	S	0.2320	0.2478	0.2631	0.2661	0.2890	0.2898	0.2835	0.3096	0.3191	0.3427	0.2843
	E	0.3662	0.3761	0.3801	0.3748	0.3432	0.3398	0.3569	0.3589	0.3618	0.3447	0.3603
	I	0.2760	0.2741	0.2628	0.2649	0.2718	0.2719	0.2727	0.2840	0.2710	0.2497	0.2699
	L	0.1258	0.1020	0.0941	0.0941	0.0959	0.0986	0.0868	0.0474	0.0482	0.0628	0.0856

Note: S denotes socio-cultural environment; E represents economic environment; I indicates infrastructure environment; L signifies ecological environment.

FINDINGS AND DISCUSSIONS

This study, based on the context of high-quality rural development, utilizes panel data from 2009 to 2018 in the Hang-Jia-Hu region. Firstly, it analyzes the current status of the RTID and RHSD, then establishes a coupling response model.

To ensure objective weighting, the entropy technique is adopted to evaluate the contribution of each rural tourism dimension. By constructing a comprehensive evaluation index system, the overall development levels of the RTID and RHSD are calculated. Drawing on previous research, a coupling coordination model is constructed to measure the level of interaction between the RTID and RHSD. To further clarify optimization directions for coordinated interactive development between rural tourism industry and human settlements, an obstacle degree evaluation model is introduced to assess the obstacle factors affecting their coupling coordination.

The overall development level of rural tourism and human settlements shows a gradual upward trend, with rural tourism industry development progressing more rapidly than human settlements. Before 2016, the overall development level of rural tourism in the Hang-Jia-Hu region was lower than that of human settlements, indicating a better foundation for human settlements in this area. However, starting from 2017, Hangzhou and Huzhou began to surpass human settlements in terms of rural tourism development, while Jiaxing remained in a lagging stage. Over ten years, Hangzhou has gradually widened its gap with Jiaxing and Huzhou, with Huzhou showing strong momentum and even surpassing Jiaxing in the later stages of the study period. With strategic planning and policy optimization aimed at high-quality rural tourism development, rural tourism will enter a new phase of growth, which will also strongly promote improvements in human settlements.

The coupling strength within the RTID and RHSD in the Hang-Jia-Hu region shows a fluctuating upward trend, consistently in the coordinated coupling stage. Before 2017, Hangzhou led in coupling degree over Jiaxing and Huzhou. However, with continuous optimization and summarization of the Huzhou model, Huzhou's rural tourism industry saw significant increases in coupling degree during 2013-2014, surpassing Hangzhou after 2017. Both RTID and RHSD need sustained efforts within the normalized coordinated coupling stage, extending the rural tourism industry chain and achieving panoramic layout to make human settlements improvement more dynamic and innovative.

Over the past decade, rural tourism and human settlement systems in the region have evolved in parallel, with growing evidence of mutual adaptation and functional integration. The Hang-Jia-Hu region has entered a stage of high coupling, indicating progressively optimized interaction and coordination. The average coupling coordination degree rose

from 0.4481 in 2009 to 0.7780 in 2018, with the coupling coordination of both subsystems gradually improving. Despite entering a high coupling stage, issues remain such as insufficient momentum for human settlements improvement and the need to enhance the effective conversion rate of human settlements into tourism resources. Thus, leveraging the advantages and distinctive development paths of rural tourism can establish a sustainable mechanism for coordinated development, enhancing the conversion rate of human settlements into tourism resources.

Over the ten-year study period, the key subsystem influencing coordinated development is rural tourism industry development. In Hangzhou, three out of the top five obstacle indicators belong to rural tourism development, summing up to 0.5227. In Jiaxing, the resource elements subsystem has the highest obstacle degree at 0.5099, ranking obstacles as resource elements > economic environment > socio-cultural environment > demand condition > ecological environment > industrial effect > infrastructure environment. For Huzhou, the resource elements subsystem has the highest obstacle degree at 0.4722, ranking obstacles as resource elements > economic environment > industrial effect > socio-cultural environment > infrastructure environment > demand condition > ecological environment. Among the top five obstacles, those belonging to the rural tourism development subsystem sum up to 0.5728, more than twice that of the human settlements subsystem, highlighting the critical role of rural tourism in system coordination.

In conclusion, The RTID and RHSD are strongly correlated. During their coordinated development, a complex coupling coordination system has emerged. Efforts should focus on enhancing rural tourism brands, optimizing supply-side structures, reinforcing unique positioning, and reasonably laying out new tourism formats to promote high-quality rural tourism development. Improving cultural environments and infrastructure, along with promoting multifunctional integration among primary, secondary, and tertiary industries, can elevate the quality of economic environmental development, thereby facilitating the implementation of high-quality human settlements strategies.

Based on the obstacle degree evaluation analysis, the high-quality integrated advancement of the RTID and RHSD primarily requires optimizing pathways in rural tourism brand building, enhancement and optimization of rural tourism products, improvement of rural tourism resource elements, and promoting multifunctional integration among primary, secondary, and tertiary industries.

Rural tourism branding represents the external appeal for high-quality coordinated development between rural tourism and human settlements. Establishing rural tourism brands in the Hang-Jia-Hu region requires both internal and external efforts to create market-recognized brands, bringing premium pricing and increased value to destinations. Internally, given the strong market demand for high-quality rural tourism products, enhancing product strength and service capabilities is crucial to meet market needs. Improving product strength involves leveraging the unique rural tourism resources of the Hang-Jia-Hu region, integrating traditional and new business formats, enriching the hierarchical structure of rural tourism products with local characteristics, creating personalized brands, and injecting new momentum into rural tourism products. Externally, emphasis should be placed on marketing and promotion, establishing brand management and operational mechanisms, actively responding to national policies for high-quality rural development, and utilizing new internet technologies to empower rural tourism marketing.

Rural tourism resource elements are fundamental and essential to the RTID and RHSD. As market promoters, service providers, and coordinators in rural tourism, travel agencies play an indispensable role. Their development should not only meet market demands quantitatively but also reform supply-side structures to enhance service standards, achieving

high-quality product and service offerings. Services should expand from rural life experience and sightseeing to include ecological wellness, leisure vacations, and high-end conferences. The development of agritainment and homestays should not only meet market demands in quantity but also focus on quality, with operators demonstrating craftsmanship, prioritizing visitor experience, building brand images, creating thematic atmospheres, actively engaging with target tourists, and enhancing visitor loyalty. High-quality tourist attractions are core drivers for rural tourism and human settlements development. A-level attractions, as premium resources in China's tourism industry, leverage their strong natural and cultural appeal to attract significant market interest. To increase the number of high-quality attractions in the Hang-Jia-Hu region, active integration into national development strategies, securing policy and financial support from local governments, and adhering to national standards for construction and service quality are essential. During supply-side structural reforms, emphasis should be placed on differentiated development and refining cultural excavation, distinctive features, and smart service experiences.

Considering the main obstacle factors in the Hang-Jia-Hu region, including rural employment, Engel's coefficient of rural households, and per capita output value of agriculture, forestry, animal husbandry, and fisheries (including services), the region should intensify vocational education for farmers and attract capable new farmers to return and start businesses, fostering a competitive and vibrant environment for integrated rural industry development. Utilizing local culture and natural resources to develop special industries, actively promoting innovation in rural industries, and facilitating the construction of new business formats for rural industry integration are essential. Rural tourism products should serve as platforms for offline interaction between rural areas and market audiences, while rural internet platforms ensure continuous market supply and services. Promoting the aggregation and development of rural cultural and creative industries is pivotal for fostering multifunctional integration and industrial innovation.

The Hang-Jia-Hu region should emphasize the improvement of rural living infrastructure, including optimizing rural healthcare systems, increasing the quantity and quality of medical technicians and beds, and promoting high-quality development in rural healthcare. Intangible cultural heritage is integrated into rural cultural environments and daily life. In the process of inheriting and developing intangible cultural heritage, the region should focus on cultivating and supporting talent, establishing channels for cultural dissemination and operational platforms, allowing rural cultural heritage to regain vitality. Rural education is an accelerator for sustainable rural development; the Hang-Jia-Hu region needs to increase investment in rural education and gradually optimize both hardware and software facilities. Rural public cultural facilities form the foundation of the rural socio-cultural environment and are a key component of the rural revitalization strategy. The completion of these facilities requires collaboration with local governments for funding, integrating the realities of rural tourism and human settlements development in the Hang-Jia-Hu region, equipping facilities such as rural libraries, cultural stations, and cultural centers, and cooperating with internet companies to establish digital public cultural facilities.

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EXAMINING THE MENTAL IMPACTS OF ATTENDING MUSIC FESTIVALS, A CHINESE GENERATION Z PERSPECTIVE

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INTRODUCTION

Music festivals and music-themed events have gained immense popularity in various destinations, drawing crowds of locals and distant fans alike. While existing studies primarily focus on the social and economic impacts of these events on host cities and local communities, there is a notable lack of academic attention on the effects of festivals on attendees themselves. Specifically, the mental and psychological aspects of attending music festivals remain largely unexplored. This study aims to investigate the experiences of Chinese Generation Z attendees, examining their mental gains and impacts associated with these events.

The specific objectives of this study are to:

1. Identify and categorize the mental impacts of music festivals on attendees.
2. Compare and contrast these mental impacts across different age groups of attendees.

By surveying 304 Chinese Generation Z music festival attendees, this study categorized the mental and psychological effects of music festivals into three distinct categories. The results indicate that the 25-28 age cohort expressed lower levels of agreement regarding these impacts compared to younger attendees. This research enhances our understanding of the multifaceted functions and effects of music festivals. More importantly, it provides valuable insights into the social contributions of these events for their direct customers---Generation Z attendees. This knowledge can assist Destination Marketing Organizations (DMOs) and event organizers in planning and designing programs that are more socially responsive to the needs of this demographic.

LITERATURE REVIEW

Impacts of Festival and Event on Destinations

The original purpose of many festivals or special events, according to Getz (1991), is to provide opportunities for the general population of a community to celebrate specific cultural or religious traditions. Moreover, the popularity of festivals and events over the past few decades has been driven by the potential benefits these festivals may bring to their host destinations. Several studies have focused on the impacts of special events on destinations, exploring cultural, environmental, community development, and, especially, economic perspectives (Pavlukovic et al., 2017; Zhou & Ap, 2009). It is widely acknowledged that festivals and special events play significant roles in providing local residents with job opportunities, increasing their incomes (Dwyer et al., 2000; Hudson et al., 2015), and enhancing the quality of life in host communities (Allen et al., 2005). Furthermore, festivals and events have the potential to improve or change the image of a destination. Tourists are often attracted to festivals and special events, which can enhance the positive image of these destinations. As the destination image improves, local culture, arts, heritage, conservation efforts, community growth, and the economy also benefit (Getz, 2011).

Conversely, festivals and events may also bring negative impacts to destinations. They can lead to traffic congestion, overcrowding, increased prices for goods and services, and even crime (Atçi et al., 2016; Dwyer et al., 2000). Studies by Collins et al. (2009) and Gursoy and Kendall (2006) have also indicated that events can contribute to environmental pollution, noise, and increased carbon dioxide emissions. These consequences impose significant obligations on event organizers and Destination Marketing Organizations (DMOs) to plan and execute their events in a manner that maximizes benefits while minimizing potential negative impacts.

Music Festivals' Impacts on Attendees' Mental Impacts

In contrast to the extensive attention given to the impacts of festivals and events on destinations from both academic and practical perspectives, the effects of events on individuals, specifically event attendees, have received considerably less focus. This study will concentrate on the impacts of events on individual attendees, specifically examining the effects of music festivals on participants. The authors believe that such an examination will enrich the understanding of the full range of event outcomes academically and contribute to better event strategies for both event organizers and DMOs.

The following literature review will examine the mental impacts of festivals and events on individual participants. Additionally, since this study will focus on the impacts of music festivals on their attendees, a systematic review of the role of music on individuals is also necessary to provide a more comprehensive foundation for the research. By reviewing relevant literature, a general framework regarding the mental impacts associated with music festival attendees will be established, providing a rational basis for the empirical study of this research.

Individuals may be impacted by the surrounding environment when participating in events. Key factors that constitute a festival's environment include event programs, information, atmosphere, and personnel. Selmi et al. (2021) identified these components as the "festivalscape," which can be partially likened to the term "servicescape" in a general service context. This concept can influence an individual's emotions and satisfaction (Lee et al., 2008; Lee & Cheng, 2017) and reflects how attendees experience the festival (Mason & Paggiaro, 2012).

Moreover, Ballantyne et al. (2014) posited that festivals and events provide attendees with an escape from their daily routines by allowing them to engage in new and different experiences, leading to greater self-understanding and reflection. These psychological benefits help explain why individuals tend to repeat attendance at the same festival or event and recommend them to friends (Cole & Chancellor, 2009; Yoon & Uysal, 2005).

Additionally, festivals and events provide attendees with a sense of identity, belonging, and unity (De Bres & Davis, 2001). According to Hodur and Leistriz (2006) and Hixson (2014), festivals or special events can serve as vehicles that gather people with similar interests at specific temporal and spatial occasions, fostering a sense of connection and unity. These gatherings also offer individuals opportunities to develop their identities, integrate into society, enhance self-esteem, and expand their social networks (O'Sullivan & Jackson, 2002; Filep et al., 2015).

Music has always played a significant role for individuals in human society, serving as a powerful form of expression and emotional influence. Pythagoras, the ancient Greek philosopher, suggested that music possesses numerous benefits for the human mind when utilized appropriately. According to Pascoe et al. (2005), music elevates the human spirit by promoting self-expression. Additionally, music enhances individuals' sense of enjoyment, beauty, and fulfillment in life and facilitates the release of negative emotions, such as stress and annoyance (Sakka & Juslin, 2018).

The emotional impact of music is profound. Hallam (2011) emphasized music's ability to affect emotions, which Koole (2009) categorized into negative and positive. Research by Juslin and Västfjäll (2008) indicates that positive emotions are more frequently experienced during music listening than negative ones. Positive emotions foster individuals' health benefits such as enhancement of resistance to illness and potentially extend lifespan (Richman et al., 2005), reshaping their perspectives on life, motivating them to set new goals and derive energy from these aspirations (Ellsworth & Smith, 1988; Smith et al., 1993).

Likewise, Music can balance negative emotions by fostering a sense of unity among participants in musical activities, which is crucial for stress protection (Linnemann et al., 2016; Tarr et al., 2014). Also, music can alleviate feelings of isolation (Rodero, 2020) and distract individuals from anxiety-inducing thoughts (Bernatzky et al., 2011; Chanda & Levitin, 2013; Sloboda et al., 2000). White (1985) and Moore and Schultz (1983) also held that music can help teenager to cope with environmental stressors and loneliness. Over time, it may lead ones to a more optimistic outlook.

Nevertheless, there are instances when music may evoke negative feelings. Marinda et al. (2012) highlighted that lyric can trigger painful memories, and listening to melancholic songs may exacerbate negative emotions, especially during low periods. Previous research has concluded that negative emotions can lead to detrimental health effects (Lustman et al., 1991). They may also prompt individuals to engage in harmful behaviors, such as smoking and excessive drinking, as a misguided attempt to alleviate stress (Kawachi et al., 1996; Kubzansky et al., 1997; Spielberg & Jacobs, 1982).

In general, music profoundly affects human mentality. It facilitates emotional expression and typically fosters positive feelings, contributing to psychological well-being, which includes self-understanding, life goals, and positive relationships (Ryff & Keyes, 1995). Additionally, social well-being—encompassing social coherence, integration, and acceptance—also benefits (Ryff & Keyes, 1995). Subjective well-being, characterized by happiness and life satisfaction, can also improve (Keyes et al., 2002). Yet, it is essential to recognize that music's impact is not universally positive; songs with sad themes may sometimes lead to negative emotional responses. Nevertheless, these songs are not commonly selected in music festivals. Thus, while music is a valuable tool for emotional and psychological enhancement, its effects can vary significantly depending on the context and content.

Research on the roles and impacts of music festivals and events has been limited; however, notable studies highlight their significance in fostering social connections. With their Australia music festival study, Packer and Ballantyne (2011) suggested that music festivals strengthen social bonds and alleviate feelings of isolation among participants. These events create opportunities for attendees to reflect on their identities and promote self-acceptance. Pascoe et al. (2005) indicated that attending music events enhances self-understanding and expands social circles, leading to increased life satisfaction (Ruvalcaba-Romero et al., 2017).

Linnemann, Strahler, and Nater (2016) emphasized the emergence of a sense of unity when individuals engage in musical activities together, which is crucial for stress reduction. Furthermore, participating in musical activities enhances one's sense of identity and fosters feelings of belonging, value, and necessity (Kahn, 1999; O'Neill, 2011). This engagement also improves communication skills, self-esteem, and self-identity (Taylor & McGruder, 1996; King, 2000; McCreesh, 2001; Raine and Ryan, 2002).

Music festivals are instrumental in uniting individuals from diverse backgrounds, as attendees are often motivated to connect with others who share similar interests. Duffy (2008) and Thongrom (2019) affirmed this notion, while Packer and Ballantyne's (2011) empirical study involving focus group interviews underscored that attending music festivals fosters unity and

a sense of belonging among participants. Sun et al. (2019) reported that many attendees find interactions with peers at music festivals to be among their most fulfilling experiences.

One common interaction at music festivals is singing in unison, akin to a choir. Clift and Hancox (2001) noted various advantages of singing, including relaxation, emotional well-being, and spiritual benefits. This was further supported by Dingle et al. (2012), whose interviews with choir members revealed that participants often feel energized, uplifted, and accomplished after participating in chorus activities. For many music festival attendees, singing together fosters a sense of group belonging, enhancing social interaction and providing participants with an additional social identity. This collective experience can mitigate feelings of isolation, which may lead to negative emotions such as anxiety and stress (Dingle et al., 2012). research noted that such interactions help individuals feel more integrated into society (Packer & Ballantyne, 2011), offering an escape from daily life pressures (Sun et al., 2019). these studies underscore the multifaceted benefits of music festivals, illustrating their capacity to enhance social connections and promote personal well-being among attendees.

Generation Z

Generation Z, typically defined as individuals born between the mid-1990s and early 2010s, represents a distinctive cohort shaped by unique cultural, technological, and social influences. This generation is characterized by its proficiency with digital technology, having grown up in an era dominated by social media and instant communication (Twenge, 2017). Research indicates that Generation Z is more socially conscious and diverse than previous generations, valuing inclusivity and equality, they face heightened levels of anxiety and stress, often attributed to social pressures and the impact of constant connectivity (Twenge et al., 2019). As consumers, Generation Z prioritizes authenticity and sustainability, influencing market trends and corporate practices (Fromm & Read, 2018). Understanding the attitudes and behaviors of this generation is crucial for educators, employers, and marketers aiming to engage effectively with them.

RESEARCH METHODS

The study utilized a quantitative research design, employing a questionnaire survey with recent music festival attendees. The target population consisted of Chinese Generation Z individuals (born between 1995 and 2007, excluding those under 18 years old). Participants were required to have attended music festivals within the last six months, ensuring the relevance and timeliness of the data collected. This approach allowed for a focused examination of the mental impacts of music festivals on this demographic.

A questionnaire was specifically designed for this study. Respondents were screened with questions about their music festival attendance in the previous six months. This was followed by a series of Likert-scale questions regarding their perceptions of the benefits and impacts of attending these festivals. The questions were measured on a seven-point scale, with 1 representing "Strongly Disagree" and 7 representing "Strongly Agree."

The questionnaire for this study comprised eighteen items to assess the mental impacts of attending music festivals. These items were adapted from existing literature, highlighting various psychological benefits associated with such events. Key themes explored in the questionnaire included the reduction of environmental stressors and loneliness (Moore & Schultz, 1983; White, 1985), alleviation of life pressures (Sun et al., 2019), and decreased feelings of isolation (Packer & Ballantyne, 2011). Moreover, the questionnaire examined the role of music festivals in fostering a sense of well-being (Dingle et al., 2012), promoting unity and belonging (Packer & Ballantyne, 2011), and assisting individuals in identifying personal life goals (Saragih & Amelia, 2020). It also addressed the enhancement of community

identification (Way & Robertson, 2013; Barrière & Finkel, 2020) and improvements in self-esteem and self-identity (Taylor & McGruder, 1996; King, 2000; McCreesh, 2001; Raine & Ryan, 2002). Additionally, attendees were asked about the impact of music festivals on their knowledge of music and local culture (Snell, 2005), experiences of relaxation (Taylor & McGruder, 1996; King, 2000; McCreesh, 2001; Raine & Ryan, 2002), and overall life satisfaction (Ruvalcaba-Romero et al., 2017). In addition, a section was included to gather socio-demographic information, such as gender, age, professional background, and work status.

The questionnaire was developed in Chinese and hosted on the Tencent Questionnaires platform. Information about the survey and the questionnaire link were shared with users who used the hashtag “音乐节” (music festival) across three popular social media platforms in China: Weibo, RedNote, and Douyin (the Chinese version of TikTok) to invite their participation. Data collection took place over a four-week period from February to March 2023, yielding a total of 304 valid responses. The average completion time for the questionnaire was about 3 minutes. The collected data was transferred to SPSS for further data management and analysis.

RESULTS

The respondent profile for this study, as summarized in Table 1, provides the general demographic information about the 304 participants. The majority of respondents were female, accounting for 80.6% of the sample, which may reflect a tendency for males to share less about their lives on social media platforms, or less willing to participate in such surveys. The age distribution reveals that a good proportion of participants among the targeted Z-generation youngsters, with 21.7% aged 18-20, 24.7% aged 21-22, and 31.9% aged 23-24. This aligns with the finding that 50.3% of respondents identified as students, suggesting that many attendees at music festivals are within the typical university age range.

Table 1: Respondent Profiles (N=304)

	Category	%		Category	%
Gender	Male	19.4	education	Middle School	0.3
	Female	80.6		High School	6.6
Age	18-20	21.7		Bachelor's Degree	70.1
	21-22	24.7		Master's & Above	14.1
	23-24	31.9		Others	8.9
	25-26	17.4		Student	50.3
	27-28	4.3		Part Time	0.7
Residence	Guangdong	24.0	employment	Full Time	37.8
	Zhejiang	19.1		Freelancer	7.2
	Jiangsu	12.8		Unemployed	0.7
	Macao SAR	5.9	Music Festivals attended	Others	3.3
	Fujian	5.9		Sunfun	23.2
	Hunan	5.3		Ayo	19.7
	The rest	27.0		Strawberry	11.2
				China Cool	7.9
				The others	38.0

In terms of education, 70.1% of respondents held a bachelor's degree, while 14.1% had a master's degree or higher. This high educational attainment among participants may suggest that music festivals attract individuals who are not only young but also well-educated. The survey also captured geographic diversity, with the highest representation from Guangdong Province (24.0%) and Zhejiang Province (19.1%). This concentration could be attributed to the numerous music festivals held in these regions over the past six months, making them more accessible to local residents. In addition, respondents reported attending a total of 19 music festivals when asked about their participation in the last six months. The most frequently mentioned festivals included the SUNFUN Music Festival in Nanjing (23.2%), the AYO Music Festival in Shenzhen (19.7%), and the Strawberry Music Festival, which is hosted in various cities (11.2%). These events highlight the popularity of music festivals among the Generation Z attendees and indicate a diverse range of experiences within the festival scene.

Table 2 reported respondents' general responses to the gains of attending music festivals. It revealed overwhelmingly positive sentiments. A striking 97.7% of participants agree that attending music festivals make them feel happy, indicating a strong emotional connection to these events. Additionally, 96.1% feel that music festivals help them forget their worries temporarily, highlighting their role as a form of escapism. The benefits extend beyond immediate happiness; 84.5% of respondents reported that participations in music festivals provide a more positive and optimistic perspective on life, reflecting that music festivals contribute to emotional well-being and mental resilience. Furthermore, more than two thirds (70.1%) of participants indicated that music festivals facilitate learning something new, pointing to their educational value in promoting cultural and musical knowledge. The findings underscored the multifaceted impact of music festivals on attendees, serving as a source of joy, relaxation, and personal growth, while also indicating potential areas for enhancing the social aspects of the festival experience.

To gain a comprehensive understanding of the mental impacts on music festival participants, an exploratory factor analysis was conducted to examine the underlying constructs of 18 impact items. Principal component analysis with Varimax rotation was employed to identify these underlying factors. The significant Bartlett's test of sphericity ($p < .001$) indicated sufficient correlations among the variables to proceed with the analysis. Additionally, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was .880, which is considered acceptable for factor analysis (Hair et al., 2006).

Communality statistics were calculated, and factors with an eigenvalue greater than one were retained for further interpretation. A cutoff score of .4 was applied to determine the inclusion of items within specific factors. Three items were deleted in the rotation process due to the cross-loading situations. The total variance explained by the rotated components matrix, which included 15 perceived impact items, was 63.20%, yielding three factors that contained between three to six items each. Reliability analysis, using Cronbach's coefficient, was conducted to assess the internal consistency of these factors. The Cronbach's coefficients ranged from .78 to .87, indicating that the items within each factor were clearly defined by their underlying themes and demonstrating internal consistency and stability, given the exploratory nature of this study (Hair et al., 2006). Detailed results of the EFA analysis are illustrated in Table 3.

The first factor comprised six items, which exhibited the highest eigenvalue (6.20) and accounted for the greatest individual variance (23.85% after rotation). The impact items included in this factor were: feeling happy, relaxed, forgetting worries temporarily, experiencing an enjoyable life, releasing negative emotions, and escaping from reality for a short time. These items predominantly reflect the positive psychological impacts associated

with music festival attendance. Consequently, this factor has been labeled as "Psychological Gains," highlighting the beneficial emotional effects that participants derive from their festival experiences.

Table 2 : Responses to the functions of music festivals (MFs) on respondents(N=304)

Statement	Agree (%)	Neutral (%)	Disagree (%)	Mean	Std. Dev.
MFs make me feel happy	97.7	2.3	0	6.49	.708
MFs make me forget worries for a while	96.1	3.0	0.9	6.39	.872
MFs make me feel relax	96.4	2.6	1.0	6.39	.861
MFs make me feel life more enjoyable	93.4	4.9	1.7	6.23	.947
MFs allow me to release negative emotions	90.8	7.6	1.6	6.13	1.056
MFs make me more positive perspective on life	84.5	10.9	4.6	5.78	1.250
MFs have made me more optimistic	82.2	13.5	4.3	5.74	1.208
MFs allow me to escape from reality for a while	78.3	11.2	10.5	5.63	1.538
MFs help me be more confident	76.3	19.8	3.9	5.62	1.259
MFs help me learn something new	70.1	24.7	5.2	5.35	1.314
MFs help me feel united and a sense of belonging	66.7	22.4	10.9	5.17	1.432
MFs make me gained more musical knowledge	63.2	28.6	8.2	5.14	1.358
MFs help me to understand myself better	66.8	19.4	13.8	5.09	1.538
MFs help me to meet like-minded people	65.4	22.4	12.2	5.08	1.471
MFs reduce my loneliness	62.5	20.4	17.1	5.04	1.722
MFs help me understand the culture of the host place	57.6	31.3	11.1	4.97	1.464
MFs make me gained more social knowledge	54.3	37.5	8.2	4.94	1.347
MFs improve my social network skills	48.4	31.9	19.7	4.56	1.483

Table 3: EFA Results of Mental Impacts on MF participations (n = 304)

Factor	1	2	3	Mean	Communa lity
Factor 1 : Psychological Gains					
MFs make me feel happy	0.82			6.49	.68
MFs make me forget worries for a while	0.80			6.39	.72
MFs make me feel relax	0.77			6.39	.60
MFs make me feel life more enjoyable	0.70			6.23	.61
MFs allow me to release negative emotions	0.57			6.13	.46
MFs allow me to escape from reality for a short time	0.53			5.63	.40
Factor 2 : Self Enhancement					
MFs help me be more confident		0.56		5.62	.57
MFs help me learn something new		0.65		5.35	.57
MFs help me feel united & a sense of belonging		0.56		5.17	.54
MFs help me gained more musical knowledge		0.84		5.14	.74
MFs help me understand the culture of the host place		0.80		4.97	.66
MFs help me gained more social knowledge		0.87		4.94	.80
Factor 3 : Social Networking					
MFs help me to meet like-minded people			0.85	5.08	.78
MFs reduce my loneliness			0.60	5.04	.55
MFs improve my social network skills			0.86	4.56	.80
Eigenvalue	6.20	1.98	1.30		
Variance explained (%)	23.85	23.77	15.60	Total: 63.22	
Cronbach's alpha (a)	.84	.87	.78		
Number of items	6	6	3		

Table 4: Impact Differences Among Three Age Groups (N = 304)

	Mean	Sig.
MFs reduce my loneliness		.003
18-22	5.29	
23-24	5.08	
25-28	4.42*	
MFs helped me to understand myself better		.025
18-22	5.22	
23-24	5.21	
25-28	4.64*	
MFs have given me more positive and optimistic perspective on life		.014
18-22	5.85	
23-24	5.95	
25-28	5.39*	
MFs make me feel united and a sense of belonging		.003
18-22	5.35	
23-24	5.26	
25-28	4.65*	
MFs help me be more confident		.026
18-22	5.76	
23-24	5.65	
25-28	5.26*	
MFs help me gained more social knowledge		<.001
18-22	5.18	
23-24	4.99	
25-28	4.38*	

Note: * significant low means

Factor 2 accounted for approximately 23.77% of the variance and comprised six items. These items included feeling more confident, experiencing a sense of unity and belonging, learning something new, gaining knowledge about music, and understanding the culture of the host place. The items within this factor relate to the enhancement of participants' knowledge and

attitudes, justifying its designation as the self-enhancement factor, was hence labeled as "Self Enhancement".

The final factor consisted of three items associated with social networking and was named "Social Networking." This factor explained 15.60% of the variance and included items such as meeting like-minded people, improving social networking skills, and reducing loneliness.

Together, these findings illustrate the multifaceted benefits of music festivals, emphasizing not only psychological and self-enhancement gains but also the importance of social connections among participants.

To gain deeper insights into how music festivals impact the mental well-being of different groups within Generation Z, a one-way analysis of variance (ANOVA) and Scheffé test were conducted (see Table 4). Respondents were categorized into three age groups: "18-22" (46.4% of the sample), "23-24" (31.9%), and "25-28" (21.7%). The analysis revealed six statistically significant differences between the groups, as indicated by the one-way ANOVA results ($F(2,301) = 2.70, p = .003$). The Scheffé post hoc test demonstrated that the "25-28" group was significantly less agree with all these six statements compared to the other two groups. The findings suggest that the 25-28 age group may have different life experiences and expectations regarding music festivals compared to the younger cohorts. As individuals in this age range often face increased responsibilities, such as career advancement and personal relationships, they may prioritize different aspects of festival experiences. This could lead to a more critical view of the emotional and social benefits associated with festivals. Additionally, their greater life experience may result in heightened expectations that festivals alone cannot fulfill, contributing to their lower levels of agreement with statements about loneliness reduction, self-understanding, and confidence enhancement.

DISCUSSIONS AND CONCLUSION

The results of this study underscore the significant positive mental impacts of music festivals, reinforcing findings from earlier research, such as that by Packer and Ballantyne (2011). By classifying these effects into three distinct categories--- "Psychological Gain," "Self-Enhancement," and "Social Network Impact" the study provides a comprehensive framework for understanding how festivals contribute to attendees' mental well-being. "Psychological Gain" reflects the emotional uplift participants experience, while "Self-Enhancement" highlights personal growth and self-awareness fostered through these events. "Social Network Impact" emphasizes the importance of community and connections formed during festivals. This classification enriches the existing literature by reinforcing the notion that festivals serve as vital sources of emotional and social enrichment but also highlights the diverse benefits they offer. Meanwhile it can be practically implemented by event organizers and policymakers. By acknowledging these multifaceted benefits, they can design more targeted and engaging festival experiences that maximize these positive mental outcomes that enhance attendees' mental wellbeing, thereby maximizing the social contributions of music festivals to communities and individuals alike.

The ANOVA analysis reveals that the 25-28 age group displays significantly more disagreement with six key statements regarding the benefits of music festivals, such as reductions in loneliness and enhancements in self-understanding and confidence. This divergence may stem from the fact that individuals in this age range often have entered the workforce, accumulating social knowledge and experience through their jobs. Unlike their younger counterparts, they may face the pressures of a fast-paced professional life, which could diminish the perceived value of festivals in addressing emotional needs. Moreover, many individuals in this cohort may be married or have established social circles, reducing

their dependence on festivals to expand their networks or alleviate feelings of loneliness. Instead, their motivations for attending music festivals might shift towards seeking relaxation and enjoyment during their leisure time. This nuanced understanding of age-related differences can help organizers tailor festival experiences to better meet the diverse needs of attendees across different life stages.

The findings of this research have significant practical implications for event organizers and policymakers within the music festival industry. Understanding the distinct mental impacts of festivals on different age groups, particularly the 25-28 cohort, allows for more targeted programming. Since this age group expresses lower agreement with statements regarding emotional and social benefits, organizers can focus on creating experiences that cater to their unique needs, such as opportunities for relaxation and enjoyment rather than social networking.

Additionally, the categorization of mental impacts into "Psychological Gain," "Self-Enhancement," and "Social Network Impact" can guide the development of festival activities that emphasize personal growth and emotional well-being. Tailoring marketing strategies to highlight these aspects may attract attendees who seek specific benefits. Ultimately, this research encourages a more thoughtful and responsive approach to event planning, ensuring that music festivals continue to provide valuable experiences that resonate with attendees across various life stages and social contexts.

The study owns its limitations. Conducted at the beginning of 2023, it coincided with the recent lifting of nationwide pandemic restrictions in China, meaning that many respondents had referred the music festivals they attended during the pandemic. This timeframe likely resulted in a limited variety of events and potential memory biases affecting their responses. As the festival scene emerges from the pandemic's shadow, future research should focus on more recent attendees for more reflective information about the roles and impacts of music festivals. Furthermore, given the scarcity of studies on the mental impacts of music festivals, this research addresses a critical gap and emphasizes the importance of exploring differences in motivations and experiences between Chinese and Western Generation Z attendees, as well as across various music genres.

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