MAPPING THE GREATER CHINA FILM FESTIVAL CIRCUIT: AN ACTOR-NETWORK THEORY APPROACH

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ABSTRACT

This study maps the Greater China Film Festival Circuit, focusing on the strategic roles played by major film festivals in Mainland China, Hong Kong, and Taiwan in constructing regional identity, cultural diplomacy, and global cinematic connectivity. Employing a Systematic Literature Review (SLR) methodology, the research is framed through Cultural Globalization Theory and the Circuit of Culture Model to investigate how these festivals navigate the intersections of regional representation and global film culture. The analysis examines the influence of both human and non-human actors organizers, governments, sponsors, platforms, and policies—in shaping festival networks, branding strategies, and communication practices. Beyond their strategic and political significance, these film festivals also function as vital cultural institutions that preserve, reinterpret, and project diverse Chinese cultural narratives. They serve as key sites for representing national and regional identities, fostering intercultural dialogue, and shaping how Chinese culture is perceived both domestically and internationally. Key findings reveal that festivals such as the Shanghai International Film Festival, Beijing International Film Festival, and Golden Horse Awards function as hybrid sites where global aspirations and hybrid platforms for international communication, cultural representation, and strategic positioning within global cinema networks. The study concludes that these festivals act as vital nodes within transnational cinema circuits, offering insights into how Greater China leverages cultural events to assert identity, soft power, and international relevance.

1. INTRODUCTION

1.1. Background of the Study

Film festivals have become critical platforms for communicating cultural identity, projecting soft power, and fostering international cinematic exchange. In Greater China—comprising Mainland China, Hong Kong, and Taiwan—film festivals function both as cultural showcases and as strategic tools for soft diplomacy. Recent studies emphasizes how these festivals navigate institutional frameworks and strategic communication agendas while innovating cultural communication strategies across regions 1,2. Mainland China's efforts, particularly through festivals like the Pingyao International Film Festival (PYIFF), demonstrate how the state supports creative industries while subtly shaping narratives to align with national interests 3. Festivals increasingly function as dynamic spaces where communication strategies blend artistic innovation and geopolitical messaging.

Film festivals can be viewed as cultural performances that blend spectacle, symbolism, and social interaction. Much like theater, they stage curated narratives that reflect collective identities and values. These public events engage audiences in ritualistic participation through screenings, red carpets, and Q&A sessions. In this way, festivals become performative spaces where cultural meaning is both constructed and displayed. Historically, the evolution of the film industry has been deeply rooted in the development of theater traditions and the role of the actor as a cultural communicator. The transition from live performance to screen not only preserved theatrical techniques but also expanded the reach of storytelling. Theaters served as early incubators of cinematic form, and actors have long been central to representing national and regional identities through their performances. This foundational relationship underscores the enduring cultural significance of both stage and screen in shaping audience perceptions and cinematic expression. Several changes in how people in Hong Kong communicate can be seen in the types of films screened during the Hong Kong International Film Festival (HKIFF). Over the years, HKIFF has sustained its status as an international film festival by combining films from both the East and the West 4. Even so, recent changes in politics after 2019 have made it harder for the museum to remain independent in its curation, which has meant it had to change its approach and strategies in both programming and marketing to support its global reputation and handle local issues 5. These

evolutions' reveal how film festivals innovate communication practices to respond to political pressures, while still maintaining engagement with global audiences.

Additionally, installation art has played a growing role in the film industry by enhancing audience immersion and expanding the boundaries of cinematic storytelling. Film posters, influenced by installation aesthetics, increasingly serve as standalone artistic expressions. These visual designs not only promote films but also reflect deeper cultural and conceptual themes embedded in the cinematic work. Taiwan's Golden Horse Film Festival and Awards represents one of the few remaining platforms with a steadfast commitment to honoring independent films, visionary filmmakers, and voices, willing to explore themes often avoided by mainstream institutions. It has achieved this in large part because, unlike so many awards occasions, a trophy from the Golden Horse is not dependent on the recipient's ability to play politics or kiss up to rich, powerful, and supposedly influential industry figures. Its communications stresses artistic excellence rather than political affiliations 6. They represent a case in branding adaptation and strategy within the increasingly contested cultural space that is Greater China. At the same time, the festival illustrates the ways in which cultural policy, festival innovation, and communication strategies integrate to create a regional film circuit among Mainland China, Hong Kong, and Taiwan.

1.2. Problem Statement

While film festivals in Greater China have grown significantly in cultural and political influence, there is a lack of comprehensive research mapping their interconnected circuits across Mainland China, Hong Kong, and Taiwan. Previous studies have focused mainly on individual festivals' programming strategies or political contexts 4, but few have analyzed how these festivals collectively operate as dynamic communication networks within the global cultural economy 7. Understanding the Greater China Film Festival Circuit through a networked perspective is essential to reveal underlying trends, strategic innovations, and shifts in cultural diplomacy, particularly in an increasingly politicized regional environment 8. This involves examining how festivals interconnect across regions, stakeholders, and borders, rather than viewing them in isolation. This research approach helps identify how films, filmmakers, policies, and cultural narratives circulate among festivals like SIFF, BJIFF, HKIFF, and the Golden Horse Awards.

1.3. Research Objectives

1. To analyze the network of key film festivals across Mainland China, Hong Kong, and Taiwan, identifying their interrelations and regional-global linkages.
2. To analyze the roles played by human and non-human actors (e.g., organizers, governments, sponsors, cultural policies, festival infrastructures) in shaping the Greater China Film Festival Circuit.
3. To compare and critically assess the communication strategies, cultural positioning, and innovation trends among major Greater China film festivals within the broader context of global cinema networks.

1.4. Significance of the Study

This research sheds light on how the film festivals in Mainland China, Hong Kong and Taiwan relate to each other through in-depth analysis. Through analyzing the actors in a region, it illustrates how these networks get shaped. Furthermore, juxtaposing the communication strategies with the innovation trends allows for a deeper understanding of how these festivals align themselves with the global cinema industry. These findings will feed into the academic discourse on cultural policy, transnational media flows, and festival studies. They will also serve to inform the festival practitioners and policymakers in charge of these events who are seeking to strengthen their cultural communication and international visibility.

2. LITERATURE REVIEW

2.1. Mapping the Greater China Film Festival Circuit

The film festival network in Greater China is continually developing, with its own characteristics altogether, across the film festivals in Mainland China, Hong Kong, and Taiwan. Several film festivals like Shanghai International Film Festival (SIFF), Beijing International Film Festival (BJIFF), Hong Kong International Film Festival (HKIFF) and the Golden Horse Film Festival in Taiwan serve as important platforms to highlight not just Chinese language films but international films as well. These festivals not only promote domestic films but also attract international productions, positioning themselves as significant nodes in the global film festival circuit 9.

The interrelations among these festivals are influenced by political, cultural, and economic factors. For instance, the Golden Horse Awards have faced boycotts from Mainland China due to political tensions, affecting cross- strait film collaborations 10. Conversely, initiatives like the Belt and Road Film Festival Alliance; spearheaded by SIFF, aim to strengthen China's cultural ties with other countries through cinema 11. Such dynamics underscore the importance of understanding the Greater China film festival circuit not just as isolated events but also as interconnected platforms reflecting broader regional and global linkages 12.

2.2. Film Festivals and Cultural Policy in Greater China

Film festivals in Greater China are deeply entwined with governmental cultural policies aimed at enhancing national soft power. The Chinese government's "Going Out" policy encourages the export of Chinese culture, with cinema being a key medium 13. Festivals like SIFF and BJIFF are state-supported events aligning with this policy by promoting Chinese films internationally and facilitating co-productions 14,15. These festivals serve as strategic tools for cultural diplomacy, projecting China's desired image on the global stage.

In Hong Kong and Taiwan, film festivals operate within different political contexts but still play significant roles in cultural policy. Hong Kong International Film Festival (HKIFF), while maintaining a degree of autonomy, has faced increasing scrutiny and censorship pressures, reflecting the broader political climate 16. The Golden Horse Film Festival, on the other hand, has become a symbol of Taiwan's cultural independence, often showcasing films that might be restricted in Mainland China 10. These variations highlight how film festivals in Greater China are shaped by and respond to their respective cultural policies.

2.3. Foundational Literature on Film as a Visual Art Form

In order to strengthen the visual and the aesthetic aspect of film, it becomes necessary to establish the study on a historical and current standpoint that renders the conceptualization of cinema as a visual art form. In Film Art: An Introduction, Bordwell, and Thompson17 pass a formalist concept that vivisects the working of cinematic techniques framing, mise-en-scène, cinematography and editing as an aggregate that direct the narrative and the visual meaning. In doing so, their method of analysis puts film as not only a vehicle of narration but as a visual art form, which must be subject to aesthetic interpretation.

Following this, Perić18 draws our attention to modern aesthetics of cinematography in the era of

digitalization, especially the aspects of generative arts and online reproduction. He explores the ways that machine-generated images and digital portraits are reshaping cinema and the movement of the image through the concepts of authorship and person-to-person identification, and questioning what the cinema can or will become. Combined, these texts link the antique film theory with the current technological innovations pointing to the importance of image beauty in the interpretation of both the traditional and new film practice.

2.5. Communication Strategies and Cultural Branding

Appropriate communications aid film festivals in promoting their own image and connecting with a variety of people. In Greater China, festivals apply several types of branding to separate themselves and draw interest from people around the world. For instance, SIFF highlights its positioning as a leading worldwide festival by presenting not just national but also an international cinema festival and by convening not just a handful of local filmmakers but also international panels of industry experts 15. In the same way, the HKIFF uses Hong Kong's diverse image to make itself a link between the East and the West 19. Taiwan's Golden Horse Film Festival uses its artistic reputation to bring in filmmakers looking for an alternative to the more commercial festivals across the Mainland China 20.

Beyond branding, communication at film festivals also unfolds through mediated discourse, audience interaction, and symbolic representation. Press releases, program notes, panel discussions, and social media campaigns act as strategic tools to frame the narratives of the films and the festival's identity itself. In the context of Greater China, such communicative efforts not only amplify visibility but also help navigate sensitive cultural and political terrains.

2.6. SoL Power and International Influence

International film festivals wield soft power, influencing how people see and understand one another. It can be seen that China using international film festivals for soft power, too especially by investing in them as part of a big-picture push to enhance its global cultural influence 13. China wants to use festivals such as the Shanghai International Film Festival (SIFF) and the Beijing International Film Festival (BJIFF) to show off a carefully selected or curated image of its culture, values, and artistic accomplishments. These festivals are supported by state-led communication strategies that selectively promote cultural narratives and global

collaborations to enhance national soft power 21.

Soft power refers to a nation's ability to influence others through attraction and cultural appeal rather than coercion or force. In the context of film festivals, it is exercised through storytelling, cultural representation, and strategic international engagement. Nonetheless, these soft power efforts are effective on some level. They may not entirely obscure the reality of China today, but they do project a better image of China than most people in China get to see.

2.7. Evolution and Diversification of Film Festivals in Greater China

The landscape of film festivals in Greater China has undergone significant transformation over the past decade, marked by diversification and increased international engagement. The Pingyao International Film Festival (PYIFF), established in 2017, exemplifies this shift by focusing on emerging filmmakers and fostering East-West cinematic dialogues 22. PYIFF's commitment to showcasing independent films from Asia, Europe, and Latin America underscores China's efforts to position itself as a nexus for global film culture 23.

Similarly, the Beijing International Film Festival (BJIFF) has expanded its scope to include a broader array of international films and industry forums. Recent editions have featured diverse lineups and global market discussions, reflecting China's ambition to integrate more deeply into international film networks 24. These developments signal a strategic shift toward enhancing China's cultural footprint through cinema, aligning with broader global soft power ambitions. By curating inclusive programs and fostering international collaborations, BJIFF serves both as a cultural showcase and as a diplomatic platform. It advances China's global image through carefully managed cultural messaging and strengthens its position within transnational cinema circuits.

2.8. Film Festivals as Instruments of Cultural Diplomacy

Film festivals in Greater China increasingly serve as potent instruments of cultural diplomacy. The Chinese government's "Going Out" strategy deliberately leverages festivals to disseminate Chinese cultural values and to foster soft power internationally 25. However, the effectiveness of this strategy is complicated by issues of censorship and tight political control, which can undermine the authenticity of cultural exchange 26.

International collaborations, though promoted,

often encounter barriers due to creative control demands and ideological oversight from authorities 22. As You24 observes, such festivals serve not merely as entertainment venues but as stages for symbolic messaging, global networking, and reputation management. Despite these tensions, the central government continues to invest in festivals as vital platforms for promoting a curated image of China's rising cultural influence on the world stage 24.

2.9. The Role of Independent and Niche Festivals

The cinematic landscape of Greater China is becoming more diverse, and independent and niche film festivals are pushing that forward. The queer film collective CINEMQ in Shanghai, offers much-needed visibility to different groups that do not fit the mainstream mold, challenging arbiters of official culture in the process. Events as if these and many more like them that happen under the radar are key to the Greater China's increasingly diverse cultural fabric. By showcasing queer narratives, underground documentaries, and experimental forms, such festivals create subversive communicative spaces that operate outside official endorsement. These events not only foster cultural diversity but also function as subtle forms of resistance to state-imposed aesthetic and ideological boundaries 27.

Furthermore, organizations such as the Chinese Independent Film Archive (CIFA) are helping to maintain politically sensitive works that would otherwise be lost to state censorship 27. Such activities are certainly contributing to at least a part of the preservation of politically sensitive alternative narratives. Despite immense challenges, these efforts highlight the resilience of China's independent film culture and its importance within the broader global cinema network 28.

2.10. Challenges and Opportunities in Global Engagement

While film festivals in Mainland China have expanded internationally, they still face several critical challenges. Censorship laws and political sensitivity often restrict the diversity of films shown, thereby reducing the festivals' global credibility and attractiveness. This limited content diversity affects not only the creative integrity of festivals but also undermines their credibility in the eyes of international audiences and filmmakers. The prioritization of state narratives over independent expression has deterred many international filmmakers from participating 28.

Nonetheless, these festivals also present opportunities. The strategic use of digital platforms post-pandemic has widened the audience reach, allowing festivals like PYIFF to connect globally even amidst political constraints 27. Online programming allows for more diverse audience engagement, while also offers a discreet avenue for showcasing semi-independent films that may not gain approval for physical screenings. Moreover, the inclusion of nuanced, locally grounded narratives, especially those that reflect cultural specificity without overt political messaging, provides a strategic middle ground. These stories can appeal to global audiences while still aligning with domestic cultural policy, thus helping Chinese festivals rebuild trust and relevance within the international circuit 24. Furthermore, by gradually allowing more nuanced local stories and semi-independent productions, there is potential for these festivals to rebuild broader global interest 24.

2.11. Theoretical Framework

This research relies on the Cultural Globalization Theory and the Circuit of Culture Model to study the Greater China Film Festival Circuit. Cultural Globalization Theory, as formulated by Appadurai29, asserts that global cultural flows affect local cultural products. This empowers festivals in Mainland China, Hong Kong, and Taiwan to sift through dominant global cinematic trends and select what best suits their regional cultural identities. The Model of the Circuit of Culture by Du Gay, et al.30 concentrates on where, how, and in what forms culture is produced and consumed; who is consuming and producing it; and why and where these acts of production and consumption are taking place. This study also incorporates Actor-Network Theory (ANT), which provides a lens to analyze how both human and non-human actors co-construct the film festival circuit. ANT, as developed by Latour31, avoids privileging any single element and instead focuses on the relational networks that produce social outcomes.

2.12. Literature Gap

Although prior research has explored individual film festivals in Mainland China, Hong Kong, and Taiwan, few studies have mapped the Greater China Film Festival Circuit as an interconnected network. Most existing literature focuses separately on the political economy of specific festivals, soft power strategies, or cultural branding, without analyzing how these festivals collectively interact across regional and global spaces. Additionally, previous studies have rarely applied communication-centered

theories, such as Cultural Globalization Theory or the Circuit of Culture Model, to explain how festivals negotiate identity, representation, and cultural diplomacy. This study addresses these gaps by offering an integrated, communication-focused analysis.

3. METHODOLOGY

3.1. Research Method

This study employed a qualitative research approach through a Systematic Literature Review (SLR). Qualitative method is appropriate for this study as it permits an intensive analysis of current literature and learning the Greater China Film Festival Circuit. The research does not collect direct empirical data, but holistically examined and synthesized previous research to obtain deep insights of the topic.

3.2. Research Design

The study adopted a Systematic Literature Review (SLR) design, which provides the structured, comprehensible and replicable data collection and analysis. Given the intent for its rigorous and objective approach in reviewing scholarly work.

In order to maintain a transparent and unbiased selection of studies, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework is used to systematically identify, screen and select studies that are relevant.

3.3 Data Collection

3.3.1. Search Strategies

To retrieve relevant peer-reviewed studies, a comprehensive search is conducted across four major academic databases

- Scopus
- Web of Science
- Researchgate
- Google Scholar

3.3.2. Keywords

Identified relevant studies that directly addressed the research objectives depend on keyword research. The study selects keywords like 'Greater China film festivals', 'film festival networks', 'cultural communication', and 'cultural diplomacy in cinema'. Boolean operators (AND, OR, NOT) also improve precision and help refine the search. For example, "Greater China" AND "film festivals" AND "communication strategies". While "cultural diplomacy" OR "soft power" specifies broader applications related to international influence.

Furthermore, filters such as "film festival circuit" and NOT "purely technological media studies" eliminate irrelevant technical studies.

3.3.3. Database Research

Keeping with the academic rigor, the studies are drawn from Scopus, Web of Science, Research gate, and Google Scholar, as these are peer reviewed and has a high impact research on China film festivals. Reducing bias and access to a variety of databases helps capture many perspectives.

3.4. Inclusion and Exclusion Criteria

Table 1: Inclusion and Exclusion Criteria for SLR.

Criteria	Inclusion	Exclusion
Type	Peer-reviewed articles and empirical studies because they are credible and indexing high impact journals	Non-peer reviewed articles, opinion articles, non- empirical studies to avoid bias and misinformation.
Focus	Studies focusing on university students' adoption and perceptions of cognitive skills	Studies unrelated to the research focus.
Language	Articles published in English because most high-impact leadership journals publish in English.	Articles published in other languages than English
Date Published	Year 2016-2025, because it captures the most recent advancements and trends in film festivals in Greater China.	Before 2016 to avoid the outdated data.

3.5. PRISMA Framework

To ensure transparency and replicability, this study followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework as shown in Figure 1. The four-stage PRISMA process includes

- **Identification** A total of 45 studies dealing with Cheongsam in academic and professional communication are retrieved through initial database searches.
- **Screening** The relevance of the 28 remaining studies is then screened by the year published before 2016 and titles and abstracts to the objectives of the research.
- Studies are excluded that focus only on the collision of luxury and tradition: middle-aged female consumers' cognition and preference for high-end cheongsam design
- After screening, 12 studies are shortlisted.
- **Final Selection** 12 most relevant studies are subjected to thematic analysis and grouped in accordance to key themes and findings:
- AI adoption trends

- Impact on academic writing and communication
- Ethical concerns and pedagogical challenges

The PRISMA framework ensures the systematic, transparent, and unbiased selection of studies by adhering to a structured process that incorporates rigorous screening procedures to minimise bias and uphold the quality and relevance of the research. Furthermore, PRISMA enhances transparency and replicability, enabling future researchers to verify the findings as shown in figure 1.
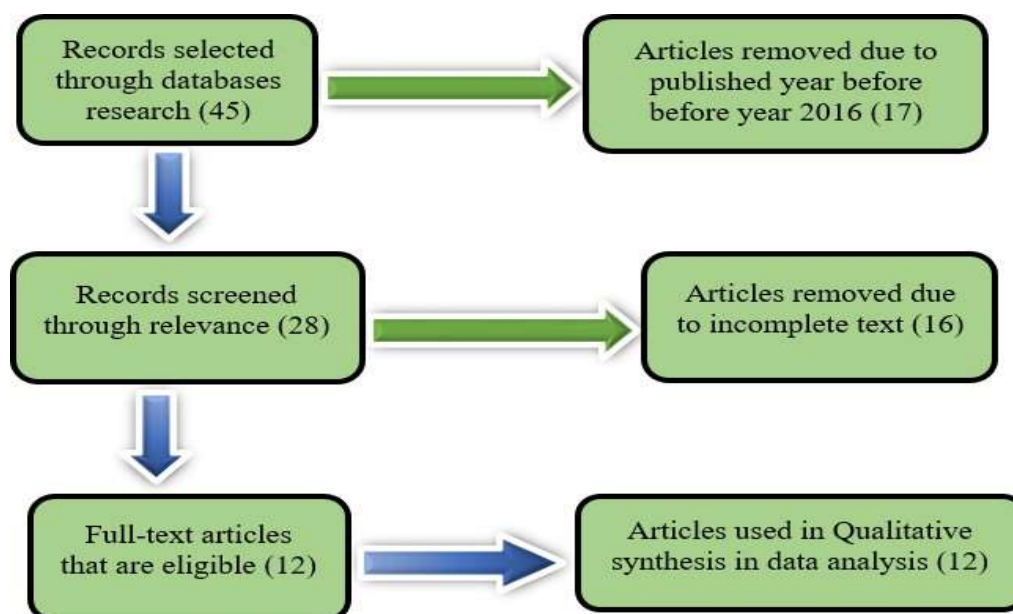

Figure 4: PRISMA Framework.

3.6. Data Analysis Method

The study employs thematic analysis to explore this data. Below is the table 2 explaining the process involved in it.

Table 2: Thematic Analysis Steps.

Steps	Description
Familiarization	It includes reading and re-reading of all the collected dated.
Initial codes	Generating initial codes from the data by highlighting key points, concepts, and ideas relevant to the research objectives.
Initial themes	Codes are then grouped to develop the broader themes.
Reviewing themes	Themes are reviewed to ensure that they are not distracted from original research focus and objectives.
Defining and Naming themes	According to the focus of the data collected, it include defining and naming themes according to the context of the content of the articles selected.
Producing the Report	Utilize these themes in data analysis and discussion

3.7. Ethical Considerations

This study carefully considered ethical standards during the selection and review of literature. Only peer-reviewed journal articles, academic books, and reputable sources published after 2016 were included to ensure credibility and relevance. Studies were selected based on transparency of methodology, clear research objectives, and ethical reporting of data without political bias or manipulation. Research involving misinformation, unpublished data, or non-academic platforms was excluded. All sources were accurately cited to maintain academic integrity and to respect the intellectual property of original authors. Special attention was given to avoid regional or ideological bias when evaluating studies from Greater China.

4. RESULTS

The below table 3 presents three main themes derived from the research objectives, offering a comprehensive and structured lens to analyze the Greater China Film Festival Circuit.

Table 3: Thematic Analysis.

Themes	Description
Regional-Global Linkages of Greater China Film Festivals and integration of Global Cinema Networks	This theme explores how film festivals in Mainland China, Hong Kong, and Taiwan interconnect regionally and integrate into global cinema networks.
Influence of Human and Non-Human Actors in Festival Networks	This theme examines how organizers, governments, sponsors, policies, and infrastructures shape the structure and dynamics of the Greater China Film Festival Circuit.
Communication Practices, Cultural Branding, and Global Positioning of Greater China Film Festivals	This theme examines how Greater China film festivals use communication and branding strategies to engage audiences and build international recognition.

Theme 1: Regional-Global Linkages of Greater China Film Festivals and integration of Global Cinema Networks The results of the studies in Table 4 reveal that Greater China's film festivals function as hybrid communicative platforms. Zhu[32] finds that they balance regional identity with national soft power. Wang, et al.[3] show PYIFF navigates political limitations while enabling international engagement.

Robinson[33] emphasizes the value of informal communication networks in linking regional festivals to global circuits. Liu, et al.[25] demonstrate that cultural adaptation, localization, and branding are key to enhancing global visibility. Collectively, these studies highlight the strategic communicative role of festivals in promoting China's cultural narratives internationally.

Table 4: SLR for Regional-Global Linkages of Greater China Firm Festivals and Integration of Global Cinema Network.

Study	Objectives	Methodology	Data Analysis and Results	Conclusion
Zhu[32]	To examine how film festivals in the Greater Bay Area serve as tools for cultural diplomacy and global engagement.	Qualitative case study analysis of festivals within the Greater Bay Area using cultural diplomacy frameworks.	Festivals act as dual communicators of local identity and state-driven narratives, balancing soft power diplomacy with regional uniqueness.	Film festivals in the Greater Bay Area effectively serve China's soft power initiatives while maintaining selective regional distinctiveness.
Wang, et al.[3]	To analyze the cultural and political dynamics of the Pingyao International Film Festival and its integration into China's film landscape.	Case study approach focusing on PYIFF through interviews, archival research, and secondary data analysis.	PYIFF positions itself uniquely among Chinese festivals, offering a semi-independent platform within a politically sensitive environment.	PYIFF plays a hybrid role, balancing political constraints with artistic ambitions, enhancing China's film diplomacy capabilities.
Robinson[33]	To investigate how specialist Chinese-language film festivals in London build global festival networks and connections.	Qualitative interviews and market research observations at film festivals and sales markets.	Networking activities, personal relationships, and informal collaborations are crucial to connecting regional festivals with global circuits.	Building and maintaining human connections is critical for small festivals to integrate successfully into the global film festival ecosystem.
Liu, et al.[25]	To explore strategies for enhancing the global communication and influence of Chinese film and television.	Document analysis, literature review, and strategic analysis regarding international communication strategies.	Adapting content to local tastes, improving translation, and strategic marketing are key to better globalizing Chinese film and TV.	Strategic communication and cultural adaptation are essential for the successful internationalization of Chinese film and television content.

Theme 2: Influence of Human and Non-Human Actors in Festival Networks The studies under Theme 2 show that human and non-human actors collaboratively shape film festival dynamics.

Spöhrer, and Ochsner[34] demonstrate that ANT effectively explains media networks of human and technological elements. Marchetti[35] highlights how

digital platforms and festivals enable wider audience reach. Ran[36] finds that SIFF prioritizes state-led branding over local culture, influenced by policy. Nakajima[12] reveals how human (filmmakers, audiences) and non-human (films, venues) actors sustain independent networks despite censorship. Together, these findings underscore how

communication infrastructures and power structures co-create the festival experience in politically sensitive contexts.

Table 5: SLR for Influence of Human and Non-Human Actors in Festival Networks.

Study	Objectives	Methodology	Data Analysis and Results	Conclusion
Spöhrer, and Ochsner[34]	To apply Actor-Network Theory (ANT) to media studies by analyzing the interaction between human and non-human actors in media environments.	Theoretical framework analysis and case studies across various media applications, using ANT principles.	Found that media networks consist of heterogeneous actors where both human (producers) and non-human (technologies, platforms) components interact to create meaning.	Actor-Network Theory provides a comprehensive lens to analyze complex interactions between human and technological agents in media systems.
Marchetti[35]	To explore how Hong Kong filmmaker Ann Hui utilized film festivals and digital technologies to distribute and shape the reception of her short film *My Way*.	Case study analysis of film production and distribution strategies focusing on festival circuits and digital platforms.	Revealed that digital platforms and international film festivals collectively shaped the storytelling process and enhanced cross-cultural circulation of Hui's film.	Strategic use of film festivals and digital storytelling platforms enables filmmakers to reach broader, more diverse audiences beyond local borders.
Ran[36]	To analyze how the Shanghai International Film Festival constructs an international identity influenced by political and organizational forces.	Historical and critical analysis of the Shanghai International Film Festival using archival sources and media reports.	Identified the role of government influence and cultural policies in prioritizing international branding over local cultural authenticity at SIFF.	The Shanghai International Film Festival serves more as a political project of international visibility than a celebration of Shanghai's local cinematic culture.
Nakajima[12]	To explore how human and non-human actors collaborate in independent film consumption and festival-like environments in urban China using Actor-Network Theory.	Qualitative case study applying Actor-Network Theory (ANT), including fieldwork observations, interviews, and document analysis in Beijing's independent film scene.	Found that human actors (filmmakers, audiences) and non-human actors (films, DVDs, screening venues) create dynamic networks that help shape civil society despite government censorship.	Independent film networks in China are shaped through interactions between human and non-human actors, demonstrating the resilience and adaptability of cultural communities under political constraints.

Table 6: SLR for Communication Practices, Cultural Branding, and Global Positioning of Greater China Film Festivals.

Study	Objectives	Methodology	Data Analysis and Results	Conclusion
Xu, and Reijnders[37]	To explore the motivations and experiences of audiences encountering industry professionals at the Shanghai International Film Festival and its impact on cultural branding.	Qualitative study based on interviews and audience reception analysis at SIFF.	Found that encounters with film professionals enhance audience engagement, contributing to SIFF's image as a global cultural platform.	Personal engagement with industry professionals at SIFF strengthens the festivals branding and global positioning.
Pollacchi[7]	To analyze the Beijing International Film Festival's role in connecting China's national cinema with global film festival networks.	Case study analysis of BJIFF's organizational structure, promotional strategies, and international engagement.	Found that BJIFF mirrors top international festival structures while promoting Chinese cinema to enhance national soft power.	BJIFF serves as a cultural branding instrument blending domestic industry promotion with global positioning ambitions.
Xiao, and Jin[38]	To investigate how the Pingyao International Film Festival contributes to the branding and global positioning of a small Chinese city.	Qualitative analysis based on case study of Pingyao festival's branding efforts, city promotion strategies, and audience engagement.	Revealed that the Pingyao festival successfully enhances the city's international cultural profile, aiding regional economic development.	The Pingyao International Film Festival acts as an effective cultural branding mechanism for smaller Chinese cities.
Leung, and Lee[39]	To explore the evolving landscape of the Chinese film industry, focusing on internationalization, cultural branding, and the role of film festivals in global positioning.	Qualitative review and analysis of industry reports, policy documents, and case studies related to Chinese cinema and film festivals.	Identified strategies employed by Chinese film festivals and authorities to enhance the global circulation of Chinese films and to build cultural branding on an international scale.	Film festivals act as vital platforms for China's cultural diplomacy, strengthening the global presence of Chinese cinema through strategic communication and branding initiatives.

Theme 3: Communication Practices, Cultural Branding, and Global Positioning of Greater China Film Festivals Studies under Theme 3 demonstrate how Greater China film festivals strategically use communication and branding to gain global recognition. Xu, and Reijnders[37] show SIFF boosts global appeal by enhancing audience engagement through professional encounters. Pollacchi[7] finds BJIFF replicates international formats while projecting Chinese soft power. Xiao, and Jin[38] illustrate how the Pingyao festival builds international visibility for small cities through branding. Leung, and Lee[39] identify broader national strategies aligning festival branding with China's global cultural diplomacy goals, emphasizing how festivals function as communication hubs in shaping national identity and soft power narratives.

5. DISCUSSION

Regional-Global Linkages of Greater China Film Festivals and integration of Global Cinema Networks Zhu[32] emphasizes that film festivals in the Greater Bay Area, particularly those in Hong Kong act as platforms for cultural diplomacy, and strategically mediating between local cultural identities. This directly reinforces how SIFF and BJIFF extend beyond displaying domestic cinema to promoting China's geopolitical narratives [15]. Zhu[32] findings reflect the way regional festivals contribute to China's global cultural strategy while simultaneously expressing regional uniqueness, especially when positioned against Taiwanese festivals such as the Golden Horse Awards. These diplomatic functions are made possible through curated film selections and multilingual programming, both of which serve as intentional communication tools. The festivals thus construct narratives that signal cultural confidence and modernity to international audiences.

The work by Wang, et al.[3] on the Pingyao International Film Festival (PYIFF) offers a ground-level case study of how regional festivals engage with international cinema networks while operating within political constraints. Their study supports earlier observations by Yishan, et al.[23] on PYIFF's semi-independent positioning, suggesting that such festivals play an increasingly important role in expanding China's soft cultural infrastructure. These linkages are reinforced through strategic messaging in festival branding and the inclusion of global industry panels that promote cross-cultural dialogue. Communication thus becomes a mechanism through which PYIFF balances local expression and global

visibility.

Robinson[33] complements this perspective by shifting focus to overseas Chinese-language festivals and the informal personal networks that connect them with domestic events. Her findings illustrate how relational and people-driven linkages—often overlooked in top-down cultural policy analyses—significantly shape how Greater China's film culture interfaces with global cinema circuits. This directly expands on Nakajima[12] view of festivals as co-dependent transnational networks and aligns with the literature's discussion of alternative global engagement mechanisms beyond state-managed diplomacy [40]. Robinson[33] perspective thus enriches the understanding of how Greater China festivals are embedded within broader global circuits not just institutionally, but socially. Through digital platforms, media outreach, and interpersonal exchanges, Robinson emphasizes how communication acts as an invisible infrastructure that sustains global connectivity.

Liu, et al.[25] point to communication strategies and cultural adaptation such as localizing the language, creating powerful symbols, and appealing across cultures as crucial for the global spread of Chinese films. This goes along with that, the literature review states about SIFF and BJIFF hosting global seminars and the first showing of works You[24], which serves to emphasize the not-so-simple art and science of international brand positioning in the global film market. This contends that the triumph of regional Chinese celebrations in international market largely pivots on their natural skill for securing an identity. The study reveals that success in international film markets hinges not only on content but also on how effectively festivals narrate their identities. These curated communications help situate Greater China's festivals as recognizable and influential voices in global cinema discourse.

5.1. Influence of Human and Non-Human Actors in Festival Networks

Spöhrer, and Ochsner[34] gave a foundational understanding of Actor-Network Theory (ANT) in media environments. They conceptualize the interaction between human and non-human agents—that is, the interaction between people and technology. The theoretical insights they offer serve as a valuable lens through which to study the structure of ecosystems for film festivals. ANT helps expose the often-overlooked communicative infrastructure of film festivals, showing the message of the festival and its cultural branding is shaped not only by people, but also by the non-human

technologies and structures through which those messages are conveyed 41.

In this interaction, Marchetti35 provides a case study of the Hong Kong filmmaker Ann Hui and her short film "My Way". Marchetti35 illustrates how the digital storytelling platforms and international film festivals make up a collaborative interrelationship that shapes the global reception of Hui's film. In the film "My Way" both the filmmaker and digital media platforms who are, non-human actors co-create cross-cultural visibility, offering practical evidence for ANT's application. Communication in this case is not only mediated through digital formats but is central to how cultural stories reach transnational audiences 19.

Ran36 analyzes how government institutions and cultural policy, as non-human actors, shape SIFF's global positioning. While aligning with state branding goals 13, SIFF often suppresses local authenticity, reflecting tensions between political compliance and cultural expression 28. These tensions directly affect SIFF's communication strategies, which must balance domestic narratives with international appeal. Peaslee41 supports this by viewing festivals as "boundaried spaces" where communication is co-produced through institutional control and media infrastructure. Together, these studies reveal how SIFF's messaging is carefully managed to maintain cultural diplomacy while adapting to global storytelling expectations.

Finally, Nakajima12 offers insight into Beijing's independent film scene, demonstrating how independent festivals survive and adapt within politically constrained environments. His study, grounded in ANT, shows how human (filmmakers, audiences) and non-human (DVDs, screening spaces) actors co-construct civil society through cultural networks. This bottom-up network formation contrasts with the state-led logic discussed by Ran36, instead aligning with newer discourses around cultural resilience and community building under restriction. Communication here operates through informal and decentralized channels, enabling resistance to censorship and fostering alternative public discourse. The interaction between human creativity and the affordances of media technologies underscores how communication under constraints becomes a tool of cultural survival.

Communication Practices, Cultural Branding, and Global Positioning of Greater China Film Festivals Xu, and Reijnders37 emphasize the experiential and relational aspects of festival branding through audience engagement at the Shanghai International Film Festival (SIFF). The

direct interactions with the industry professionals enhances the audience perception of SIFF festival on a global platform. This finding works well aligned with the earlier literature that argues SIFF's construction as an international platform is more than mere programmatic content. The previous literature such as of Wallis, and Balsamo15 entertains the notion that SIFF's construction as an international space has much to do with the audience's affective responses to the festival. Such immersive experiences, as the literature notes, become branding tools in themselves—humanizing the festival and solidifying its reputation in global circuits.

Pollacchi7 contributes to this understanding by focusing on the Beijing International Film Festival (BJIFF), showing how the festival mirrors global promotional structures while advancing China's national soft power agenda. His work bolsters earlier contentions that gatherings such as the BJIFF have two aims in mind: to satisfy foreign demands and to put out the good national story that the BJIFF is actually about 13,28. The literature similarly notes that BJIFF, while promoting global engagement, often does so within the confines of state ideology, creating a branded experience that is polished yet politically curated. This dualism speaks to the complexities of cultural diplomacy through film, where branding is both expressive and strategic.

Xiao, and Jin38 shift the lens to smaller regional platforms like the Pingyao International Film Festival (PYIFF), showing how they contribute to the branding of emerging urban centers. The literature broadly trends toward a theme of diversification in China's film festival ecosystem, and this study firmly places itself on that trend. The study is affirmative of a pre-existing narrative but nuanced in how it approaches that narrative. Feng22 study affirms that local film festivals serve not just to rebrand but also to coordinate cultural development. The strategic branding of Pingyao an otherwise modest cultural locale—demonstrates that film festivals are becoming tools for regional identity transformation and international recognition. These insights expand the scope of branding beyond national capitals to include smaller nodes in the cultural network.

Berry (2019) encapsulates the macro-level implications of these festivals, arguing that film festivals function as key vehicles for global cultural communication and branding. His analysis aligns with the literature's emphasis on internationalization efforts by BJIFF and SIFF, as well as the branding autonomy of Taiwanese festivals like the Golden Horse Awards 20. It is found that branding success in Asian film festivals relies on alignment with

international industry norms while maintaining culturally rooted messaging. Together, these studies affirm that branding and communication strategies in Greater China's film festivals are central to their global positioning, and they play an increasingly strategic role in China's broader cultural diplomacy agenda.

5.2. Theoretical Implications

The integration of Cultural Globalization Theory, the Circuit of Culture Model and ANT (Actor Network Theory) offers a robust conceptual lens to examine the Greater China Film Festival Circuit. Cultural Globalization Theory reveals how these festivals function as arenas where global cinematic flows intersect with local cultural identities, allowing organizers to selectively adopt, resist, or adapt international norms. Meanwhile, the Circuit of Culture Model enriches this understanding by dissecting the interconnected processes of representation, identity, production, consumption, and regulation. This combined framework illuminates how festivals not only brand themselves globally but also negotiate cultural meaning within politically nuanced contexts. Complementing further, Actor Network Theory (ANT) provides a framework to explore the dynamic relationships between human actors (e.g., organizers, audiences) and non-human actors (e.g., digital platforms, policies, venues) that shape the festival ecosystem 31.

5.3. Limitations and Future Directions

While this study offers a conceptual and comparative analysis of key film festivals in Greater China, it is limited by its reliance on secondary sources and theoretical interpretation rather than primary fieldwork or empirical data. The research focuses predominantly on prominent festivals, which may overlook the role of smaller or emerging grassroots festivals in shaping regional cultural narratives. Additionally, the fast-changing political and cultural environment in Mainland China, Hong Kong, and Taiwan presents challenges in capturing current dynamics comprehensively. Future studies should incorporate interviews with festival organizers, audiences, and policymakers to provide deeper insights. Longitudinal and cross-regional comparisons with other Asian or international festival circuits could further enhance understanding of evolving communication strategies and cultural branding in transnational cinema.

6. CONCLUSION

This study has mapped the interconnected landscape of film festivals across Mainland China, Hong Kong, and Taiwan, demonstrating how they serve as vital tools for cultural diplomacy, regional branding, and global positioning. By applying Cultural Globalization Theory and the Circuit of Culture Model, the research shows that Greater China's film festivals are not isolated cultural events but strategically embedded nodes in transnational networks. These festivals actively balance global cinematic norms with regional identities while navigating political structures and communication strategies. Through systematic literature analysis, the study highlights the hybrid nature of these festivals as both cultural and political actors. This research contributes to a deeper understanding of soft power mechanisms in East Asian media circuits.

REFERENCES

Chan, Felicia. *Cosmopolitan Cinema: Cross-Cultural Encounters in East Asian Film*. Bloomsbury Academic, 2017. https://www.bloomsbury.com/uk/cosmopolitan-cinema-9781780767222/
De Valck, Marijke. *Film Festivals: From European Geopolitics to Global Cinephilia*. Amsterdam University Press, 2007. Film Culture in Transition. https://library.oapen.org/handle/20.500.12657/35273
Wang, Qi; Syed, Md Azalanshah Md; Liu, Sicheng; and Ibrahim, Muhamad Shamsul. "Figuring the Chinese Film Festivalscape: The Pingyao International Film Festival's Cultural and Political Interplay." *Cogent Arts & Humanities*, 2024, vol. 11, no. 1, p. 2438486. DOI: https://doi.org/10.1080/23311983.2024.2438486
Ma, Ran. "Programming China at the Hong Kong International Film Festival and the Shanghai International Film Festival." In *Chinese Film Festivals: Sites of Translation*, Springer, 2017, pp. 237–257. DOI: https://doi.org/10.1057/978-1-137-55016-3_12
Cheung, Ruby. "Ever-Changing Readjustments: The Political Economy of the Hong Kong International Film Festival (HKIFF)." *New Review of Film and Television Studies*, 2016, vol. 14, no. 1, pp. 59–75. DOI: https://doi.org/10.1080/17400309.2015.1107268
Korbecka, Maja. "The 59th Taipei Golden Horse Film Festival: Cold War Revisited." *Senses of Cinema*, 2023, no. 104. https://www.sensesofcinema.com/2023/festival-reports/the-59th-taipei-golden-horse-film-festival-cold-war-revisited/

Pollacchi, Elena. "'Mature at Birth': The Beijing International Film Festival Between the National Film Industry and the Global Film Festival Circuit." In *Chinese Film Festivals: Sites of Translation*, Palgrave Macmillan, 2017, pp. 35–55. DOI: https://doi.org/10.1057/978-1-137-55016-3_3

Lim, Song Hwee. "Toward a Geopolitical Approach to the Study of Transnational Cinema." *Post45*. https://post45.org/2021/04/toward-a-geopolitical-approach-to-the-study-of-transnational-cinema/

Iordanova, Dina. "The Film Festival and Film Culture's Transnational Essence." In *Film Festivals: History, Theory, Method, Practice*, Routledge Taylor & Francis Group, 2016, pp. 1–6. https://research-portal.st-andrews.ac.uk/en/publications/the-film-festival-and-film-cultures-transnational-essence

Rawnsley, Ming-yeh T. "Culture Translation Between 'Local' and 'International': The Golden Harvest Award in Taiwan." In *Chinese Film Festivals: Sites of Translation*, Springer, 2017, pp. 57–78. DOI: https://doi.org/10.1057/978-1-137-55016-3_4

Stevens, Kirsten. *Australian Film Festivals: Audience, Place, and Exhibition Culture*. Palgrave Macmillan, 2016. Framing Film Festivals. DOI: https://doi.org/10.1057/978-1-137-58130-3

Nakajima, Seio. "Re-Imagining Civil Society in Contemporary Urban China: Actor-Network-Theory and Chinese Independent Film Consumption." *Qualitative Sociology*, 2013, vol. 36, no. 4, pp. 383–402. DOI: https://doi.org/10.1007/s11133-013-9255-7

Yang, Yanling. "Film Policy, the Chinese Government and Soft Power." *New Cinemas: Journal of Contemporary Film*, 2016, vol. 14, no. 1, pp. 71–91. DOI: https://doi.org/10.1386/ncin.14.1.71_1

Tong, Shan; and Ma, Ran. "It Is All About Qingnian Dianying: Post-Independent Chinese Cinema, Auteurism, and the FIRST International Film Festival." *Journal of Chinese Cinemas*, 2023, vol. 17, no. 3, pp. 213–235. DOI: https://doi.org/10.1080/17508061.2023.2286861

Wallis, Cara; and Balsamo, Anne. "Public Interactives, Soft Power, and China's Future at and Beyond the 2010 Shanghai World Expo." *Global Media and China*, 2016, vol. 1, no. 1–2, pp. 32–48. DOI: https://doi.org/10.1177/2059436416646258

Lee, Joseph Tse-Hei. "Despair and Hope: Cinematic Identity in Hong Kong of the 2000s." *Social Transformations in Chinese Societies*, 2017, vol. 13, no. 2, pp. 173–188. DOI: https://doi.org/10.1108/STICS-04-2017-0010

Bordwell, David; and Thompson, Kristin. *Film Art: An Introduction*. McGraw-Hill, 1979.

Perić, Vesna. "Generative Arts and Digital Likenesses: Art of Cinema in the Age of Digital Reproduction." *Kultura*, 2024, no. 184, pp. 107–124. DOI: https://doi.org/10.5937/kultura2484107P

Du, Jingge. "Challenging Stigmatization Through Cultural Dance: Exploring the Role of Fengyang Flower Drums in Shaping Collective Identity, Revitalizing Tradition, and Overcoming Social Prejudice." *Herança*, 2023, vol. 6, no. 2, pp. 218–233. DOI: https://doi.org/10.52152/heranca.v6i2.778

Kercher, Dona. "Review of San Sebastián International Film Festival 2022." *Transnational Screens*, 2022, vol. 13, no. 3, pp. 189–194. DOI: https://doi.org/10.1080/25785273.2022.2141459

Dennison, Stephanie. "Building BRICS: Soft Power and Audio-Visual Relations in Transnational Context." In *Cinema and Soft Power: Configuring the National and Transnational in Geo-Politics*, edited by Stephanie Dennison and Ramon Dwyer, Edinburgh University Press, 2021, pp. 38–57. DOI: https://doi.org/10.1515/9781474456296-006

Feng, Lin. *Film History and Screen Culture in and Beyond Greater China*. 1st ed., Routledge, 2025. DOI: https://doi.org/10.4324/9781003378839-7

Yishan, Liu; Kasimon, Diyana; and Fang, Ng Chwee. "Exploring the Interplay of Soft Power, Culture, and Cinema on a Global Scale: A Review of Current Research and Future Directions." *Int. J. Thin. Film. Sci. Tec.*, 2023, vol. 12, no. 2, pp. 147–157. https://digitalcommons.aaru.edu.jo/cgi/viewcontent.cgi?article=1331&context=ijtfst

You, Wu. "The Rise of China With Cultural Soft Power in the Age of Globalization." *Journal of Literature and Art Studies*, 2018, vol. 8, no. 5, pp. 763–778. DOI: https://doi.org/10.17265/2159-5836/2018.05.006

Liu, Ruijing; Shi, Zhenggang; and Zhu, Yiting. "Study on the International Communication Strategy of Chinese Film and Television." 2022 8th International Conference on Humanities and Social Science Research (ICHSSR 2022), Atlantis Press, 2022, pp. 485–489. DOI: https://doi.org/10.2991/assehr.k.220504.088

Almakaty, Safran Safar. "Communication and Soft Power: Exploring the Role of International Media in Building National Image." *Edelweiss Applied Science and Technology*, 2025, vol. 9, no. 2, pp. 132–143. DOI: https://doi.org/10.55214/25768484.v9i2.4439

Yu, Sabrina Qiong. "'Little by Little, the Truth Is Being Discovered': The Archive Rescuing China's Forbidden Films." *The Guardian*. https://www.theguardian.com/film/2024/feb/20/chinese-independent-film-archive-newcastle

Zhao, Lu. "What's Next for China's Struggling Independent Film Festivals?" *The World of Chinese*. https://www.theworldofchinese.com/2023/12/whats-next-for-chinas-struggling-independent-film-festivals/

Appadurai, Arjun. *Modernity at Large: Cultural Dimensions of Globalization*. vol. 1, U of Minnesota Press, 1996. https://books.google.com.pk/books?id=4LVeJT7gghMC

Du Gay, Paul; Hall, Stuart; Janes, Linda; Madsen, Anders Koed; Mackay, Hugh; and Negus, Keith. *Doing Cultural Studies: The Story of the Sony Walkman*. Sage, 2013. https://books.google.com.pk/books?id=qbMDAAAAQBAJ

Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press, 2005. https://global.oup.com/academic/product/reassembling-the-social-9780199256051?cc=pk&lang=en

Zhu, Yanling. "The Greater Bay Area: Film Festivals as Platforms for Cultural Diplomacy." *Place Branding and Public Diplomacy*, 2022, vol. 19, no. 3, pp. 335–344. DOI: https://doi.org/10.1057/s41254-022-00272-4

Robinson, Luke. "Individual, Network, Assemblage: Creating Connections on the Global Film Festival Circuit." *Film Studies*, 2016, vol. 14, no. 1, pp. 75–92. DOI: https://doi.org/10.7227/FS.14.0005

Spöhrer, Markus; and Ochsner, Beate. *Applying the Actor-Network Theory in Media Studies*. IGI Global, 2016. DOI: https://doi.org/10.4018/978-1-5225-0616-4

Marchetti, Gina. "The Networked Storyteller and Her Digital Tale: Film Festivals and Ann Hui's 'My Way'." *Global Storytelling: Journal of Digital and Moving Images*, 2021, vol. 1, no. 2. DOI: https://doi.org/10.3998/gs.1702

Ran, Ma. "Celebrating the International, Disremembering Shanghai: The Curious Case of the Shanghai International Film Festival." *Culture Unbound*, 2012, vol. 4, no. 1, pp. 147–168. DOI: https://doi.org/10.3384/cu.2000.1525.124147

Xu, Min; and Reijnders, Stijn. "Getting Close to the Media World? On the Attraction of Encountering Film Industry Professionals at Shanghai International Film Festival." *Participations, Journal of Audience and Reception Studies (Online)*, 2018, vol. 15, no. 1, pp. 84–104. https://repub.eur.nl/pub/108850/

Xiao, Jian; and Jin, Lin. "The Role of an Urban Festival: Case Study of the Pingyao International Film Festival." In *Re-Imagining Creative Cities in Twenty-First Century Asia*, Springer, 2020, pp. 161–174. DOI: https://doi.org/10.1007/978-3-030-46291-8_11

Leung, Wing-Fai; and Lee, Sangjoon. "The Chinese Film Industry: Emerging Debates." *Journal of Chinese Cinemas*, 2019, vol. 13, no. 3, pp. 199–201. DOI: https://doi.org/10.1080/17508061.2019.1678235

Wong, Cindy Hing Yuk. "Film Festivals and Film Industries." In *Film Festivals: Culture, People, and Power on the Global Screen*, Rutgers University Press, 2011, pp. 129–158. DOI: https://doi.org/10.36019/9780813551104-006

Peaslee, Robert Moses. "Media Conduction: Festivals, Networks, and Boundaried Spaces." *International Journal of Communication*, 2013, vol. 7, p. 20. https://ijoc.org/index.php/ijoc/article/view/1426