

Analysis of Macau's Cultural Industry Competitiveness from the Perspective of Porter's Diamond Model

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ABSTRACT

The cultural industry, characterized by its high value-added and strong employment-absorbing capacity, has become an important driver of economic growth worldwide. Macau—where Chinese, Portuguese, and other cultures intersect—possesses abundant cultural resources. Both the Central Government and the Macau Special Administrative Region (SAR) Government are actively promoting the cultural industry as a key pillar of Macau's economic diversification. Drawing on Michael E. Porter's Diamond Model, this paper analyzes the competitiveness, advantages, and disadvantages of Macau's cultural industry. It also conducts a longitudinal comparison of key indicators from 2019 (pre-pandemic), 2023, and 2024 (post-pandemic recovery) to examine how the industry has evolved before and after the pandemic. The findings are intended to inform future strategies for the sustainable development of Macau's cultural sector.

KEYWORDS

Diamond model; Cultural industry; Macau culture

1 Introduction

Macau's economy has long been dominated by the gaming industry. During external shocks such as financial crises or large-scale pandemics, this single-industry structure makes the territory particularly vulnerable. For this reason, the SAR Government has sought to foster highly integrative and wide-ranging cultural industries to achieve economic transformation and sustainable development. In 2010, the government established the Cultural and Creative Industries Promotion Office. Although little more than a decade has passed, various data already demonstrate the sector's potential: in 2023, total service receipts in the cultural industry soared by 47.9 % to MOP 8.72 billion—10 % higher than in 2019—while the number of operating entities and employees rose to 2,866 and 13,976, respectively.

This study adopts Porter's Diamond Model—widely used for industrial competitiveness analysis—and evaluates Macau's cultural industry from six dimensions: factor conditions; demand conditions; related and supporting industries; firm strategy, structure, and rivalry; chance; and government. By comparing 2019 data with that for 2023–2024, we assess pre- and post-pandemic performance and offer insights for future development.

According to Administrative Regulation No. 26/2013, "cultural industry" in Macau refers to economic activities that "draw on cultural accumulation, apply creativity and intellectual property, produce culture-laden goods, provide related services and experiences, create wealth and employment, and enhance overall living standards." The 2014 Cultural and Creative Industry Development Policy Framework divides the sector into four domains—creative design, cultural performance, art collection, and digital media—while the revised 2020 Framework further subdivides these into 12 major and 16 medium categories.

2 Literature review and theoretical framework

2.1 Literature review

Few studies specifically analyze the competitiveness of Macau's cultural industry. Existing research is dominated by work on mainland provinces, Hong Kong, Taiwan, or advanced economies; local Macau studies tend to focus on gaming, tourism-culture integration, or intangible cultural heritage protection. Studies using Porter's model on other regions include Shen Menghan & Zhao Yuandu (2024) on Liannan Yao Autonomous County's tourism culture industry and Dai Kui (2018) on integrated development of Macau's cultural industry. Some adopt other models—for example, Tam Yuhua (2023) used the Generalized Double-Diamond Model (GDDM) to compare cities in the Greater Bay Area, and Cheng Xiaomin & Zhan Yihong (2017) employed Florida's "3T" framework to study Macau's cultural-creative industries.

2.2 Porter's diamond model

In *The Competitive Advantage of Nations* (1990), Michael E. Porter proposed the Diamond Model comprising four primary determinants—factor conditions, demand conditions, related and supporting industries, and firm strategy,

structure, and rivalry—supplemented by two variables, chance and government. The model posits that sustainable competitive advantage emerges from the dynamic interaction of these determinants.

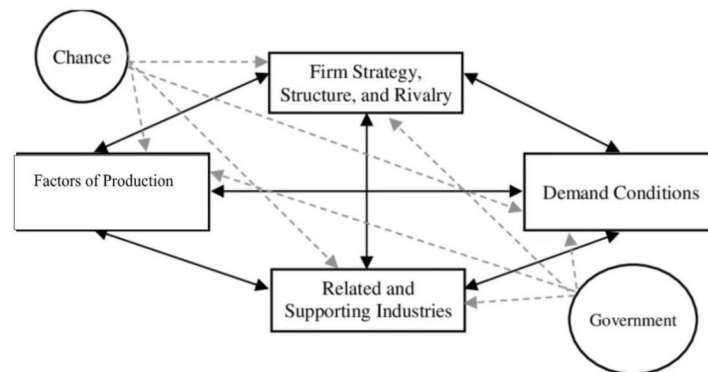


Figure 1 The diamond model theory⁵ p.91

(Source: Michael E. Porter, *The Competitive Advantage of Nations*, translated by Ming-Hsuan Lee & Ju-Mei Chiu, 2012)

3 Core determinants analysis

3.1 Factor conditions

3.1.1 Human resources

As a knowledge-intensive sector, the cultural industry faces a chronic shortage of talent in Macau's small labor market. By 2023, employment in the sector rose slightly to 13,976 (from 13,659 in 2019), but the industry has yet to display strong job-absorbing power relative to other sectors. The government's remedies include:

Higher-education programs (e.g., Macau Academy for Performing Arts in partnership with the Central Conservatory of Music; related majors at Macau University of Tourism, Macao Polytechnic University, Macau University of Science and Technology, City University of Macau, and the University of Saint Joseph). In 2023/24, arts graduates totaled 799 (128 locals, 671 non-locals).

Short-term training co-organized by the government, universities, and gaming enterprises (e.g., MGM & Beijing Institute of Fashion Technology's "Maritime Silk Road Creative Design Talent Training," 2025; Macau University of Science and Technology's "Sino-Portuguese Crafts Innovation Training," 2024).

Talent-attraction schemes such as the Hengqin Cooperation Zone's "dual 15%" income-tax incentives and the SAR's new Talent Introduction Law.

Talent exchange with the mainland (e.g., internships at the Palace Museum in Beijing and the 2024 launch of the Macau Palace Museum Heritage Center).

3.1.2 Cultural resources

Macau's diverse cultural heritage—Chinese, Lusophone, Macanese, Lingnan, Minnan, Taoist, Buddhist, Christian, etc.—provides a rich resource base. In addition to the Historic Centre of Macau (UNESCO 2005), by March 2024 the list of intangible cultural heritage items had grown to 85 (15 national-level). The Cultural Affairs Bureau's digitization program has completed high-resolution 3D models and oral-history recordings for eight priority items, now accessible via the "Memory of Macau" portal.

3.1.3 Cultural infrastructure

Macau functions as a "micro cultural hub," integrating dense cultural assets within a compact territory. By 2023 it had 17 public libraries and 77 reading rooms, electronic holdings of 260,000 e-books, and an expanding digital archive. Residents enjoy free access to 450,000 e-books and 12,000 e-journals as part of the smart-city initiative.

3.2 Demand conditions

3.2.1 Local market

Demand arises from residents and inbound tourists. High living costs squeeze discretionary spending, and cultural consumption remains subdued. In 2024, the main participants in cultural activities were 16- to 24-year-olds, mostly

students engaging in low-cost activities such as library visits. The top reasons for non-participation were “no interest” and “no time,” reflecting economic pressures, shift work, and a mismatch between government-led tourist-oriented events and residents’ everyday interests.

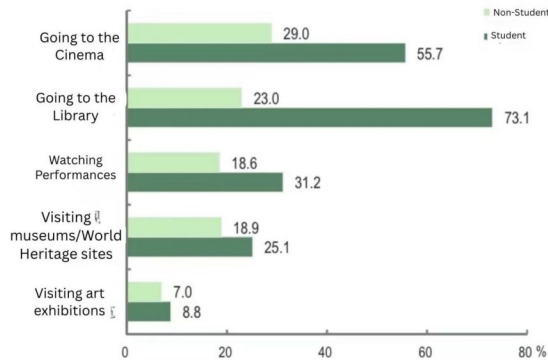


Figure 2 Participation rates in cultural activities by students and non-students in Q2 2024¹⁰

(Source: statistics and census service of the Macao SAR, survey on public participation in cultural activities, 2025)

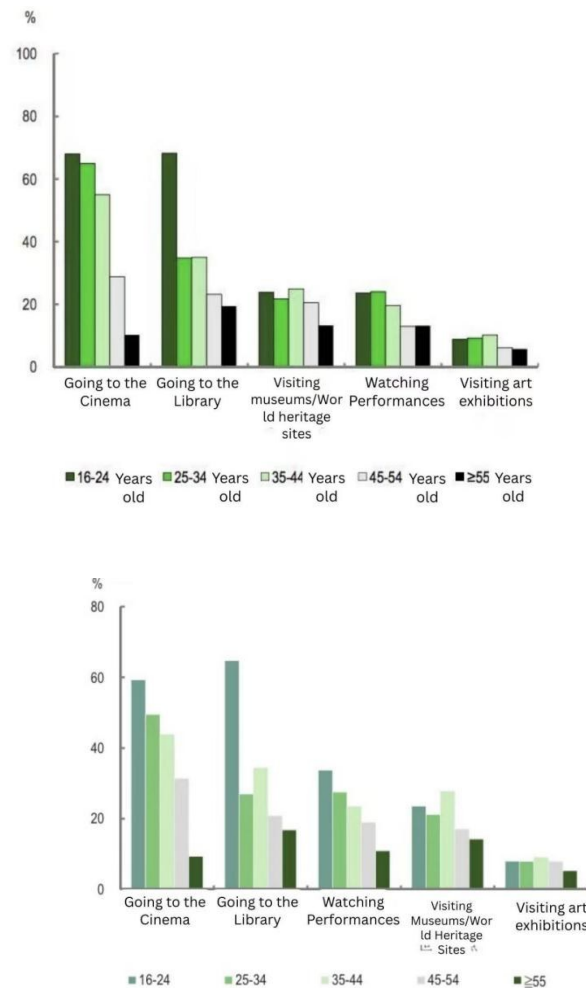


Figure 3 Cultural activity participation rates by age group among Macao residents in Q2 of 2019 and 2024¹⁰

(Source: statistics and census service of the Macao SAR, survey on public participation in cultural activities, 2019 & 2025)

3.2.2 International market

Positioned as “a base for exchange and cooperation with Chinese culture as the mainstream and multiple cultures coexisting,” Macau attracts international interest in performances blending Chinese and Western elements. Its free-port policy, low taxes, and dedicated funds facilitate overseas market entry through the “Macau brand + mainland

manufacturing + global sales” model. In 2023, Macau hosted nearly 500 events (over 1,200 performances), including more than 150 pop concerts featuring 70+ artists and groups from around the world.

3.3 Related and supporting industries

3.3.1 Tourism

Tourism brings roughly 30 million visitors annually. In 2024, arrivals totaled 34.92 million (+23.8 %), pushing non-gaming visitor spending to MOP 75.36 billion (+5.8 %). Visitors were mainly from mainland China, followed by Hong Kong and Taiwan. Overnight visitors now outnumber day-trippers, showing Macau’s success in extending stays through integrated resorts and cultural performances. Highest per-capita spending came from those attending performances/sporting events (MOP 5,076) and conventions (MOP 4,323).

3.3.2 Sports and MICE

Under the “1 + 4” diversification plan (2024-2028), the SAR prioritizes MICE, commerce, culture, and sports. “One trip, multiple stops” encourages tourists to sightsee by day and enjoy shows by night. Over 50 major sports events drew 120,000 participants in 2024. In 2023, Macau hosted 1,139 MICE events with 1.6 million participants, generating about MOP 6.2 billion in non-gaming revenue.

3.4 Firm strategy, structure, and rivalry

3.4.1 Strategy

Gaming and hotel giants adopt “culture + tourism” strategies—e.g., the water-spectacular “The House of Dancing Water” pre-sold tickets worth MOP 180 million and boosted City of Dreams hotel occupancy to 92 %. Regional cooperation sees Hengqin subsidizing Macau brand events and establishing a joint cultural-creative base.

3.4.2 Structure

The industry resembles a pyramid: integrated-resort venues dominate large-scale performances, while numerous micro-enterprises compete at the base. From 2019 to 2023, the number of entities grew from 2,454 to 2,866, employees from 13,659 to 13,976. Creative design and cultural performance entities increased, but average staff size fell, indicating a shift to small studios and project-based teams, aided by digital technologies that lower entry barriers.

Table 1 Scale of Cultural Industry Enterprises in Macao in 2019 and 2023¹

	Number of Institutions		Institutions Employees (People)		Average Number of Employees per Institution(People)	
	2019	2023	2019	2023	2019	2023
Overall	2454	2866	13,659	13,976	4-5	5-6
Creative Design	1397	1520	4,593	4,158	3-4	2-3
Digital Media	638	646	5491	4420	8-9	6-7
Cultural Performance	281	546	3043	4948	10-11	9-10
Art Collection	138	154	532	450	3-4	2-3

(Source: Statistics and Census Service of the Macao SAR Government, Cultural Industries Statistics, 2019 & 2023)

3.4.3 Rivalry

Locally, major hotels compete via blockbuster shows, while small firms often collaborate with them. Internationally, Macau’s Sino-Portuguese cultural fusion provides differentiation—e.g., the Sino-Portuguese Cultural Festival draws global professionals.

4 Auxiliary factors

4.1 Government

The SAR Government acts as:

- (1) Policy maker—establishing bodies such as the Cultural Industry Promotion Office and issuing the Cultural Industry Development Policy Framework;
- (2) Financier—through the Cultural Development Fund, which in 2023 supported 1,762 projects with MOP 197 million

(versus 131 projects and MOP 155 million in 2019);

- (3) Infrastructure builder—constructing and managing performance venues;
- (4) Talent developer—sponsoring training and international exchanges;
- (5) Event organizer—staging the Macau Arts Festival, International Music Festival, etc.;
- (6) Market regulator—protecting IP rights and ensuring fair competition.

4.2 Chance / opportunities

4.2.1 Gaming industry transformation

The shift from VIP to mass-market gaming and non-gaming revenue creates space for cultural activities. In 2023, non-gaming accounted for 61.7 % of total revenue. New concession requirements mandate that operators invest a portion of gross gaming revenue into public-interest projects, including cultural events.

4.2.2 Multiple development opportunities

2025 brings several catalysts:

- (1) “East Asia Cultural City 2025” activities under the theme “Convergence of East and West, Harmony in Asia,” featuring 80+ events across culture, sports, and tourism;
- (2) Deeper integration with the Greater Bay Area and Hengqin Cooperation Zone;
- (3) Expansion of the “tourism +” model to create new cultural-consumption scenarios.

5 Conclusion and recommendations

5.1 Summary

Macau’s cultural industry possesses distinctive resources, strong government backing, and an advantageous platform for international exchange. Challenges include limited local demand, talent shortages, and a fragmented enterprise structure. The transformation of the gaming industry and policy support nonetheless offer significant growth opportunities.

5.2 Recommendations

- (1) Broaden demand by creating targeted cultural products (e.g., family-friendly shows to raise female participation) and by alleviating household burdens through improved childcare and eldercare services.
- (2) Integrate resources across government departments—culture, tourism, economy—to avoid fragmentation, following examples such as China’s Ministry of Culture and Tourism or Shenzhen’s Culture, Radio, Television, Tourism and Sports Bureau.
- (3) Strengthen talent cultivation and retention through scholarships, tax incentives, and international exchange programs.
- (4) Encourage cross-sector collaboration—culture + sports + MICE—to build comprehensive cultural-tourism experiences.
- (5) Support digitalization and “small-yet-beautiful” creative studios via grants and incubation, fostering an ecosystem conducive to innovation and global market outreach.

References

- [1] Statistics and Census Service of Macau SAR (2019, 2023). Cultural Industry Statistics.
- [2] Macau SAR Government (2014, 2020). Cultural and Creative Industry Development Policy Framework.
- [3] Tam, Y.-H. (2023). Comparative Analysis of City Competitiveness in the Guangdong-Hong Kong-Macao Greater Bay Area Based on GDDM.
- [4] Cheng, X.-M., & Zhan, Y.-H. (2017). Macau Cultural and Creative Industry Development and Creative Class Cultivation from the Perspective of the “3T” Theory.
- [5] Porter, M. E. (1990). The Competitive Advantage of Nations.
- [8] Cultural Affairs Bureau of Macau SAR (2024). Annual Report.
- [9] Cultural Affairs Bureau of Macau SAR (2025). Resident Participation in Cultural Activities Survey.
- [10] Additional data sources as cited in the original Chinese manuscript.