

**From Scene Replication to Place Embeddedness: A Study on  
Sustainable Pathways for the Non-Gaming Transformation  
of Integrated Resorts on the Cotai Strip in Macao**

**——An Integrated Analysis Based on Servicescape, Staged  
Authenticity, and the Triple Bottom Line**

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[Abstract] The integrated resorts on the Cotai Strip in Macao are currently at a critical stage of transformation, moving from dependence on gaming revenue toward a non-gaming experience economy. The new round of the gaming concession system has written non-gaming investment, the expansion of overseas visitor markets, and the enhancement of integrated tourism and leisure functions into institutional requirements, making non-gaming development a key direction for Macao's appropriate economic diversification and its construction as a "World Centre of Tourism and Leisure." Unlike existing studies, which mainly focus on tourist choice, economic impact, or gaming regulation, this paper focuses on the structural tension among "globalized scene replication—local cultural authenticity—environmental sustainability" within the non-gaming transformation. Adopting an interpretive case-analysis method based on publicly available materials, this paper takes the representative cluster of integrated resorts on the Cotai Strip as its case, drawing on policy documents, corporate disclosures, industry plans, and academic literature. Through case reconstruction, theoretical induction, SWOT diagnosis, and SDG mapping, it builds an analytical framework for the non-gaming transformation of integrated resorts. The study finds that the non-gaming competitiveness of Cotai's

integrated resorts derives mainly from capital-intensive scene-making capacity and a high-end closed-loop consumption model; however, excessive reliance on the replication of continental European landmarks and enclosed resort spaces weakens the presence of Macao's local culture in the tourist experience, producing an experiential paradox of "high visibility, weak local character." At the same time, high-energy-consumption operations, insufficient spillover into local supply chains, and limited community connection also expose the non-gaming transformation to cultural, economic, and environmental constraints. On this basis, the paper proposes a transformation framework of "re-embedding local culture—co-creating local supply chains—redesigning low-carbon experiences," and builds an implementation pathway centered on cultural authenticity, economic inclusiveness, and environmental performance. The study offers an analytical reference for gaming tourism destinations seeking to reconcile capital-driven scenes, local culture, and environmental responsibility in the course of non-gaming transformation.

[Keywords] Integrated resorts; non-gaming transformation; servicescape; staged authenticity; triple bottom line; Cotai Strip, Macao

### 1. Introduction

Macao has long relied on gaming tourism as its core economic pillar, but in recent years the underlying logic of its growth has been undergoing structural change. Following the latest round of gaming concession awards, the Macao SAR Government has made non-gaming investment, the expansion of overseas visitor markets, and the enhancement of integrated tourism and leisure functions important components of concessionaires' obligations. According to official documents, the six gaming concessionaires have committed to total investment of approximately MOP 118.8 billion, of which about MOP 108.7 billion is earmarked for developing overseas visitor markets and non-gaming projects, and about MOP 10.1 billion for gaming-related projects (Macao SAR Government, 2022). This institutional arrangement means that non-gaming development is no longer merely a

supplementary complement to gaming revenue, but has become a core policy instrument for Macao's construction of a "World Centre of Tourism and Leisure," its pursuit of appropriate economic diversification, and the enhancement of urban resilience.

The Cotai Strip is a paradigmatic site for observing this transformation. Large integrated resorts such as The Venetian, The Parisian, City of Dreams, and Wynn Palace are concentrated here, creating, through combinations of Venetian canals, an Eiffel Tower replica, musical fountains, immersive shopping districts, international performances, high-end dining, and MICE activities, the most internationally recognizable non-gaming experience space in Macao. Their success lies in integrating architectural landscape, service environment, retail formats, and entertainment consumption into an "experience product" that can be quickly recognized, photographed, shared, and consumed. This model effectively lengthens visitor dwell time and redirects visitor behavior from gaming alone toward diversified consumption scenarios such as accommodation, dining, shopping, entertainment, and conventions.

However, the non-gaming transformation of the Cotai Strip also reveals fairly evident structural tensions. First, the spatial production that relies heavily on replicating foreign landmarks tends to overshadow Macao's own history of Sino-Portuguese exchange, Macanese culture, the worship of Mazu, historic districts, and community life. Second, although capital-intensive landscapes, high-end retail, and enclosed resort spaces help form a closed consumption loop, they do not necessarily generate substantial participation from local SMEs, community businesses, or cultural creators. Third, large-scale landscapes, hotel facilities, and high-intensity visitor flows may also bring pressure in the form of energy consumption, resource use, and carbon emissions. In this sense, the non-gaming transformation of the Cotai Strip is not simply a matter of adding more shopping, dining, performances, or family entertainment, but a question of how a tourism destination reconstructs its mode of value creation.

If non-gaming projects remain confined to the transplantation of global landmarks, luxury consumption, and enclosed resort experiences, the transformation may merely replace dependence on gaming with dependence on another form of highly capitalized, homogenized consumption. Conversely, if Macao's local culture, community economy, and green low-carbon technologies can be embedded into experience design, non-gaming development may become a deeper mechanism for advancing destination resilience, cultural transmission, and sustainable development. Building on this, the paper focuses on three research questions: First, what are the competitive advantages and structural shortcomings of the existing non-gaming businesses of the integrated resorts on the Cotai Strip? Second, how does globalized scene replication affect the presentation of Macao's local cultural authenticity within the tourist experience? Third, how can integrated resorts construct a non-gaming transformation pathway with stronger local embeddedness and longer-term competitiveness, given the constraints of policy, market competition, and sustainable development goals?

Around these questions, this paper does not treat non-gaming development simply as an expansion of business lines beyond gaming revenue, but instead views it as a process through which integrated resorts reconfigure their mode of value creation across spatial production, cultural expression, and sustainable governance. Specifically, the paper first draws on servicescape theory to explain how Cotai's integrated resorts generate non-gaming appeal through capital-intensive scene-making, themed spatial design, and a high-end closed consumption loop (Bitner, 1992); it then introduces the theory of staged authenticity to analyze how globalized landscape replication, while enhancing visual and communicative appeal for tourists, may simultaneously weaken the visibility and interpretive power of Macao's local culture within the tourist experience (MacCannell, 1973); finally, it incorporates the triple-bottom-line framework, bringing cultural authenticity, community economic linkage, and environmental performance into a single analytical view, in order to reveal the key conditions under which non-gaming transformation can truly translate

into sustainable destination competitiveness (Elkington, 1997; United Nations, 2015).

On this basis, taking the integrated resorts on Macao's Cotai Strip as its case, this paper proposes a transformation pathway of “re-embedding local culture—co-creating local supply chains—redesigning low-carbon experiences.” This pathway is not a simple summary of existing policy requirements or corporate projects; rather, based on the threefold tension created by scene replication, high-end closed consumption loops, and themed spatial production, it seeks to explain how integrated resorts can move from dependence on global landscape transplantation and capital-intensive consumption spaces toward becoming local, sustainable experience platforms with greater cultural depth, community spillover, and environmental responsibility.

## 2. Literature Review and Theoretical Foundations

### *2.1 Research on Integrated Resorts and Non-Gaming Transformation*

Integrated resorts generally refer to composite tourism-consumption platforms that combine gaming, hotels, conventions and exhibitions, shopping, dining, performing arts, entertainment, and leisure facilities within a single space. Early research focused mainly on gaming legalization, tax revenue, employment contribution, and social costs; as integrated resorts expanded rapidly across Asia, research attention gradually shifted toward visitor experience, destination image, non-gaming consumption, community attitudes, and regional competition. Ahn and Back's (2018) review of integrated-resort research shows that the field has expanded from a narrow gaming-economy perspective into a multidisciplinary one, though research on how non-gaming formats couple with local culture, community economy, and sustainable development goals remains relatively limited.

In the Macao context, non-gaming transformation carries a stronger policy-driven character. The new concession system directly ties non-gaming investment to concessionaires' obligations, requiring integrated resorts to shift from “maximizing gaming revenue” toward “diversifying visitor composition, experience content, and urban functions.” McCartney's (2020) research on Cotai's integrated

resorts finds that non-gaming attributes such as shopping, accommodation services, and entertainment already significantly influence visitors' choice among different resorts. This indicates that non-gaming elements have moved from being a subsidiary complement to a core competitive resource. The problem, however, is that if these resources rely mainly on heavy capital investment and globalized landscape replication, their differentiating advantage can be quickly imitated, leading to homogenized competition.

### *2.2 Servicescape: The Spatial Production Mechanism of Non-Gaming Experience*

Bitner's (1992) servicescape theory emphasizes that the physical environment is not merely the backdrop against which services occur, but also an important cue shaping consumers' emotional responses, service evaluations, and behavioral intentions. Integrated resorts transform the physical environment into a consumable, dwell-worthy, and shareable experience product precisely through the overall orchestration of architectural scale, lighting, circulation, sound, scent, landscape, branded stores, and dining spaces. In replicating global landmarks such as the Venetian canals and the Eiffel Tower, the Cotai Strip is, in essence, treating servicescape as a key resource for generating non-gaming revenue.

However, while servicescape theory explains how environments stimulate consumption, it has less to say about whether such environmental production carries local cultural depth. For Macao, the visual symbols of Cotai's resorts carry strong international recognizability, yet this does not necessarily generate an understanding of Macao's local culture. In other words, servicescape can increase visitor dwell time and willingness to spend, but if its symbolic system is drawn mainly from replicated foreign settings, it may produce an experiential paradox in which "the space is spectacular, but the place is blurred."

### *2.3 Staged Authenticity: The Cultural Risk of Themed Experience*

MacCannell's (1973) theory of staged authenticity holds that much of what passes for "authentic" in modern tourist experience is in fact a front-stage

performance organized for tourists to watch. The themed landscapes of integrated resorts are especially typical of this: through elaborate set design, service scripts, and consumption circulation, they manufacture immersion, but this immersion is not equivalent to an authentic presentation of local culture. Cotai's continental-European landscapes can quickly generate a strong sense of novelty and photogenic, shareable value, but they may also push Macao's local culture into the background.

It should be emphasized that this paper does not simply reject themed experience as such. The question worth asking is not "is replicating landmarks wrong," but whether replicated scenes can forge a new connection with local narratives. If integrated resorts can turn Macanese history, the worship of Mazu, Sino-Portuguese cuisine, traditional festivals, community craftsmanship, and contemporary cultural creativity into experiential content that can be participated in, learned from, and consumed, themed spaces have a chance to move from shallow set design toward deeper cultural interpretation. If, conversely, resorts offer only exotic landscapes to be watched, the authenticity of local culture will continue to be diluted.

### *2.4 The Triple Bottom Line and the SDGs: Sustainability Criteria for Non-Gaming Transformation*

Elkington's (1997) triple-bottom-line theory holds that corporate performance should not be measured by financial returns alone, but should also attend to social responsibility and environmental performance. The United Nations' 2030 Agenda for Sustainable Development further institutionalizes the Sustainable Development Goals, providing normative coordinates for the transformation of tourism destinations (United Nations, 2015). For Macao's integrated resorts, non-gaming development should not only raise the share of non-gaming revenue, but should also respond to at least three dimensions: first, the cultural and community dimension—protecting local cultural diversity and enhancing community benefit; second, the economic-inclusiveness dimension—expanding the participation of local SMEs through local procurement, employment training, and cultural-creative collaboration; and third, the environmental dimension—reducing the energy consumption, resource

use, and carbon emissions of large resorts.

Accordingly, this paper defines non-gaming transformation as a composite process: it involves a shift in revenue structure from gaming to non-gaming; a shift in experience structure from enclosed consumption toward local participation; and a shift in value structure from an orientation toward short-term visitor flow and spending toward one oriented around coordinated cultural, social, and environmental performance. Servicescape theory, staged-authenticity theory, and the triple-bottom-line/SDG framework are not presented here as parallel, unrelated concepts, but form a progressive relationship: servicescape theory explains how non-gaming revenue is realized through spatial production; staged-authenticity theory asks about the cultural cost of that spatial production; and the triple-bottom-line/SDG framework provides normative standards and operational indicators for assessing and correcting that cost.

### **3. Research Design and Data Sources**

#### *3.1 Case Selection and Research Positioning*

This paper adopts an interpretive case-analysis method based on publicly available materials. Unlike qualitative case studies in the strict sense that rely on in-depth interviews, field observation, and inter-coder reliability checks, this paper does not aim at statistical generalization or the construction of a fully grounded theory. Instead, its purpose is to theorize the main mechanisms, structural tensions, and strategic directions of the non-gaming transformation of Cotai's integrated resorts within the real context of policy constraints and industry transformation.

The Cotai Strip was chosen as the case for three main reasons. First, typicality: the Cotai Strip concentrates Macao's most representative integrated resorts and constitutes the core space of Macao's shift from gaming tourism toward integrated tourism and leisure, so analyzing its transformation logic carries strong case-based implications. Second, theoretical relevance: this area simultaneously exhibits servicescape construction, disputes over staged authenticity, and sustainability

pressures, making it well suited to testing and extending the paper's integrated theoretical framework. Third, policy sensitivity: the new round of gaming concessions imposes explicit requirements on non-gaming investment, giving the transformation of Cotai's resorts strong institutional constraints and practical urgency, and offering a representative window for observing policy-driven tourism transformation.

### *3.2 Data Sources and the Boundaries of Evidence*

To enhance the reliability of the argument, this paper cross-checks four categories of publicly available materials. The first category is policy and planning documents, including materials on Macao's new round of gaming concessions, the plan for appropriate economic diversification, the "1+4" moderate diversification strategy, and tourism development planning. The second category is corporate disclosures, including integrated resorts' official websites, annual reports, sustainability reports, press releases, and publicly available information on non-gaming projects. The third category is secondary academic literature on integrated resorts, gaming tourism, servicescape, tourism authenticity, and sustainable tourism. The fourth category is descriptive case material, comprising publicly available information on representative non-gaming formats, cultural experiences, retail-and-dining combinations, performances, and green measures on the Cotai Strip.

It should be specifically noted that this paper strictly distinguishes between "verifiable facts" and "strategic proposals." Information drawn from government documents, corporate annual reports, official websites, or academic literature is used as case fact and institutional background. Anything concerning future project design, spatial scale, technology scale, carbon-reduction ratios, power-generation estimates, or similar data that has not yet been subject to third-party audit or formal disclosure is not written into the paper's conclusions as established fact, but is discussed only as a possible strategic direction or implementation scenario. This treatment helps avoid mistaking consultancy-style proposals for experience that has already occurred, and makes the evidentiary boundaries of the paper clearer.

## 3.3 Analytical Procedure

The analysis in this paper proceeds in four steps. First, case-fact reconstruction, sorting out the main types of non-gaming business on the Cotai Strip, including themed landscapes, hotel accommodation, retail and dining, performances, conventions and exhibitions, family entertainment, and cultural experiences. Second, theoretical induction, interpreting the case material under four themes—“servicescape construction,” “presentation of authenticity,” “community and supply-chain linkage,” and “resource and environmental performance”—without claiming to have carried out strict multi-round coding or inter-coder reliability testing. Third, SWOT diagnosis, identifying the strengths, weaknesses, opportunities, and threats of the resorts’ non-gaming transformation. Fourth, mapping the diagnostic results onto the triple bottom line and the SDGs, proposing a transformation pathway that coordinates culture, economy, and environment.

Table 1 Data Sources and Analytical Uses

| Data Type                     | Main Content                                                                                  | Analytical Use                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Policy and planning documents | Gaming concessions, appropriate economic diversification plan, “1+4” tourism development plan | Defining institutional background and policy constraints                             |
| Corporate disclosures         | Annual reports, official websites, press releases, ESG/sustainability reports                 | Identifying non-gaming projects, operational statements, and sustainability measures |
| Academic literature           | Research on integrated resorts, servicescape, authenticity, the triple bottom line, and the   | Constructing the theoretical framework and analytical dimensions                     |

| Data Type                 | Main Content                                                                                                   | Analytical Use                                           |
|---------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
|                           | SDGs                                                                                                           |                                                          |
| Case descriptive material | Themed landscapes, retail and dining, performances, and cultural activities of representative Cotai properties | Case reconstruction, SWOT diagnosis, and strategy design |

#### 4. Case Analysis: The Threefold Tension in the Non-Gaming Transformation of the Cotai Strip

##### *4.1 Capital-Intensive Scene-Making Enhances Appeal but Also Creates a Risk of Homogenization*

The non-gaming competitive advantage of the Cotai Strip derives, first of all, from strong capital investment and scene-making capability. The Venetian shapes an image of an Italian city through canals, arched bridges, and an indoor sky ceiling; The Parisian conjures a European romantic imagination through an Eiffel Tower replica and French-style streets; Wynn Palace builds an atmosphere of luxury through large-scale landscaping, art installations, and high-end service; and City of Dreams emphasizes a composite experience of entertainment, dining, and fashionable lifestyle. These resorts design “place” itself as a consumable destination, allowing visitors to generate multi-point consumption—through accommodation, shopping, dining, watching performances, photo-taking, and family entertainment—even without gambling.

From the perspective of servicescape theory, the effectiveness of this model lies in converting the physical environment into emotional stimuli and behavioral triggers. Visitors are not simply purchasing a hotel room or a meal, but are purchasing an overall experience jointly constituted by architecture, lighting, sound, brand, service, and social-media dissemination. Yet the shortcomings of this model are equally clear: when the core symbols are drawn from replicable global landmarks, competitive

advantage can easily slide from “uniqueness” toward “large-scale replication.” Singapore, Las Vegas, the Middle East, and other tourism destinations across Asia can all replicate similarly luxurious scenes through capital investment; without a supporting local Macao narrative, Cotai’s resorts will find their differentiation depending mainly on continued investment and marketing volume, rather than on an irreplaceable local cultural asset.

### *4.2 A High-End Closed Consumption Loop Boosts Non-Gaming Revenue but Limits Local Economic Spillover*

A second advantage of Cotai’s integrated resorts lies in the high-end closed consumption loop. International branded retail, high-end dining, hotel accommodation, entertainment performances, and MICE activities together lengthen visitor dwell time and raise per-visitor spending. This closed loop effectively serves mid-to-high-end visitor demand and helps Macao shift from reliance on gaming alone toward integrated tourism consumption. Official promotion of the “1+4” moderate diversification strategy and “tourism+” integration has also opened policy space for non-gaming formats such as conventions, sports, culture, performing arts, health, and themed entertainment (Macao Government Tourism Office, 2024; Macao SAR Government, 2023).

From the triple-bottom-line perspective, however, a high-end closed consumption loop does not necessarily bring local economic inclusiveness. If retail brands, dining supply chains, performance production, and cultural-creative products are dominated mainly by outside capital and international brands, local SMEs, community businesses, and cultural creators may gain only limited opportunities for participation. This creates a structural problem in which “visitor flow stays local, but the value chain sits elsewhere.” Unless non-gaming transformation can engage local supply chains, community businesses, and the cultural-creative industry, its effect on economic diversification will remain limited.

### *4.3 Themed Space Strengthens Visibility but Weakens Local Cultural Authenticity*

The most prominent contradiction on the Cotai Strip is that resort spaces are

highly viewable, photographable, and shareable, while Macao's local culture remains poorly understood and under-participated in. Visitors readily remember The Venetian, The Parisian, the fountains, the shopping malls, and the luxury hotels, but may not necessarily come to understand, through these spaces, Macao's historical role as a meeting point of Chinese and Western cultures. Cultural resources such as the worship of Mazu, Macanese culture, Portuguese-style architecture, traditional festivals, life in the old town, Cantonese opera, and local cuisine are often mere decorative touches within resorts, rather than the main thread of the experience.

From the perspective of staged authenticity, the issue is not that resorts “perform” culture, but whether the content of the performance is rooted in the local. Tourist experience inherently involves selection, organization, and display, but the competitiveness of high-quality destinations tends to come from professional interpretation of local culture rather than the simple transplantation of foreign symbols. For Cotai's resorts to achieve a higher level of non-gaming transformation, they need to shift from “letting visitors see grand exotic landscapes” toward “helping visitors understand what makes Macao unique.”

Table 2 SWOT Diagnosis of the Non-Gaming Transformation of the Cotai Strip

| Dimension      | Main Content                                                                                                                                            | Implications for Transformation                                                           |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Strengths (S)  | Strong capital base; concentration of international brands; mature themed scenes; strong synergy among accommodation, shopping, dining, and performance | A foundation for rapidly developing non-gaming products and organizing large-scale events |
| Weaknesses (W) | Dominance of continental-European replica landscapes; insufficient embedding                                                                            | Need to shift from “scale competition in scene-making” toward                             |

| Dimension         | Main Content                                                                                                                                                                            | Implications for Transformation                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|                   | of local culture; considerable pressure from high-energy facilities; limited participation of local supply chains                                                                       | “competition on local content” and “competition on green efficiency”                                                            |
| Opportunities (O) | Macao’s push for appropriate economic diversification, “tourism+” integration, and construction of a World Centre of Tourism and Leisure; institutionalization of non-gaming investment | A policy environment supporting the deepening of culture, conventions and exhibitions, sports, health, and themed entertainment |
| Threats (T)       | Intensifying competition among regional integrated resorts; visitors placing greater weight on authenticity and sustainability; rising environmental regulation and ESG requirements    | A model relying purely on luxury landscapes and shopping consumption may face diminishing marginal returns                      |

## 5. Transformation Pathway and Implementation Mechanisms

### 5.1 Re-embedding Local Culture: Responding to the Dilemma of Staged Authenticity

The first pathway is to promote the re-embedding of local culture. This pathway responds to the authenticity dilemma revealed in Chapter Four: Cotai’s integrated resorts should not merely scatter Macao elements across public spaces, but should build a continuous experiential narrative around Macao’s culture. Specifically, a “Macao Cultural Experience Axis” could be established, integrating Macanese history, Sino-Portuguese cuisine, the worship of Mazu, Cantonese opera, Portuguese-language

culture, memories of the Maritime Silk Road, and contemporary cultural-creative products into an experience route that can be walked, lingered in, consumed, and learned from. This route need not simply replicate historic districts, but should transform local culture into high-quality experiential content through exhibitions, guided tours, dining, performances, workshops, and digital interaction.

In terms of performance products, resident shows and small-scale immersive theater with a distinct Macao identity could be developed, rather than relying solely on international touring shows or imported themed spectacles. For example, Cantonese opera, fado music, Macanese stories, the history of maritime trade, and contemporary Macao youth culture could be arranged across genres to create cultural products that are both locally rooted and aligned with the aesthetic expectations of international visitors. For top-tier integrated resorts, cultural authenticity does not mean retro display, but rather bringing local culture into the high-end experience market through professional curation and commercial design.

### *5.2 Co-creating Local Supply Chains: Responding to Insufficient Economic Spillover*

The second pathway is to establish a mechanism for co-creating local supply chains. This pathway responds to the issue of economic inclusiveness within the triple bottom line—namely, that integrated resorts should shift from being “internally enclosed consumption platforms” toward becoming “platform enterprises that drive the city’s value chain.” On the dining side, the proportion of local ingredients, Macao specialty foods, and local brands within resorts’ dining systems could be increased; on the retail side, dedicated zones for Macao cultural-creative and design brands could be established, bringing local handicrafts, spices, pastries, Portuguese-style food, tourism souvenirs, and digital cultural-creative products into high-traffic visitor settings; on the service side, resorts could partner with local tour guides, community businesses, cultural institutions, and schools to develop community tours, study tours, festival tours, and MICE extension itineraries.

More importantly, supply-chain reform should not stop at the level of

procurement, but should establish a mechanism for joint development. Resorts can work with local SMEs on product design, brand packaging, channel promotion, and international marketing, elevating local Macao products from “souvenirs” to “destination brand assets.” Such a mechanism helps increase the local retention rate of non-gaming revenue, and also responds to SDG 8’s call for decent work and economic growth.

### *5.3 Redesigning Low-Carbon Experiences: Responding to Environmental Performance Constraints*

The third pathway is the redesign of low-carbon experiences. This pathway responds to the problem of high energy consumption, high resource use, and rising ESG pressure facing large integrated resorts. If large resorts deploy energy-saving technologies only behind the scenes, this may help reduce operating costs but will not necessarily translate into visitors’ perception of brand sustainability. Green transformation therefore needs to encompass both back-of-house management and front-of-house experience. At the back-of-house level, resorts can advance photovoltaic power generation, smart energy management, water-recycling systems, food-waste recovery, low-carbon logistics, and green building retrofits; at the front-of-house level, resorts can help visitors understand and take part in low-carbon action through carbon-neutral family spaces, green hotel room categories, sustainable-dining labels, low-carbon MICE certification, and environmentally themed interactive exhibitions.

It should be noted that the disclosure of data on green projects must follow the principle of verifiability. In academic writing and corporate communication, carbon-reduction ratios that have not been verified by a third party should not be presented as definitive achievements; instead, sustainability should be tracked continuously through indicators such as annual energy consumption, energy consumption per room, the share of renewable energy, waste-recycling rates, and the proportion of green procurement. Only when green transformation moves from slogan to indicator system can integrated resorts truly convert ESG requirements into

long-term competitiveness.

Table 3 Mapping of Non-Gaming Transformation Pathways to the SDGs

| Pathway                                  | Core Measures                                                   |            | Corresponding                         |          | Key                                                                                                                                  | Evaluation |
|------------------------------------------|-----------------------------------------------------------------|------------|---------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------|------------|
| Dimension                                |                                                                 |            | SDGs                                  |          | Indicators                                                                                                                           |            |
| Re-embedding<br>local culture            | Macao                                                           | Cultural   | SDG                                   | 11       | Number of local                                                                                                                      |            |
|                                          | Experience Axis; locally<br>themed                              | resident   | Sustainable Cities and<br>Communities |          | cultural projects; visitor<br>participation rate in<br>culture; spending on<br>cultural products; share<br>of local artists involved |            |
|                                          | performances; cultural<br>workshops and digital<br>guided tours |            |                                       |          |                                                                                                                                      |            |
| Co-creating<br>local supply chains       | Local                                                           | ingredient | SDG                                   | 8 Decent | Share of local                                                                                                                       |            |
|                                          | procurement;                                                    |            | Work and Economic                     |          | procurement; number of                                                                                                               |            |
|                                          | cultural-creative brand                                         | brand      | Growth                                |          | partnering SMEs;                                                                                                                     |            |
|                                          | zones; community tours                                          |            |                                       |          | conversion rate of                                                                                                                   |            |
|                                          | and MICE extension                                              |            |                                       |          | community itineraries;                                                                                                               |            |
|                                          | itineraries; joint                                              |            |                                       |          | number of local jobs and                                                                                                             |            |
|                                          | development with SMEs                                           |            |                                       |          | trainees                                                                                                                             |            |
| Redesigning<br>low-carbon<br>experiences | Smart                                                           | energy,    | SDG                                   | 12/13    | Energy                                                                                                                               |            |
|                                          | photovoltaics,                                                  | water      | Responsible                           |          | consumption per room;                                                                                                                |            |
|                                          | recycling, green MICE,                                          |            | Consumption and                       |          | share of renewable                                                                                                                   |            |
|                                          | sustainable dining, and                                         |            | Production; Climate                   |          | energy; waste-recycling                                                                                                              |            |
|                                          | eco-themed family                                               | family     | Action                                |          | rate; carbon-emission                                                                                                                |            |
|                                          | experiences                                                     |            |                                       |          | intensity; number of<br>green certifications                                                                                         |            |

## 5.4 A Phased Implementation Pathway and Governance Safeguards

Non-gaming transformation should avoid spreading resources thin all at once, and should instead advance according to the logic of “baseline diagnosis—pilot

projects—collaborative expansion—indicator-based governance.” The first phase is diagnosis and piloting, focusing on mapping existing non-gaming projects and establishing baselines for local supply chains and energy consumption, while selecting one or two properties to pilot cultural experiences and green operations. The second phase is productization and collaboration, focusing on turning cultural performances, local procurement, community itineraries, and green MICE activities into sellable products, and establishing coordination mechanisms among government, enterprises, communities, and cultural institutions. The third phase is scaling and branding, focusing on forming an overall non-gaming brand narrative for the Cotai Strip, so that Macao’s culture, green experience, and high-end leisure jointly constitute the destination’s image. The fourth phase is indicator-setting and continuous improvement, focusing on establishing an annual performance report on non-gaming transformation, publicly disclosing cultural, economic, and environmental indicators.

Table 4 Phased Implementation Roadmap

| Phase                                     | Key Tasks                                                                                                                                               | Expected Outputs                                    |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Phase 1: Baseline diagnosis and piloting  | Build an inventory of non-gaming projects and a pilot baseline for energy and supply chains; select pilots for cultural experience and green operations | A baseline report, plans, and evaluation indicators |
| Phase 2: Productization and collaboration | Develop local cultural performances, cultural-creative retail, local dining, and community extension itineraries; establish partnership mechanisms      | Sellable cultural and community experience products |
| Phase 3: Scaling                          | Replicate mature projects across multiple properties; unify                                                                                             | A cross-property, integrated non-gaming             |

| Phase                                                    | Key Tasks                                                                                                                       | Expected Outputs                                                      |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| and branding                                             | the brand narrative of Cotai's local sustainable experience                                                                     | brand system                                                          |
| Phase 4:<br>Indicator-setting and continuous improvement | Publish annual performance reports; track indicators on local procurement, cultural participation, energy, and carbon emissions | An auditable, comparable, continuously improving governance mechanism |

## 6. Discussion

### *6.1 The Core of Non-Gaming Transformation Is the Reconstruction of the Mode of Value Creation*

The case analysis in this paper shows that the non-gaming transformation of the integrated resorts on the Cotai Strip is not simply a matter of adding shopping, dining, performances, conventions, and family entertainment on top of gaming revenue, but a process of reorganizing how the destination creates value. Existing research on integrated resorts has already shown that non-gaming attributes such as shopping, accommodation, and entertainment influence visitor choice, but such studies focus mainly on how these attributes affect visitor preference, with less attention to how they build long-term competitiveness under the constraints of local culture, community economy, and environmental responsibility. This paper's findings further suggest that the key to non-gaming transformation lies not in the number of projects itself, but in whether these projects can generate irreplaceable local meaning, community connection, and environmental value.

Seen from this angle, the strength of the Cotai Strip lies in its ability to form a complete non-gaming consumption loop through capital-intensive scene-making, high-end retail, dining and performance, and hotel service; but its potential risk lies in the fact that, if non-gaming projects rely mainly on global landmark replication and enclosed high-end consumption spaces, the transformation may only shift from

“gaming dependence” to another form of “capital-intensive landscape dependence.” Such a transformation can raise visitor dwell time and depth of spending in the short term, but may not necessarily strengthen Macao’s local cultural distinctiveness and sustainable competitiveness as a tourism destination.

### *6.2 The Paradox of Scene Replication: The Coexistence of High Visibility and Low Local Character*

This paper further reveals an important paradox in the non-gaming transformation of the Cotai Strip: globalized scene replication can rapidly raise a resort’s international recognizability, communicability, and consumer appeal, yet it may also weaken the visibility of Macao’s local culture within the tourist experience. Themed spaces such as The Venetian and The Parisian, through canals, arched bridges, the Eiffel Tower, continental-European streets, and indoor consumption settings, have successfully turned the resorts themselves into experience products that can be watched, photographed, and shared. This model is consistent with servicescape theory’s emphasis on how the physical environment shapes consumer emotion and behavioral intention.

Yet the success of servicescape does not necessarily mean an enhancement of local character. A space being more refined, more photogenic, and more international does not mean visitors thereby understand more of the history and culture of the city in which it sits. For a destination such as Macao, where Chinese and Western cultures meet, if a resort’s core symbols come mainly from exotic landscapes and global consumer brands, what visitors remember may be “a transplanted world” rather than “the real Macao.” This suggests that, in explaining the non-gaming appeal of integrated resorts, servicescape theory needs to be combined with staged-authenticity theory, to further examine whether themed spaces, while manufacturing immersive experience, also obscure local culture.

### *6.3 From Cultural Display to Local Embeddedness: The Sustainable Mechanism of Non-Gaming Transformation*

The future non-gaming transformation of the Cotai Strip should not stop at the

decorative addition of Macao cultural elements, but should push local culture, community economy, and low-carbon governance into the core of resort experience design. The framework proposed in this paper—“re-embedding local culture—co-creating local supply chains—redesigning low-carbon experiences”—responds precisely to the threefold tension created by scene replication, high-end closed consumption loops, and themed spatial production.

First, re-embedding local culture responds to the problem of authenticity within themed spaces. Macao’s culture should not be merely a symbolic decoration within resort space, but should, through exhibition, performance, dining, cultural-creative products, guided tours, and digital interaction, be turned into the main experiential thread that visitors can understand, participate in, and consume. Second, co-creating local supply chains responds to the problem of economic spillover from non-gaming consumption. Only when visitor spending can be more fully converted into income for local SMEs, community businesses, and cultural creators can non-gaming transformation truly serve Macao’s appropriate economic diversification. Finally, redesigning low-carbon experiences responds to the environmental responsibility of large integrated resorts. Green technology should not be merely a back-of-house energy-saving tool, but should also become experiential content that visitors can perceive and participate in, thereby converting environmental performance into destination brand value.

It can thus be seen that the sustainable competitiveness of integrated resorts does not come merely from larger-scale investment, richer business formats, or more upscale consumption scenes, but from whether local culture, community benefit, and environmental responsibility can be embedded into the production process of non-gaming experience. In other words, the deeper mechanism of non-gaming transformation is a shift from “a global landscape showcase” toward “a local, sustainable experience platform.”

## **7. Conclusion and Research Limitations**

### *7.1 Conclusion*

Taking the integrated resorts on Macao's Cotai Strip as its case, this paper examines the internal mechanisms and optimization pathways of non-gaming transformation for gaming tourism destinations. The study finds that Cotai's integrated resorts have already established advantages in capital-intensive scene-making and high-end closed consumption loops, but also face structural problems such as cultural homogenization, insufficient community connection, and environmental pressure. The deeper goal of non-gaming transformation should not be merely to raise the share of non-gaming revenue, but to shift the destination's mode of value creation away from gaming dependence and landscape replication, and toward the re-embedding of local culture, community co-creation, and green low-carbon experience.

### *7.2 Significance*

This paper advances the discussion of non-gaming transformation in integrated resorts from a question of business-line expansion to a question of reconstructing experiential value, and, by integrating servicescape theory, staged-authenticity theory, and the triple-bottom-line framework, shows that the competitiveness of non-gaming experience derives not only from spatial design and consumer convenience, but also from the interpretation of local culture, community economic linkage, and the assumption of environmental responsibility. The strategic framework proposed here—"re-embedding local culture—co-creating local supply chains—redesigning low-carbon experiences"—offers Macao, and other gaming tourism cities that rely heavily on capital-intensive landscape replication, a reference for transformation from "a global landscape showcase" to "a local, sustainable experience platform."

### *7.3 Limitations*

First, this paper is based mainly on publicly available materials and secondary literature, and does not yet incorporate first-hand interview or survey data from visitors, residents, corporate managers, or local merchants; the paper's judgments regarding visitors' cultural perceptions and residents' attitudes therefore remain

theoretical inferences rather than causal conclusions based on empirical measurement. Second, this paper is a single-case analysis, and the external applicability of its conclusions still needs to be tested through cross-case comparison with destinations such as Singapore and Las Vegas. Third, some indicators of green transformation and supply-chain reform require corporate operational data and third-party audit materials for support; future research could combine ESG reports, energy-consumption data, visitor behavior data, and community economic data for quantitative verification.

Overall, the non-gaming transformation of Macao's Cotai Strip is not merely a question of a gaming city seeking new sources of revenue, but a question of how it reshapes its own identity amid global tourism competition, the protection of local culture, and the demands of sustainable development. Only when integrated resorts can let visitors see not only "a transplanted world" but also come to understand "the real Macao" can their non-gaming transformation move from a policy requirement to a source of long-term competitiveness.

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