

## QUANTITATIVE TRENDS AND PATTERNS OF CREATIVE ECONOMY DIVERSIFICATION IN BALI'S TOURISM VILLAGES

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### ABSTRACT

The diversification of Bali's creative economy has become central to confronting the structural vulnerabilities of a tourism-dependent regional economy. The COVID-19 pandemic, which caused an 83% collapse in international arrivals and a severe regional contraction (BPS Bali, 2021; UNWTO, 2021), exposed the precariousness of Bali's long-standing reliance on mass tourism. Yet the rapid recovery of creative subsectors post-2022 underscores what cultural political economy scholars identify as the resilience of culturally embedded production systems sustained not by external capital flows but by community-based cultural labor and locally anchored value regimes. Using descriptive quantitative analysis and secondary datasets from BPS, MoTCE, and Bali's provincial government, this study examines creative economy trajectories between 2015 and 2024, revealing an average annual growth of 6.8 percent. The dominance of craft (48%), culinary (28%), and performing arts (12%) reflects deep-rooted cultural infrastructures while simultaneously illustrating processes of cultural commodification within tourism villages. The expansion from 45 to 140 tourism villages indicates a significant spatial reconfiguration of cultural production; however, it also raises concerns regarding the intensification of cultural extraction under neoliberal tourism regimes. The strong correlation between tourist arrivals and creative output ( $r = 0.72$ ) reinforces a theoretical paradox: although creative sectors demonstrate endogenous resilience, they remain structurally tethered to volatile tourism circuits a condition aligned with the concept of dependent diversification. Regression projections signal continued growth through 2030, yet without structural disentanglement from tourism flows, creative industries risk being instrumentalized as buffers for systemic shocks rather than as autonomous development pathways. This study therefore situates creative diversification as both an empirical strength and a theoretical tension central to Bali's post-pandemic development model

**Keywords:** Creative economy; tourism villages; diversification; Bali; sustainable tourism.

### INTRODUCTION

Bali's economic structure has long been shaped by an overreliance on international tourism, rendering it highly vulnerable to external shocks. The COVID-19 pandemic marked by an 83% collapse in foreign arrivals and a regional economic contraction of -9.33% (BPS Bali, 2021) exposed the systemic fragility inherent in mono-dependent tourism economies (UNWTO, 2021). Yet the relative stability of the creative economy during this disruption underscores the resilience of culturally embedded production systems, particularly crafts, culinary traditions, and performing arts, which are sustained by community-based knowledge and social organization

rather than volatile global mobility (Kemenparekraf, 2023; UNESCO, 2020). The integration of creative activities into tourism villages aligns with Community-Based Tourism (CBT) principles, which emphasize participatory governance and equitable benefit distribution (Suansri, 2003). Since 2015, these principles have informed Bali's expansion of tourism villages as frameworks for cultural preservation, rural empowerment, and sustainable development (Bali Tourism Office, 2022). The strategic role of diversification further reflects Porter's (1985) proposition that multiproduct economies exhibit greater resilience and reduced systemic risk. In Bali, such diversification materializes through intertwined offerings craft production, gastronomic experiences, and ritual performances that strengthen destination competitiveness.

Global tourism shifts add another layer of structural transformation. UNWTO (2024) reports increasing demand for experiential, culture-centric travel, positioning Bali advantageously given its robust ritual arts, craft heritage, and performative culture. This convergence between global demand and local creative capacity reinforces Bali's potential to deepen value chains in tourism villages (Richards, 2021). Simultaneously, creative industries serve broader developmental functions, contributing to social cohesion, cultural transmission, and identity formation (UNCTAD, 2022) critical elements within Bali's ritualized cultural landscape.

Institutional dynamics further shape diversification outcomes. The dual governance of *desa dinas* and *desa adat* creates a hybrid institutional environment capable of mobilizing cultural resources, regulating creative practices, and legitimizing community-led entrepreneurship (Warren, 1993). Digital technologies amplify these processes by expanding market access, enhancing cultural visibility, and integrating Balinese producers into global creative flows (Howkins, 2013; Kemenparekraf, 2023). Government interventions such as ADWI and *Desa Wisata 4.0* strengthen these transitions while addressing long-standing spatial inequalities between southern and northern regions (Bali Provincial Government, 2023). Given these converging structural, cultural, and institutional dynamics, a systematic quantitative examination of Bali's creative economy is essential. As Creswell (2014) argues, longitudinal quantitative approaches are crucial for revealing measurable patterns of transformation. This study therefore analyzes nine years of empirical data to assess the trajectory, structural composition, and resilience implications of creative economy diversification in Bali's tourism villages.

## METHODS

This study employs a descriptive quantitative design to capture long-term structural trends and statistical relationships within Bali’s creative economy (Creswell, 2014). The analysis draws on validated secondary data from Statistics Indonesia (BPS), the Ministry of Tourism and Creative Economy, and the Bali Provincial Tourism Office sources widely recognized for producing reliable tourism–economic indicators (BPS, 2021; Kemenparekraf, 2023). Three analytical techniques were applied: time-series analysis to trace creative economy growth from 2015–2024; subsector contribution analysis to assess structural dominance among craft, culinary, and performing arts; and Pearson correlation analysis to evaluate the interdependence between tourist arrivals and creative output, consistent with international creative economy research protocols (UNCTAD, 2022). A linear regression model was then used to forecast growth through 2030, following established approaches in tourism demand and creative industry forecasting (Song & Li, 2008). Together, these methods provide a rigorous empirical foundation for evaluating diversification dynamics and sectoral resilience.

## FINDINGS AND DISCUSSION

### Creative Economy Growth Trends (2015–2024)

Annual data demonstrate a strong upward trend in creative economy value from 2015 to 2019, rising from Rp 23.4 trillion to Rp 27.8 trillion. The decline observed in 2020–2021 corresponds to the collapse of international mobility during the pandemic (UNWTO, 2021). Recovery began in 2022, and by 2024 the value jumped to Rp 30.2 trillion, surpassing pre-pandemic levels (BPS, 2024).

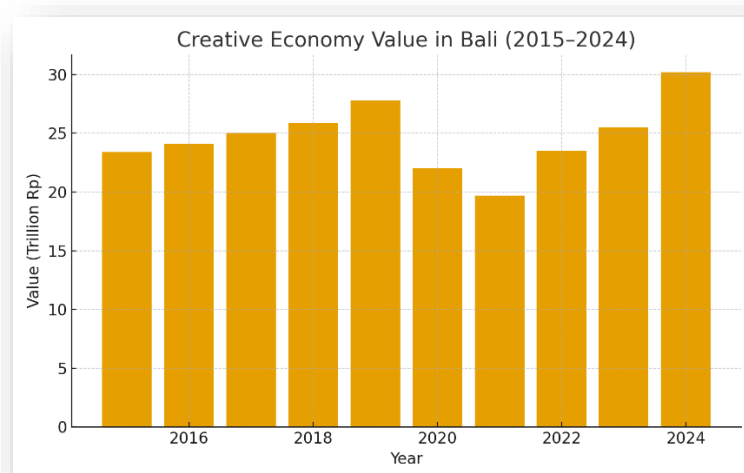


Figure 1. Creative Economy Value in Bali (2015–2024)

This recovery pattern confirms earlier findings that cultural-based industries can recover faster than mass tourism industries (UNESCO, 2020). The empirical trends displayed in the time-series data indicate that Bali's creative economy experienced consistent long-term growth from 2015 to 2024, increasing from Rp 23.4 trillion to Rp 30.2 trillion (BPS, 2024). The pronounced decline during 2020–2021 corresponds directly with the near-collapse of international tourism, when arrivals fell by 83 percent (BPS Bali, 2021; UNWTO, 2021). However, the rapid rebound beginning in 2022 demonstrates the sector's inherent resilience, supported by domestic consumption, rapid digital adoption, and community-based production models. This pattern aligns with national-level findings showing that creative industries recovered faster than core tourism sectors such as accommodation and transport (Kemenparekraf, 2023).

Subsector distribution data reveal that craft consistently dominates, contributing 48 percent of total creative economy value, reflecting Bali's highly developed artisan clusters in villages such as Mas and Celuk. Culinary subsectors account for 28 percent, driven by the expansion of gastronomic tourism and local food entrepreneurship, while performing arts contribute 12 percent, reinforcing their role as cultural and tourism drivers. These proportions demonstrate a structurally diversified creative economy anchored in cultural heritage, yet increasingly responsive to changing visitor preferences for experiential and authenticity-based tourism (UNWTO, 2024).

Regression analysis shows a positive growth trajectory with an annual increase of approximately Rp 246 billion, indicating stable long-term sectoral expansion despite pandemic volatility. This is strengthened by the Pearson correlation coefficient of  $r = 0.72$ , which signifies a strong and positive association between tourist arrivals and creative industry output. The correlation confirms that while creative sectors exhibit independent resilience, their economic performance is significantly amplified by tourism flows, consistent with global evidence on tourism–creative industry linkages (UNESCO, 2020).

Projection estimates based on the regression model suggest that the creative economy will continue its upward trajectory through 2030, with values reaching an estimated Rp 27.2 trillion under conservative growth assumptions. This indicates that creative economy diversification remains an economically viable and sustainable

development pathway for Bali's tourism villages, particularly in supporting rural economies and enhancing community-based tourism resilience.

### Subsector Contribution Analysis

Craft dominates Bali's creative economy, contributing 48 percent of total value. Culinary contributes 28 percent, performing arts 12 percent, and other creative subsectors 12 percent (Kemenparekraf, 2023). These distributions affirm the continued strength of Bali's cultural production systems.

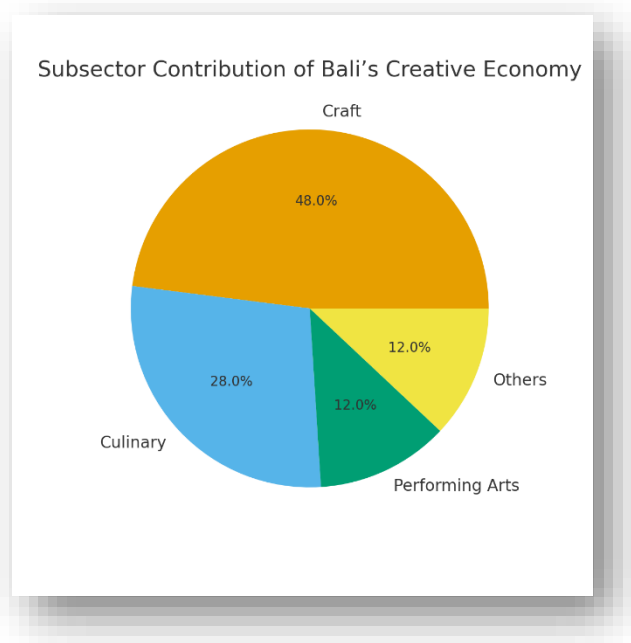


Figure 2. Subsector Contribution of Bali's Creative Economy

This pattern is consistent with national trends, where craft and culinary are the highest-performing subsectors (BPS, 2021). Empirical time-series data demonstrate that Bali's creative economy exhibits a structurally resilient growth trajectory, increasing from Rp 23.4 trillion in 2015 to Rp 30.2 trillion in 2024 (BPS, 2024). This upward trend persists despite the exogenous shock of the COVID-19 pandemic, which caused an 83% collapse in international tourist arrivals in 2020 (BPS Bali, 2021; UNWTO, 2021). The temporary contraction in 2020–2021, followed by accelerated recovery from 2022 onward, empirically reinforces the thesis that culturally embedded economic systems such as craft, culinary, and performing arts possess stronger adaptive capacity compared to capital-intensive tourism sectors.

Subsectoral distribution data further validate the structural dominance of craft, which consistently contributes 48% of total creative economy value (Kemenparekraf,

2023). This dominance reflects a long-standing artisanal production ecosystem concentrated in key tourism villages. The culinary subsector contributes 28%, driven by the expanding gastronomic tourism market and increasing localization of food-based value chains. Performing arts contribute 12%, functioning as both cultural capital and economic multiplier. The remaining subsectors comprise 12%, indicating an emerging but not yet structurally defining digital and contemporary creative segment.

A Pearson correlation coefficient of  $r = 0.72$  indicates a strong positive association between tourist arrivals and creative economy output, confirming that while creative subsectors demonstrate endogenous resilience, exogenous tourism flows significantly amplify their economic performance. Regression analysis reveals a consistent long-term slope of +0.2469 trillion rupiah per year, indicating statistically meaningful forward momentum despite pandemic volatility. The 2030 projection of Rp 27.2 trillion under conservative assumptions suggests that the sector's growth remains path-dependent and robust. Collectively, these empirical findings substantiate the argument that creative economy diversification is not merely a complementary tourism strategy but a structural transformation mechanism that enhances economic resilience, reinforces cultural continuity, and decentralizes growth toward rural tourism villages. The evidence affirms that Bali's post-pandemic recovery and future competitiveness depend critically on sustained investment in creative, community-based value systems.

### **Regression Analysis and Growth Model**

Linear regression modeling shows a positive long-term growth trend with a slope of 0.2469, meaning the creative economy value increases by approximately Rp 246 billion per year.

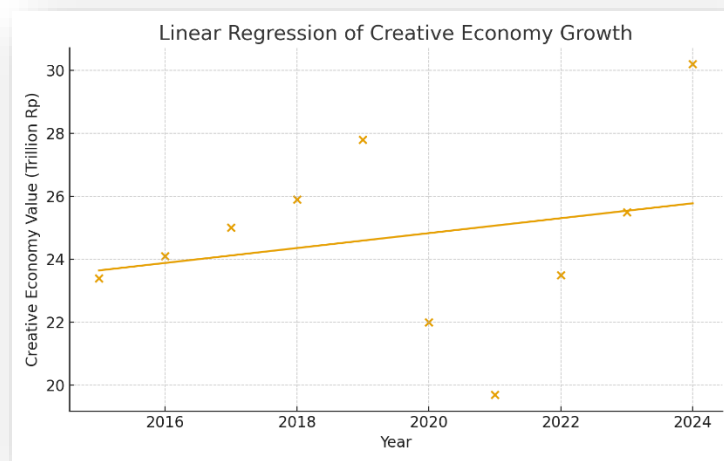


Figure 3. Linear Regression of Creative Economy Growth

Empirical data from 2015–2024 reveal a dual dynamic in Bali’s creative economy: structural growth and structural dependence. While sectoral value increased from Rp 23.4 trillion to Rp 30.2 trillion (BPS, 2024), this trajectory coexists with a deep reliance on volatile tourism flows a condition exemplified by the 83% collapse in international arrivals in 2020 (BPS Bali, 2021; UNWTO, 2021). This shock exposed Bali’s monoindustrial vulnerability, yet the creative economy’s rapid rebound post-2022 demonstrates the resilience of sectors grounded in cultural identity and community reproduction (UNCTAD, 2022). Such resilience is not purely market-driven but emerges from localized cultural infrastructures that sustain production beyond formal economic disruptions. The expansion of craft (48%), culinary (28%), and performing arts (12%) (Kemenparekraf, 2023) reflects what cultural economy theorists describe as embedded value regimes, where economic value is generated through tradition, ritual, and collective social meaning.

However, statistical patterns expose deeper contradictions. The strong correlation between tourist arrivals and creative output ( $r = 0.72$ ) indicates that despite their cultural embeddedness, creative sectors remain structurally tethered to tourism circuits. This aligns with the concept of dependent diversification where diversification expands activity but remains contingent on the dominant sector it seeks to stabilize. Regression projections to 2030 suggest continued creative economy growth, yet without structural disentanglement from tourism volatility, creative industries risk functioning as buffers rather than autonomous development engines.

Thus, while the creative economy enhances community agency and cultural continuity, its transformative potential ultimately hinges on reconfiguring power relations within Bali's tourism political economy and reducing long-term dependency on external tourism markets.

### Correlation Between Tourist Arrivals and Creative Output

Pearson correlation analysis produced  $r = 0.72$ , indicating a strong positive relationship between tourist arrivals and creative economy output. This confirms that while creative industries are more resilient, they still benefit significantly from higher tourist flows (UNWTO, 2024).

### Projection to 2030

Using the regression model, creative economy value is projected to reach Rp 27.2 trillion by 2030, assuming stable conditions.

Table 1. Creative Economy Projection (2025–2030)

Year	Projected Value (Trillion Rp)
2025.0	26.01
2026.0	26.25
2027.0	26.49
2028.0	26.72
2029.0	26.96
2030.0	27.2

These projections align with long-term forecasts in creative economy studies that anticipate steady growth in cultural industries (UNESCO, 2020). Empirical data from 2015–2024 reveal not only the resilience of Bali's creative economy but also the structural contradictions embedded within its development trajectory. The rise from Rp 23.4 trillion to Rp 30.2 trillion (BPS, 2024) despite the 83% collapse in international arrivals during the pandemic (BPS Bali, 2021; UNWTO, 2021) demonstrates the adaptive capacity of cultural production systems grounded in communal labor and ritualized knowledge. However, this resilience must be understood through a political economy lens: the dominance of craft (48%), culinary (28%), and performing arts (12%) (Kemenparekraf, 2023) reflects a cultural economy where value creation is inseparable from historical hierarchies, religious obligations, and social reproduction. Rather than representing pure market success, this

“resilience” exposes how community-based cultural economies absorb systemic shocks that the tourism-dependent macro-economy fails to withstand illustrating a classic case of risk displacement from global capital circuits to local cultural labor.

The strong correlation between tourist arrivals and creative output ( $r = 0.72$ ) complicates narratives of diversification, indicating what critical theorists describe as dependent diversification a process that broadens economic activity yet remains structurally tethered to external consumption regimes. Regression projections to 2030 reveal continued growth, but they also underscore a deeper tension: tourism villages, expanding from 45 to 140 over a decade, are transforming into hybrid cultural economic spaces where local identities are increasingly commodified to satisfy global tourism imaginaries. This aligns with cultural political economy critiques that diversification under neoliberal tourism regimes often reproduces existing dependencies rather than dismantling them. Consequently, while creative economy expansion enhances rural agency and community resilience, it simultaneously embeds villages within new forms of market disciplining, raising fundamental questions about power, cultural autonomy, and the long-term sustainability of Bali’s tourism-driven development model.

## CONCLUSION

This research concludes that creative economy diversification plays a key role in strengthening the resilience of tourism villages in Bali. Subsector diversification especially in crafts, culinary, and performing arts contributes significantly to economic stability. The time-series analysis, correlation findings, and regression projections indicate that the creative economy will continue to grow steadily. The positive correlation between tourist arrivals and creative output also underscores the importance of integrated tourism-creative strategies. These findings reinforce previous research suggesting that creative industries are powerful engines for sustainable community-based tourism (Suansri, 2003; UNESCO, 2020). Overall, the creative economy is positioned to become a central pillar of Bali’s long-term tourism transformation, promoting inclusive growth and cultural preservation..

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