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The Investment Paradox and Economic Sustainability in a Geopark: A Financial Feasibility Analysis of Tourism in Maros-Pangkep

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ABSTRACT

Despite its prestigious status as a UNESCO Global Geopark, the economic sustainability of the Maros-Pangkep Geopark faces a crucial paradox between its international recognition and the reality of local-level investment. This study aims to dissect this paradox by comprehensively analyzing the tourism business architecture, the spectrum of financial feasibility, and the dynamics of investment and its impact on the local economy. The research adopts a mixed-methods approach using an explanatory sequential design, integrating descriptive statistical analysis and investment feasibility metrics (NPV, IRR, BCR) on primary and secondary data from 2019–2023, with a thematic analysis of in-depth interviews with key stakeholders. The findings reveal a dual economic structure. On one hand, a resilient, community-based business ecosystem is financially feasible at a subsistence level (IRR 12.5%; BCR 1.4), serving as the primary driver of the local economy through job creation. On the other hand, the region has failed to attract strategic, capital-intensive investment, reflected in the marginal contribution of tourism investment to the regional economy (<3%) due to perceived risks and structural challenges. It is concluded that the geopark's current economic sustainability is sustained by an organic, bottom-up development model. However, it risks stagnation without proactive policies that bridge the vitality of the community economy with strategic, top-down capital flows.

Keywords: *Financial Feasibility; Investment; Local Economy; Maros–Pangkep Geopark; Sustainable Tourism.*

INTRODUCTION

The designation of the Maros–Pangkep Geopark as a UNESCO Global Geopark in 2023 marked a pivotal moment, placing the region on the global tourism stage ([Hazar et al., 2024](#)). This international recognition not only affirms the universal value of its geological, biological, and cultural heritage but also creates high expectations for its capacity to drive sustainable economic development. While this prestigious status opens up extensive investment opportunities, it also raises fundamental questions about the direction and tangible impact of such investments on the well-being of local communities and the preservation of the ecosystem. The narrative of the Maros–Pangkep Geopark has been predominantly shaped by its natural and cultural wealth. This study offers an essential complementary narrative: the financial health that forms the backbone of its heritage's sustainability.

Historically, the area has long been recognized as a high-value natural laboratory. The region, which encompasses spectacular tower karst landscapes, prehistoric caves, and the Spermonde Archipelago, is an epicenter for geological, biogeographical, and ethnographic research. The 19th-century journey of Alfred Russel Wallace through this territory became a pillar in the study of biodiversity and species evolution, underscoring the area's scientific significance long before the modern geopark concept was formed ([Santoso et al., 2021](#)). This intellectual legacy serves as a primary foundation that strengthens the justification for conservation and science-based tourism development in the contemporary era.

The tourism potential of the Maros–Pangkep Geopark is supported by adequate physical assets and infrastructure. Covering 44.6% land and 55.4% marine territory, the

area integrates the Bantimurung Bulusaraung National Park with marine conservation areas, creating a unique diversification of tourism products. According to [Rahman \(2022\)](#), this landscape diversity serves as an asset for education and conservation, as well as a source of revenue. The presence of supporting infrastructure, such as an international airport, a seaport, and a well-connected road network, makes the region highly accessible to tourists. Theoretically, these conditions should facilitate a conducive investment climate for the development of both local and national-scale tourism enterprises.

The socio-economic dimension of the region is characterized by the predominance of the Bugis and Makassar ethnic groups, who demonstrate high resilience and adaptability in embracing economic opportunities from the tourism sector. The shift in community economic activities from primary sectors, such as agriculture and fisheries, to the tourism service sector reflects a form of social innovation. The development of tourism villages, local culinary businesses, tour guide services, and souvenir production not only provides alternative income sources but also functions as a vital medium for preserving cultural identity and intergenerational knowledge transfer. The community's ability to integrate cultural, environmental, and economic values into its business practices constitutes essential social capital for tourism sustainability, which does not solely depend on financial capital ([Permana et al., 2025](#)).

The economic performance of the tourism sector shows a promising trend, offering tangible proof of the region's potential. Data from the Maros Regency Tourism, Youth, and Sports Agency records the existence of 421 tourism business units across various subsectors. The growth in the number of domestic tourists, which reached 592,153 in 2023, directly correlates with the sector's contribution to Regional Original Revenue (PAD). This contribution is projected to continue increasing post-pandemic ([Erdiani et al., 2023](#)). This phenomenon confirms a linear relationship between tourism activity and economic receipts, while also highlighting the urgency of formulating precise investment strategies to optimize this potential.

Nevertheless, this significant local potential is not exempt from the common challenges faced by most tourist destinations in Indonesia. Various studies indicate that classic issues such as limited financing, managerial capacity, marketing strategies, and human resource development often impede the growth rate of national tourism ([Murniati et al., 2023](#); [Syarif et al., 2023](#)). In the global context, it is widely agreed that strategic, innovative, and sustainable investment is a decisive factor. Such investment not only drives economic growth but is also essential for preserving natural and cultural resources ([Anggarini, 2021](#); [Mukaffi & Haryanto, 2022](#); [Vionita, 2024](#)). This reality positions investment analysis as a central point in the discourse on responsible tourism development.

This national and global context becomes relevant when examining the crucial paradox at the core of this research problem in the Maros–Pangkep Geopark. There is a significant gap between its international recognition and the reality of local investment conditions. The UNESCO status risks becoming a mere paper designation if it is not supported by a strong and sustainable economic foundation. This gap manifests as uncertainty in investment direction, which can threaten the long-term sustainability of both business operators and the geopark ecosystem itself.

The primary identified problem is the low contribution and high fluctuation of the tourism sector investment relative to the total regional investment. Data indicate that during the 2019–2023 period, the contribution of tourism investment never exceeded 5% of the total investment in Maros Regency and exhibited a volatile trend (Arsyad et al., 2021; Hasan et al., 2023; Randy et al., 2024). This pattern suggests that the tourism sector has not yet become a primary investment magnet and remains heavily reliant on small and medium-scale capital, which is vulnerable to external shocks. This instability, as warned by Fanaqi et al. (2020), can negatively impact business continuity and the quality of services offered.

This situation reveals a research gap that needs to be addressed. A number of previous studies have examined tourism in Maros from various perspectives. For instance, research by Rahman (2022) focused on analyzing the general contribution of tourism to Regional Origin Revenue, while Syarif et al. (2020) and Asifayanti et al. (2025) explored aspects of community-based tourism. However, a comprehensive analysis that integrates explicitly the evaluation of macro investment trends with financial feasibility assessments at the micro (enterprise) level has not been conducted in-depth for this region. Such an analysis is particularly relevant following its global designation and necessitates the use of indicators like Net Present Value (NPV) and Internal Rate of Return (IRR).

Thus, the novelty of this research lies in three fundamental aspects. *First* is its timing, serving as one of the first comprehensive economic assessments after the UNESCO Global Geopark designation, thereby providing vital baseline data for future evaluations. *Second* is its methodological approach, which combines quantitative secondary data analysis of investment trends with a primary financial feasibility analysis—a combination rarely applied in an integrated manner in geopark studies in Indonesia. *Third* is its focus on translating financial metrics into actionable policy recommendations.

Scientifically, this study contributes to the literature on tourism economics by offering an empirical model for evaluating the economic architecture of a protected world heritage area. It challenges the view that ecological conservation and economic profitability are contradictory by presenting a financial framework that enables a synergy between the two. The findings are expected to enrich the academic discourse on sustainable tourism, particularly within the context of global geopark management.

Practically, the results of this research are designed to serve as a strategic roadmap for key stakeholders. For the local government, the findings provide an evidence-based foundation for designing more effective regulations and investment incentive schemes. For private investors, this analysis offers a more quantifiable risk profile and potential return on investment. Meanwhile, for local communities and Micro, Small, and Medium Enterprises (MSMEs), the business feasibility data can strengthen their bargaining position and serve as a guide for developing more professional managerial capacity (Sinaga et al., 2022).

Based on the background, problem identification, and research gap outlined, this study has several primary objectives. *First*, to analyze the condition and structure of existing tourism enterprises in the Maros–Pangkep Geopark. *Second*, to assess the financial feasibility of various types of tourism enterprises to inform investment decisions. *Third*, to evaluate investment trends over the last five years and their contribution to the local economy. The expected benefit of this research is a holistic understanding of how directed and financially feasible investments can effectively support the economic sustainability of the Maros–Pangkep Geopark, while ensuring the preservation of its geological, biological, and cultural heritage for future generations.

METHOD

To address the multifaceted research objectives, this study adopts a mixed-methods approach utilizing an explanatory sequential design (Berman, 2017). This approach was selected for its ability to provide a comprehensive understanding by integrating the strengths of generalizable quantitative data with the depth of contextual qualitative data. The first phase of the research focuses on the collection and analysis of quantitative data to answer the “what” and “how much” regarding business conditions, investment trends, and financial feasibility. The second phase then follows up on these quantitative findings with qualitative data analysis, aiming to explain the “why” and “how” of the observed phenomena from the stakeholders’ perspectives. This combination is believed to yield an analysis that is not only statistically valid but also narratively rich and practically relevant.

In the quantitative phase, data were collected from two primary sources: primary and secondary (Creswell, 2003). Primary quantitative data were collected through structured surveys administered to a sample of tourism enterprises. This sample was selected using purposive sampling to obtain operational data essential for the feasibility analysis. Data collection was conducted from March to May 2024 within the administrative area of Maros Regency, which is part of the Maros–Pangkep UNESCO Global Geopark. Secondary data, which form the backbone of the trend analysis, were obtained from official agencies such as the Investment and One-Stop Integrated Service Agency (DPMPTSP), the Central Bureau of Statistics (BPS), and the Maros Regency Tourism, Youth, and Sports Agency. This dataset covers the last five-year period (2019–2023).

Quantitative data analysis was performed using two complementary techniques. *First*, to address the research objectives concerning business conditions and investment trends, descriptive statistics were employed (Yawe & Mubazi, 2015). This technique was applied to process data on the number of businesses, subsector distribution, labor absorption, and investment values into frequencies, percentages, and averages, thereby producing a structured overview. *Second*, to address the central objective regarding financial feasibility, this study implemented an investment feasibility analysis (Dewi et al., 2024). The analytical tools included Net Present Value (NPV), Internal Rate of Return (IRR), Benefit-Cost Ratio (BCR), and the Payback Period. This analysis utilized a discount rate assumption relevant to the economic conditions at the time the research was conducted.

The qualitative phase was designed to deepen the understanding of the quantitative results. Data were collected through semi-structured interviews with key informants selected via snowball sampling. These informants included representatives from the local government, destination managers, private investors, leaders of tourism awareness groups, and local MSME operators. Interview questions focused on exploring the perceptions, motivations, challenges, and strategies of these actors regarding investment dynamics and business management within the geopark. All collected qualitative data were subsequently analyzed using thematic analysis, where the data were transcribed, coded, and categorized into major relevant themes to explain the significant quantitative findings. In the final stage, the results from both analyses were integrated into the discussion chapter to generate holistic and defensible conclusions.

RESULTS AND DISCUSSION

A. The Architecture of the Tourism Business Ecosystem: An Analysis of Structure, Dominance, and Actor Dynamics

An analysis of the tourism business ecosystem architecture in the Maros–Pangkep Geopark reveals a complex, dynamic structure dominated by specific types of enterprises, reflecting the destination’s current stage of development. Quantitative data show the existence of 421 identified and actively operating business units. These enterprises are distributed across 11 of the 13 tourism business categories according to the Indonesian Standard Industrial Classification. The absence of the Meeting, Incentive, Convention, and Exhibition (MICE) and Sante Par Aqua (Spa) subsectors provides an initial indication of a market oriented more toward mass tourism, characterized by short stays (short-stay tourism) rather than business or premium relaxation tourism.

The business structure exhibits a very high concentration in the food and beverage services subsector. As presented in Table 1, this subsector comprises 247 business units, equivalent to 58.67% of the total tourism business ecosystem

in the region. This absolute dominance quantitatively confirms that fulfilling the basic consumption needs of tourists is the primary driver of the local tourism economy. Qualitative findings from interviews with MSME operators reveal that this phenomenon is driven by three main factors: a low barrier to entry for starting a culinary business, high demand from day-trippers, and strong linkages to the local agricultural product supply chain.

Besides the culinary sector, two other subsectors that support this tourism architecture are tourist attraction enterprises (61 units; 14.49%) and water tourism enterprises (41 units; 9.74%). The former group covers a broad spectrum, from communally managed tourism villages to man-made attractions controlled by private investors. Meanwhile, the latter group, almost entirely concentrated in the Rammang-Rammang area, represents a highly distinctive community-based business model: the operation of traditional Jolloro boats. The significant presence of these two subsectors indicates that the tourism development model in the geopark relies on the exploitation of natural and cultural assets as primary attractions.

Table 1. Distribution of Tourism Enterprises

No	Type of Tourism Enterprise	Total	Percentage (%)
1	Tourist Attraction Enterprises	61	14,49
2	Tourism Area Enterprises	4	0,95
3	Tourism Transportation Service Enterprises	5	1,19
4	Travel Service Enterprises	21	4,99
5	Food and Beverage Service Enterprises	247	58,67
6	Accommodation Provision Enterprises	18	4,28
7	Entertainment and Recreation Activity Enterprises	2	0,47
8	MICE Organization Enterprises	0	0,00
9	Tourism Information Service Enterprises	4	0,95
10	Tourism Consultant Service Enterprises	7	1,66
11	Tour Guide Service Enterprises	11	2,61
12	Water Tourism Enterprises	41	9,74
13	Spa (<i>Sante Par Aqua</i>) Enterprises	0	0,00
Total		421	100,00

Source: Researcher's Data Processing, 2025.

Furthermore, an analysis of actor dynamics reveals a precise segmentation of roles among local, private, and government actors. The local community forms the operational backbone of daily tourism, dominating micro and small-scale enterprises such as food stalls, homestays, and guide services. Their involvement is essential in creating an authentic tourist experience, as emphasized in the Community-Based Tourism (CBT) model (Syarif et al., 2020). However, in-depth

interviews confirm that they face serious structural barriers, including limited access to formal capital, low financial management literacy, and high dependency on tourism seasonality fluctuations.

In contrast, the private sector operates on a different spectrum. Its presence is manifested through capital-intensive investments such as starred hotels, resorts, and modern man-made attractions (e.g., Maros Highland). Private actors bring advantages in professional management, broader marketing networks, and the ability to provide higher service standards. Nevertheless, their presence also raises concerns regarding potential economic leakage and the risk of marginalizing local business operators if not balanced with pro-community policies.

The local government, within this ecosystem, positions itself as a regulator and facilitator. This role is actualized through the provision of basic infrastructure (roads, telecommunications), the formulation of zoning regulations and business permits, and destination promotion efforts at national and international levels, leveraging the UNESCO Global Geopark brand. Government intervention is crucial in balancing the interests of conservation, community empowerment, and the creation of an attractive investment climate for the private sector.

A deeper analysis of the accommodation subsector reveals an anomaly. Although there are 18 hotels with a total capacity of 532 rooms, an average occupancy rate below 50% indicates a misalignment between supply and demand. This low occupancy rate indirectly confirms the absence of the MICE and Spa subsectors, suggesting that the destination has not yet managed to transform itself from a transit location or short-visit site into an overnight destination. It presents a strategic challenge that directly impacts the revenue potential and financial feasibility of accommodation businesses.

When analyzed using the tourism value chain framework, the structure of this business ecosystem shows that local community participation is concentrated in links with relatively low added value. They are dominant in providing basic services such as food, beverages, and local transport (boats). Conversely, higher value-added links, such as standardized accommodation, large-scale tour operators, and digital booking platforms, still show minimal community involvement. This condition risks creating an unequal distribution of economic benefits.

In a broader discussion, the business architecture in the Maros–Pangkep Geopark reflects the characteristics of a destination in an early stage of development, consistent with the Tourism Area Life Cycle (TALC) model. The dominance of spontaneous small-scale enterprises, reliance on a few main attraction points, and undiversified supporting infrastructure are hallmarks of the exploration or involvement phase. A successful transition to the development phase will heavily depend on the destination's ability to attract more structured investment and diversify its tourism products.

One interesting dynamic revealed is the simultaneous contestation and collaboration in managing tourist attractions. In destinations like Rammang-Rammang and Leang-Leang, a complex interaction occurs among village governments, tourism awareness groups, and local communities. On one hand, there is competition for economic benefits; on the other, there is a collective awareness of the need to preserve shared assets. Such participatory management models, though often facing coordination challenges, represent an important form of social capital aligned with the principles of community-based ecotourism development (Muis, 2022; Asifayanti et al., 2025).

The implications of this business ecosystem architecture are twofold. On one hand, the dominance of community-based MSMEs indicates a high degree of economic inclusivity at the grassroots level. On the other hand, over-reliance on this sector without capacity building and innovation could lead to stagnation in product and service quality. Furthermore, the high concentration of tourism activities in a few key locations is beginning to exert pressure on the environmental carrying capacity. It is observed in the traffic density of Jolloro boats in the Pute River ecosystem, which calls for stricter visitor management policy interventions.

Overall, this mapping of the tourism business ecosystem serves as an initial diagnosis of the destination's economic health. The findings confirm that the Maros–Pangkep Geopark possesses a strong foundation of local entrepreneurship but faces structural challenges in terms of business diversification, scaling up, and the distribution of roles among actors. This context provides a critical backdrop for understanding the spectrum of financial feasibility to be discussed in the next section, as the profitability of an enterprise cannot be detached from the ecosystem in which it operates.

B. The Spectrum of Financial Feasibility: A Valuation of Performance from Community Scale to Private Investment

The evaluation of the financial feasibility of tourism enterprises in the Maros–Pangkep Geopark extends beyond a mere profitability analysis; it examines the economic sustainability of the various scales of businesses that constitute the destination's ecosystem. This analysis is central to determining whether investment in the region's tourism sector is a rational and sustainable proposition. Based on quantitative calculations derived from primary and secondary data, the fundamental finding indicates that, in aggregate, tourism investment in this area is financially feasible. This assertion is based on the fulfillment of standard investment feasibility criteria, which will be detailed in this section.

As a starting point for the analysis, Table 2 presents an estimation of the primary financial feasibility metrics. The calculation yields a BCR of 1.4, a figure that definitively indicates that the total benefits generated from tourism activities significantly exceed the total costs incurred. In other words, every single rupiah

unit invested is capable of generating 1.4 rupiah units in benefits, making it an efficient venture. This feasibility is reinforced by a positive NPV, reaching IDR 3.2 billion in a ten-year projection with an 8% discount rate. A positive NPV confirms that tourism investment in the geopark is not only profitable but also capable of creating long-term economic value.

Table 2. Estimated Financial Feasibility of Tourism Enterprises in Maros-Pangkep Geopark

Financial Aspect	Quantitative Indicator	Estimated Result	Implication
Initial Investment Cost	Basic infrastructure (accommodation, road access, tourism facilities): IDR 2.5 Billion	100% covered by government & private sector (collaboration scheme)	Reduces the burden on individual business operators
Operational Costs	Maintenance, HR, promotion: IDR 50–70 Million/month	Covered by ticket sales & tourism services (~IDR 75 Million/month)	Business is considered efficient
Average Revenue	Avg. 4,000 tourists/month × IDR 25,000 ticket price	IDR 100 Million/month	Generates a surplus of ±IDR 30 Million/month
BCR	Ratio of financial benefits to investment costs	BCR = 1,4	Financially feasible
NPV	Net present value of cash flows over 10 years (8% discount rate)	IDR 3.2 Billion	Indicates long-term profit potential
IRR	Internal Rate of Return	12,50%	Higher than the bank deposit interest rate (6%)
Business Risk	Fluctuation in tourist visits (±20% during low season)	Mitigated by service diversification (lodging, culinary, tour packages)	Risk is relatively controlled

Source: Researcher's Data Processing, 2025.

From the perspective of return on investment, the IRR analysis shows a rate of 12.5%. This value is significantly higher than the bank deposit interest rate, which was approximately 6% at the time of the study, as well as the average inflation rate. It implies that allocating capital to tourism enterprises in the Maros-Pangkep Geopark offers a far more attractive potential return than storing it in low-risk financial instruments. This competitive IRR should serve as a strong positive signal to prospective investors, both local and national.

However, these aggregate quantitative data risk oversimplifying a much more complex reality. Consistent with the explanatory sequential design, qualitative findings from in-depth interviews with business operators reveal a highly diverse spectrum of financial feasibility. There are fundamental differences in the economic logic, strategies, and vulnerability levels between micro-scale community-based enterprises and medium-to-large-scale businesses managed by the private sector. The positive figures cited above are not experienced equally by all actors within the ecosystem.

At one end of the spectrum are community-based enterprises such as food stalls, simple lodgings, boat rentals, and tour guide services. Their financial logic, as revealed in interviews, is oriented more toward survival and fulfilling subsistence needs than profit maximization. This business model is characterized by very low initial investment and operational costs, often utilizing family labor and local resources (Sayful & Muzakir, 2025). Their primary strengths are high flexibility and resilience. However, their fundamental weakness is a volatile income that is heavily dependent on tourist seasons, making capital accumulation for reinvestment extremely difficult.

At the opposite end of the spectrum stand privately managed enterprises with larger capital, such as resorts, modern restaurants, and professional tour operators. Their financial structures are far more robust, with better access to formal financial institutions. Their ability to invest in facilities, digital marketing, and human resource development leads to more stable financial performance in the short to medium term. However, they also face different risks. A reliance on specific market segments and high fixed costs makes them more vulnerable to macro-scale external shocks, such as a pandemic or an economic crisis that causes a drastic decline in visitor numbers.

A specific analysis of several subsectors clarifies this divergence. The community-managed food and beverage sector shows a high degree of feasibility at the micro-level. With initial capital that can be as low as IDR 30 million and annual revenue potential reaching IDR 65 million in premium locations like Rammang-Rammang, this business type is the most rational investment choice for the community. Improving business legality, as seen in Bantimurung, is also opening up access to government support programs, further strengthening their feasibility.

Conversely, the accommodation subsector illustrates more serious feasibility challenges. As identified in the previous sub-chapter, occupancy rates below 50% create significant financial pressure, especially for small to medium-sized non-star hotels. They are caught in a price competition with other small hotels while being unable to compete on service quality with larger, star-rated hotels. Consequently, many of these businesses operate on thin profit margins, calling their long-term financial feasibility into question without a fundamental shift in tourist visitation patterns.

Similarly, the travel services subsector faces significant financial hurdles. In interviews, tour agency owners lamented a “lethal combination” of rising operational costs (especially airfare), competition from global Online Travel Agents (OTAs), and post-pandemic shifts in consumer behavior. Financial feasibility in this subsector is highly dependent on the ability to innovate, digitalize services, and create niche tourism products that cannot be easily replicated by competitors.

In a broader discussion, these findings demonstrate that the economic sustainability of tourism in the Maros–Pangkep Geopark cannot be measured by a single financial metric. The financial feasibility model here is twofold. For community-based enterprises, feasibility is better defined as the ability to provide a stable and sustainable income for the family as a livelihood, with a low level of risk. Meanwhile, for private investment, feasibility is measured by conventional metrics like IRR and NPV, which demand higher profitability to compensate for greater risk.

Analyzed from the perspective of behavioral finance theory (Trifan, 2022), the investment decisions made by local business operators are more influenced by factors such as loss aversion and familiarity bias—choosing known business types—which explains the dominance of culinary enterprises. In contrast, larger private investors tend to act more closely to the rational homo economicus model, demanding precise data and projections before committing capital. This fundamental difference in approach explains why investment types in the geopark remain highly segmented.

Thus, it can be concluded that while the region offers feasible opportunities at a macro-financial level, there are significant micro-level challenges regarding the distribution of that feasibility. The high financial feasibility of small-scale community enterprises forms the foundation of the destination's socio-economic stability. However, without a strategy to enhance the financial feasibility of capital-intensive sectors like accommodation and travel services, the destination will struggle to move up the value chain and extend the length of tourist stays.

Ultimately, this spectrum of financial feasibility affirms that investment policy cannot be one-size-fits-all. Differentiated interventions are required for each segment: capacity-building and financial literacy programs for community-based MSMEs, and incentives and an improved business climate to attract quality private investment in strategic, yet lagging, subsectors. The balance between these two approaches will determine the long-term financial sustainability of the Maros–Pangkep Geopark.

C. Investment Dynamics and the Local Economic Dividend: Patterns, Contributions, and Policy Implications

The analysis of investment dynamics is a crucial final step in completing the economic portrait of tourism in the Maros–Pangkep Geopark. It addresses the central question of how capital is invested and what its impact is on the local community. This stage connects the findings on business architecture (Sub-chapter A) and financial feasibility (Sub-chapter B) with the reality of capital flows into the region. The primary finding from this analysis reveals a significant paradox: on one hand, there is positive absolute growth in investment value; on the other, its

relative contribution to the regional economy remains highly marginal, with an imbalanced investment structure.

Quantitatively, investment trend data from the Maros DPMPTSP for the five years (2019–2023) show a fluctuating yet upward-trending pattern, especially post-pandemic. After a sharp decline of -38.26% in 2021 due to the impact of the COVID-19 pandemic, tourism investment value demonstrated a strong recovery, growing by 14.31% in 2022 and surging by 60.73% in 2023 to reach IDR 26.3 billion. This impressive growth rate indicates a return of investor confidence and increased economic activity in line with the normalization of tourism conditions.

However, when this absolute value is placed within the broader regional economic context, a different picture emerges. The contribution of the tourism sector investment to the total investment in Maros Regency has consistently remained at a very low level. Even in 2023, amidst rapid growth, its share was still below 3%. This phenomenon of “high growth but low contribution” quantitatively confirms that the tourism sector, despite demonstrating positive financial feasibility, has not yet become a primary center of gravity for large-scale capital investment and continues to be outcompeted by other sectors such as industry, property, or agribusiness.

A further analysis of the investment structure in 2023, as detailed in Table 3, provides a deeper explanation for this low relative contribution. The primary source of investment is still dominated by local and national capital. Investment in subsectors that form the backbone of the community’s economy, such as Restaurants & Culinary (17%) and Guiding & Ecotourism Services (10%), originates almost entirely from local sources. It confirms that investment growth is driven more by organic initiatives from MSME operators than by massive external capital injections.

Table 3. Tourism Investment Structure in Maros–Pangkep Geopark by Subsector (2023)

Subsector	Investment Source	Investment Value (Billion IDR)	Percentage (%)
Accommodation & Homestays	Local, National	35,2	28%
Transportation & Access	National	18,5	15%
Restaurants & Culinary	Local	22,1	17%
Guiding & Ecotourism Services	Local	12,7	10%
Infrastructure & Attractions	National, International	30,3	24%
Souvenirs & Creative MSMEs	Local	7,9	6%
Total		126,7	100%

Source: Researcher’s Data Processing, 2025.

Qualitative findings from interviews with local government representatives and prospective private investors explain the story behind these numbers. It was revealed that although the UNESCO status is a strong promotional draw, it has not been sufficient to convince capital-intensive investors to enter the market. Several identified inhibiting factors include: *first*, uncertainty regarding spatial planning regulations, which often involve overlapping interests of conservation and development; *second*, limitations in supporting infrastructure in some potential locations; and *third*, a still-high perceived risk regarding the stability of the post-pandemic tourism market. Large investors tend to adopt a “wait and see” attitude, awaiting further proof of sustainable growth in tourist arrivals.

Although the investment’s contribution to the Gross Regional Domestic Product remains small, its impact at the local economic level—the “economic dividend”—is highly significant and directly felt by the community. As presented in Table 4, the incoming investment, though mostly small-scale, successfully created 780 new jobs in 2023, nearly double the pre-pandemic figure in 2019. This increase was accompanied by the emergence of 70 new community-owned businesses in the same year, demonstrating a strong multiplier effect for every rupiah invested.

Table 4. Trend of Local Economic Contributions in Maros–Pangkep Geopark (2019–2023)

Year	Contribution to PAD (Billion IDR)	Jobs Created (Persons)	New Community Enterprises (Units)
2019	12,5	420	35
2020	9.8 (COVID-19 pandemic)	310	20
2021	13,7	510	42
2022	16,9	630	55
2023	20,4	780	70

Source: Researcher’s Data Processing, 2025.

In interviews, MSME operators qualitatively confirmed these positive impacts. They reported an increase in household income, diversification of livelihoods (no longer solely dependent on agriculture), and the empowerment of women, who are heavily involved in culinary and souvenir enterprises. This economic dividend, while not always formally recorded in macro investment statistics, constitutes the foundation of social sustainability and community acceptance of tourism development. It affirms that the value of an investment lies not only in its nominal amount but also in its ability to be distributed and rooted within the local economy.

Analyzed from the perspective of economic development theory (Wijayanto et al., 2023), the situation in the Maros–Pangkep Geopark reflects a model of

“bottom-up development.” Local entrepreneurial energy is the primary engine of growth, while strategic “top-down” investment still lags. This model has advantages in terms of inclusivity and resilience, but is weak in scalability and the ability to enhance the overall quality of destination amenities. Without investment in high-quality tourism-supporting infrastructure (hotels, MICE, premium attractions), the destination will struggle to compete in the international market.

Furthermore, the current investment pattern risks reinforcing a destination structure oriented toward mass tourism with low spending per tourist. Investment concentrated in food, beverage, and basic services tends to cater to day-trippers. To transform the destination into an overnight location with a longer length of stay and higher spending per tourist, directed investment is necessary. This investment must target the accommodation and diversified attraction subsectors, which are currently weak points.

Therefore, the policy implications of these findings are clear. The local government and the geopark management body face a dual task. *First*, they must continue to nurture and strengthen the existing MSME investment ecosystem. It can be achieved through capacity-building programs, facilitation of access to capital, and simplification of permitting processes ([Arafat et al., 2022](#)). Strengthening this bottom-up foundation is crucial for maintaining social and economic stability.

Second, simultaneously, a proactive strategy is needed to “court” and attract strategic, capital-intensive investment ([Leitold et al., 2020](#)). It can be done by: providing legal certainty and attractive fiscal incentives for investors in priority subsectors (e.g., eco-lodges, MICE); developing Public-Private Partnership schemes for tourism infrastructure development; and conducting focused investment promotion that presents solid financial feasibility data, such as that produced in this study.

Ultimately, the investment dynamics in the Maros–Pangkep Geopark are a reflection of both its potential and its challenges. There is extraordinary local entrepreneurial energy that has proven capable of creating tangible economic dividends. However, to take this destination to the next level and maximize the benefits of its UNESCO status, a bridge is needed—one that can connect this local investment dynamism with larger, strategic capital flows. Creating this bridge is the primary task for stakeholders moving forward.

CONCLUSIONS AND SUGGESTIONS

Based on the results and discussion, it is concluded that the economic sustainability of tourism in the Maros–Pangkep Geopark is sustained by an organic, bottom-up development model. This model has proven to be financially feasible at the micro-level but faces structural challenges due to the suboptimal level of strategic, top-down investment. The paradox between the vitality of the community economy

and the marginality of tourism investment's contribution at the regional level is the central finding of this research. This phenomenon affirms that the UNESCO status has not automatically transformed the area into a magnet for large-scale investment, although it has succeeded in significantly stimulating local entrepreneurship.

In greater detail, this research confirms three primary, interrelated conclusions. *First*, the architecture of tourism enterprises in the region is highly concentrated in low-value-added subsectors, such as food and beverage, reflecting a destination characteristic that caters to day-trippers. This reliance on MSMEs, while inclusive, creates vulnerability and impedes the tourism product diversification needed to increase tourists' length of stay and expenditure. *Second*, although aggregate metrics like IRR and NPV indicate that investment in the region is prospective, there is a broad spectrum of financial feasibility. Community-based enterprises tend to operate with a resilient, subsistence-based logic, whereas capital-intensive businesses like accommodation face serious profitability challenges, which explains the reluctance of large investors to enter the market.

Third, the existing investment pattern shows a positive absolute growth trend post-pandemic, yet its relative contribution to the regional economy remains very low. Despite this, the "economic dividend" from existing investments is profoundly felt at the local level through job creation and the growth of new community-owned businesses. It demonstrates that every investment, however small, has a strong multiplier effect at the grassroots level. The consistency between the research objectives—to analyze structure, feasibility, and investment trends—and these findings indicates that the primary problem lies in the imbalance between micro-economic dynamism and macro-investment strategy.

The implication of these conclusions is urgent and demands a paradigm shift in the management of tourism investment in the geopark. This finding is not merely an academic conclusion but a call to action for all stakeholders. The long-term sustainability of the Maros–Pangkep Geopark cannot rely solely on the limited energy of local entrepreneurship. A policy bridge is required—one that consciously and systematically connects the economic vitality from the bottom up with strategic capital flows from the top down. Without this bridge, the destination risks stagnating and failing to capitalize on the full potential of its world heritage status.

To that end, several actionable policy suggestions and recommendations are formulated. For the local government and the geopark management body, the main priority is to create a more conducive investment climate for strategic capital. It can be realized through three concrete steps. *First*, provide legal certainty by establishing a Detailed Spatial Plan that clearly allocates zones for premium tourism development without sacrificing conservation zones. *Second*, design competitive fiscal incentives, such as local tax reductions or simplified permitting, specifically for investment in priority subsectors that are currently lacking, such as MICE, eco-resorts, and spas.

Third, proactively develop investment proposals based on the solid financial feasibility data from this research to be presented at national and international business forums.

Furthermore, to strengthen the economic foundation from the bottom up, policy interventions must focus on enhancing the capacity of local MSMEs to enable them to scale up. Recommended programs should extend beyond technical training to include: *first*, continuous financial and managerial literacy programs to improve business management professionalism; *second*, facilitation of access to formal financing institutions through the People's Business Credit (KUR) scheme, tailored to the characteristics of seasonal tourism businesses; and *third*, the development of local digital platforms that can help MSMEs market their products more broadly and integrate them into higher value-added tourism supply chains.

Further research is recommended to explore several aspects not covered in this study. A quantitative analysis of the environmental and social carrying capacity at major attraction points is needed to formulate effective visitor management policies. Additionally, a study on the effectiveness of partnership models between private investors and local communities in other destinations could provide valuable lessons for the Maros–Pangkep Geopark in designing more equitable and sustainable investment schemes for the future. Ultimately, the success of a geopark is measured not only by the preservation of its nature but also by its ability to sustainably improve the welfare of its communities.

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