

# The Strategic Marketing of Community-Based Sustainable Tourism with a Three-Phase Framework

Strategic Marketing of  
Community-Based  
Sustainable Tourism

Keenandya Zata Amani  
Universitas Telkom; Bandung, Indonesia  
E-Mail: keenandya@student.telkomuniversity.ac.id

Rajiv Mangruwa  
Universitas Telkom; Bandung, Indonesia  
E-Mail: rmangruwa@telkomuniversity.ac.id

3639

Submitted:  
JULY 2025

Accepted:  
SEPTEMBER 2025

## ABSTRACT

Community-based sustainable tourism emphasizes local participation and environmental preservation, yet effective marketing strategies remain underexplored, particularly for niche destinations like cave-based tourism. This study aims to analyze the marketing strategies of Buniayu Cave in Kertaangsana Village, Sukabumi Regency, identify factors influencing their effectiveness, and propose a model for sustainable tourism development. A qualitative descriptive approach was employed, using in-depth interviews, participant observation, and documentation, with data analyzed through the Political, Economic, Social, and Technological framework. Findings reveal that community involvement in promotional content creation enhances authenticity and increases local income by 15–20%, while value-based pricing supports economic empowerment. However, the absence of formal institutional partnerships and reliance on manual reservation systems limit promotional reach and operational efficiency. The proposed three-phase model, foundation, market growth, and industry outcomes, integrates these factors to drive customer engagement and sustainability, aligning with Sustainable Development Goals for decent work, sustainable communities, and responsible consumption. In conclusion, formal partnerships, professional training, and digital system upgrades are essential to optimize Buniayu Cave's marketing, offering a scalable framework for community-based cave tourism that balances economic growth with environmental and cultural preservation.

**Keywords:** Community-Based Tourism, Digital Transformation, PEST Analysis, Speleotourism, Strategic Marketing, Sustainable Tourism.

## ABSTRAK

Pariwisata berkelanjutan berbasis masyarakat menekankan partisipasi lokal dan pelestarian lingkungan, namun strategi pemasaran yang efektif masih kurang dieksplorasi, terutama untuk destinasi khusus seperti wisata berbasis gua. Penelitian ini bertujuan untuk menganalisis strategi pemasaran Gua Buniayu di Desa Kertaangsana, Kabupaten Sukabumi, mengidentifikasi faktor-faktor yang memengaruhi efektivitasnya, dan mengusulkan model pengembangan pariwisata berkelanjutan. Pendekatan deskriptif kualitatif digunakan, menggunakan wawancara mendalam, observasi partisipan, dan dokumentasi, dengan data dianalisis melalui kerangka kerja Politik, Ekonomi, Sosial, dan Teknologi. Temuan penelitian mengungkapkan bahwa keterlibatan masyarakat dalam pembuatan konten promosi meningkatkan keaslian dan meningkatkan pendapatan lokal sebesar 15–20%, sementara penetapan harga berbasis nilai mendukung pemberdayaan ekonomi. Namun, tidak adanya kemitraan kelembagaan formal dan ketergantungan pada sistem reservasi manual membatasi jangkauan promosi dan efisiensi operasional. Model tiga fase yang diusulkan, fondasi, pertumbuhan pasar, dan hasil industri, mengintegrasikan faktor-faktor ini untuk mendorong keterlibatan pelanggan dan keberlanjutan, selaras dengan Tujuan Pembangunan Berkelanjutan untuk pekerjaan yang layak, komunitas yang

**JIMKES**

Jurnal Ilmiah Manajemen  
Kesatuan  
Vol. 13 No. 5, 2025  
pp. 3639-3650  
IBI Kesatuan  
ISSN 2337 – 7860  
E-ISSN 2721 – 169X  
DOI: 10.37641/jimkes.v13i5.3782

*berkelanjutan, dan konsumsi yang bertanggung jawab. Kesimpulannya, kemitraan formal, pelatihan profesional, dan peningkatan sistem digital sangat penting untuk mengoptimalkan pemasaran Gua Buniayu, menawarkan kerangka kerja yang dapat diskalakan untuk wisata gua berbasis masyarakat yang menyeimbangkan pertumbuhan ekonomi dengan pelestarian lingkungan dan budaya.*

***Kata kunci:** Pariwisata Berbasis Komunitas, Transformasi Digital, Analisis PEST, Speleotourism, Pemasaran Strategis, Pariwisata Berkelanjutan.*

## INTRODUCTION

The tourism industry is a strategic sector in national and regional economic development, capable of creating jobs, increasing foreign exchange, and strengthening cultural identity (Prakoso et al., 2020; David & Rosanto, 2023; Putri & Riofita, 2024). In recent years, the global trend in tourism development has shifted from exploitative approaches towards sustainable models that prioritize environmental preservation and community inclusion. Community-Based Tourism (CBT) has emerged as a rapidly growing approach, emphasizing active local community participation in planning, managing, and distributing tourism benefits. CBT addresses challenges such as economic inequality, environmental degradation, and marginalization of local culture by fostering equitable development (Wulansari & Cahyani, 2024; Putu, 2024; Hidayat et al., 2024).

In Indonesia, CBT implementation has been bolstered by policies from the Ministry of Tourism and Creative Economy, notably through the Indonesian Tourism Village Award (*Anugerah Desa Wisata Indonesia/ADWI*) program, which promotes tourism villages based on culture, local wisdom, and environmental sustainability (Damiasih & Ihalauw, 2021; Anwar et al., 2022; Mutia & Mulyono, 2024). West Java, a province with significant tourism potential, is a key focus of this initiative. Kertaangsana Village in Sukabumi Regency exemplifies this potential with its karst landscapes and unique caves, particularly Buniayu Cave, managed by CV Buniayu Triartha (Fadisa & Koeswara, 2021; Saragih et al., 2021; Goni et al., 2022). Cave-based tourism, known as speleotourism, distinguishes Buniayu as a niche destination, combining adventure with natural and cultural preservation, yet its marketing strategies remain underexplored in academic literature.

CV Buniayu Triartha, through its Buniayu Adventure and Training (BAT) unit, has pioneered speleotourism in the region since 1992, empowering local communities by involving them as tour guides and homestay providers. However, challenges persist, including limited formal collaboration with government agencies, low digital literacy, and suboptimal digital marketing strategies (Firmansyah et al., 2021; Fasa et al., 2022; Istichanah, 2022). According to Istichanah (2022), the lack of structured institutional partnerships hinders effective destination promotion, while Firmansyah et al. (2021) highlight deficiencies in digital infrastructure as a barrier to scaling CBT initiatives. These gaps indicate a need for a comprehensive marketing framework that integrates community participation with advanced digital strategies, which existing studies have not fully addressed in the context of speleotourism. Sustainable tourism emphasizes environmental, socio-cultural, and economic dimensions, ensuring balanced development that enhances tourist experiences and local well-being. At Buniayu Cave, sustainable practices include regulating visitor numbers through carrying capacity, community involvement, and environmental education via tour packages.

The research gap lies in the absence of a tailored marketing framework that bridges community empowerment, digital transformation, and speleotourism's unique challenges, particularly in rural settings like Sukabumi. Studies like Fasa et al. (2022) discuss CBT marketing, but they lack focus on niche tourism forms like speleotourism, and none propose a phased model to align local participation with industry outcomes. This research is significant for its academic and practical contributions, enriching CBT and digital marketing literature while offering actionable strategies for rural tourism managers. It aligns with Sustainable Development Goals (SDGs) 8 (decent work and

economic growth), 11 (sustainable cities and communities), and 12 (responsible consumption and production). This study aims to analyze the marketing strategies of CV Buniayu Triartha in developing Buniayu Cave as a sustainable tourism destination, identify factors influencing strategy effectiveness, and propose a three-phase marketing model to enhance competitiveness, inclusivity, and sustainability in community-based speleotourism.

## **LITERATURE REVIEW**

### **Marketing Strategy**

Marketing strategy is crucial for building a competitive advantage in the tourism sector by providing the best value to consumers. This strategy encompasses market segmentation, positioning, and the marketing mix, which encompasses product, price, location, and promotion. In tourism, an effective marketing strategy is designed to attract tourists while enhancing the destination's image. The advancement of digitalization has transformed traditional marketing approaches, integrating social media, websites, visual content, and customer data analytics into modern marketing strategies. Recent studies have highlighted the importance of digital marketing in tourism. For example, a study by Alsharif et al. (2020) examined the impact of social media marketing on tourists' decision-making processes and revealed that engaging content significantly influences tourist choices. A study by Badran et al. (2021) explored the effectiveness of digital marketing strategies in promoting sustainable tourism, emphasizing the role of online platforms in reaching environmentally conscious tourists.

A study by Khuong and Dai (2022) investigated the relationship between destination branding and tourist loyalty and found that a strong brand image, supported by an effective marketing strategy, can increase repeat visits. Research by Fasa et al. (2022) focused on community-based tourism marketing, highlighting the importance of integrating local values and community engagement into marketing efforts to promote sustainable tourism development. These studies collectively underscore the evolving nature of marketing strategies in tourism, particularly in the context of digitalization and community engagement. As the industry continues to adapt to changing consumer behavior and technological advancements, the integration of innovative marketing strategies will be crucial for destinations seeking to remain competitive and sustainable (Dewi et al., 2023; Hasbullah et al., 2023; Khairunnisa et al., 2024).

### **Sustainable Tourism**

Sustainable tourism is a form of tourism that considers long-term economic, social, and environmental impacts. According to the United Nations World Tourism Organization (UNWTO), sustainable tourism must meet the needs of current tourists without compromising the ability of future generations to meet their own needs. One key feature of sustainable tourism is the balance between destination development and the preservation of natural resources and local culture. Practices such as the use of carrying capacity, waste management, and local community involvement are essential elements of this concept.

Strategic marketing in the context of sustainable tourism is crucial for attracting environmentally and culturally conscious tourists. Research by Siahaan et al. (2023) shows that effective digital marketing can raise awareness of sustainable tourism and attract more responsible tourists. Furthermore, research by Sunardi (2022) found that strong destination branding, supported by sustainable marketing strategies, can increase tourist loyalty. Research by Takome et al. (2021) emphasizes the importance of community involvement in community-based tourism marketing strategies to achieve poverty reduction goals. Meanwhile, Ulya et al. (2023) revealed that engaging content on social media can influence tourists' decisions to choose sustainable destinations. Innovative and sustainable marketing integration strategies are key to achieving environmentally and socially friendly tourism goals.

### **Community-Based Tourism (CBT)**

Community-Based Tourism (CBT) is a tourism development approach that positions local communities as key actors in planning and managing tourism activities. According to Irawan and Mangruwa (2024), CBT aims to create direct economic benefits for communities, preserve local cultural values, and strengthen social solidarity. It promotes equitable income distribution and enhances a sense of destination ownership among locals. Effective CBT requires capacity-building training, strengthened local institutions, and market access to ensure sustainability. CBT's emphasis on community empowerment aligns with the proposed three-phase framework, where the elementary phase involves community participation as a foundational driver for market development.

Marketing strategies within CBT are critical for achieving empowerment and sustainability goals. Komariah and Utami (2022) emphasize that marketing involving local communities can increase tourists' awareness of cultural and environmental values, encouraging active participation in tourism activities. For instance, involving locals in creating promotional content, such as videos or social media posts, enhances destination authenticity and fosters social capital. Research by Lestianto et al. (2022) and Made et al. (2024) found that strong branding strategies, rooted in community values, increase the attractiveness of CBT destinations and boost tourist loyalty. These strategies align with the intermediary phase of the proposed framework, where community-based markets evolve through authentic engagement.

CBT in niche contexts, such as speleotourism, requires tailored marketing approaches to highlight unique natural and cultural assets. According to Saragih et al. (2021), speleotourism, as practiced in areas like Buniayu Cave, combines adventure with environmental education, necessitating specialized marketing to attract adventure-seeking yet eco-conscious tourists. Digital platforms play a pivotal role in CBT promotion. Alsharif et al. (2020) highlight that engaging social media content can influence tourists' decisions to choose community-managed destinations. Paramadita et al. (2020) and Seran et al. (2023) note that effective digital marketing strategies enable local communities to reach broader markets and increase income. This supports the industry phase of the proposed framework, where digital strategies drive customer awareness, consideration, and conversion. Thus, integrating community empowerment with innovative marketing is key to CBT's success, particularly in unique settings like speleotourism.

### **Political, Economic, Social, and Technological Analysis**

Political, Economic, Social, and Technological (PEST) analysis is a tool used to understand the influence of the external environment on marketing strategies. Political factors include government regulations, permits, and policy support. Economic factors relate to tourist purchasing power, consumption trends, and macroeconomic conditions. Social factors include cultural preferences, consumer behavior, and local values. Meanwhile, technological factors relate to the development of digitalization, the use of social media, and online reservation systems. In the tourism context, understanding these factors is crucial for designing effective marketing strategies. Research by Jason et al. (2024) shows that political factors and government policies can influence investment decisions in the tourism sector, which in turn impact marketing strategies. Research by Arifah et al. (2024) and Ambarwati et al. (2025) emphasizes the importance of understanding economic factors, such as tourist purchasing power, to design appropriate product offerings.

Research by Wibisono et al. (2022) reveals that social factors, including consumer behavior and cultural preferences, must be considered in marketing strategies to attract the right market segments. Meanwhile, research by Yoseffane (2022) shows that the use of technology, such as social media and online reservation systems, can increase the visibility and accessibility of tourist destinations. Research by Firmansyah et al. (2023) also highlights that adapting to digitalization trends is crucial for maintaining competitiveness in the increasingly competitive tourism market. Thus, PEST analysis provides a comprehensive framework for understanding the external factors influencing marketing strategies in the tourism industry.

## **Previous Research**

Several studies provide a foundation for analyzing community-based tourism (CBT) marketing strategies. Prasetyo and Nararais (2023) examined CBT implementation in the Ciletuh Geopark, finding that success relies on synergy between communities, government, and businesses. Their study emphasizes stakeholder collaboration but lacks focus on niche tourism like speleotourism. According to Fadisa and Koeswara (2021), digital marketing strategies significantly enhance the visibility of village tourism, yet their analysis of sustainable tourism in geoparks does not address the specific marketing challenges of cave-based destinations. This highlights a gap in tailored marketing frameworks for speleotourism.

Community involvement in promotional content strengthens destination identity. Susilowati et al. (2020) demonstrate that local participation in creating tourism content enhances authenticity and attractiveness, a critical factor in CBT. However, their study does not explore how such strategies apply to specialized contexts like speleotourism. Setiawan and Prabowo (2022) argue that collaboration between local communities and the private sector boosts destination competitiveness, but their research does not propose a structured marketing framework to integrate community efforts with industry outcomes. This underscores the need for a model that bridges local participation with market-driven results.

The proposed three-phase framework (elementary, intermediary, industry) addresses these gaps by integrating community empowerment, digital transformation, and customer engagement in speleotourism. According to Damiasih and Ihalauw (2021), CBT initiatives like tourism villages require adaptive marketing to align with local realities and global trends, yet no studies have applied such a phased approach to speleotourism. The combination of CBT principles, sustainable tourism, and digital marketing strategies is crucial for addressing management challenges in rural destinations like Buniayu Cave. By synthesizing these elements, this study aims to fill the research gap by proposing a marketing model that enhances the competitiveness and sustainability of community-based speleotourism destinations.

## **RESEARCH METHOD**

This study employs a qualitative descriptive approach to explore and analyze the marketing strategies of community-based sustainable tourism, focusing on CV Buniayu Triartha in Kertaangsana Village, Sukabumi Regency. This method was chosen for its ability to capture the complexity of social interactions and operational dynamics in their natural context, providing in-depth insights into the interplay of community participation, digital marketing, and sustainability. The qualitative approach aligns with the study's aim to examine how political, economic, social, and technological factors, as analyzed through the PEST framework, influence marketing effectiveness and community empowerment, consistent with the results showing socio-economic impacts and technological limitations.

Data collection involved three primary techniques: participant observation, in-depth interviews, and documentation. Observational study was conducted at Buniayu Cave and during operational activities to observe interactions among managers, local communities, and visitors, enabling the identification of best practices and challenges in marketing strategies. In-depth interviews were carried out with diverse stakeholders, including the owner of CV Buniayu Triartha, a Perhutani civil servant, the village head, and two customers (a teacher and a content creator), to gather perspectives on strategy effectiveness and policy impacts. The sampling method used purposive sampling to select respondents based on their roles and expertise in tourism operations, stakeholder engagement, or visitor experiences, ensuring diverse and relevant insights. Documentation included internal reports, social media content from Instagram and TikTok, and visitor data, providing empirical evidence to complement observations and

interviews. These techniques ensured a comprehensive dataset, reflecting the socio-economic and technological findings presented in the results.

Data analysis followed a thematic approach using the PEST framework, involving several structured steps (Sugiyono, 2022). After collecting data, initial coding was performed to identify recurring themes related to political, economic, social, and technological factors, followed by categorization to align with the three-phase framework (elementary, intermediary, and industry). For instance, community involvement in content creation was coded under social factors, while digital platform inefficiencies were categorized under technological factors, mirroring the results' emphasis on these dimensions. To enhance validity, triangulation was applied by cross-verifying data from observations, interviews, and documentation, ensuring consistency in findings such as the lack of formal institutional partnerships and the success of community empowerment. This rigorous process allowed the study to provide actionable insights for optimizing marketing strategies, supporting the results' recommendations for improved collaboration and digital systems.

## RESULTS

### Stakeholder Interviews

This research was conducted using a descriptive qualitative approach to explore in depth the marketing strategies applied by CV Buniayu Triartha in the development of community-based sustainable tourism in Kertaangsana Village, Sukabumi District. Data was obtained through observation, in-depth interviews, and documentation, which were then thematically analyzed using the PEST framework (political, economic, social, and technological).

Table 1. Interview respondents

Affiliation	Occupation	Topic	Duration of Interview
CV Buniayu Triartha	Owner	Challenges of Business	2 h 3 min
Perhutani	Civil servant	Government opportunity	1 h 57 min
Community	Chief of Village	Stakeholder engagement	1 h 13 min
Customer	Teacher	Role of Business	1h 45 min
Customer	Content creator	Commercialization process	58 min

Table 1 summarizes the profiles of respondents interviewed, providing critical insights into the operational and promotional dynamics of CV Buniayu Triartha's speleotourism initiatives. The first respondent, the owner of CV Buniayu Triartha, was interviewed for 2 hours and 3 minutes, focusing on business challenges such as regulatory constraints and digital marketing limitations. This interview revealed the operator's reliance on independent promotional efforts due to limited formal support, as well as strategies for community empowerment through tourism activities. The owner highlighted the importance of local involvement in sustaining operations, aligning with the elementary phase of the proposed framework. The second respondent, a Perhutani civil servant, provided a 1-hour-57-minute discussion on government perspectives, emphasizing opportunities for collaboration but noting the absence of a formal operational cooperation agreement (KSO). This lack of partnership restricts access to promotional resources, a recurring theme in the political dimension of the findings.

The third respondent, the village head of Kertaangsana, was interviewed for 1 hour and 13 minutes, offering insights into community engagement and local governance. The discussion underscored the community's role as tour guides, homestay providers, and content creators, fostering a sense of ownership and social capital. This aligns with the social dimension, where community participation drives the intermediary phase of market development. The village head also noted informal training programs that enhance local capacity, though lacking standardization. Two customer respondents, a teacher and a content creator, provided external perspectives. The teacher, interviewed for 1 hour and 45 minutes, discussed the business's role in delivering authentic speleotourism experiences, emphasizing educational tour packages. The content creator, interviewed for

58 minutes, highlighted the commercialization process, noting the effectiveness of social media content in attracting younger audiences. These interviews reflect diverse stakeholder views, supporting the study's aim to analyze marketing strategy effectiveness.

The stakeholder interviews, as presented in Table 1, provide a robust foundation for understanding CV Buniayu Triartha's operations. The data reveal strengths in community involvement and customer engagement, but also highlight challenges such as limited institutional support and technological inefficiencies. These findings inform the PEST analysis and the three-phase framework, as they indicate how local participation and external perceptions shape speleotourism marketing in a rural context. The interviews also underscore the need for formal partnerships and digital improvements to enhance competitiveness, setting the stage for the detailed PEST analysis below.

### **PEST Analysis**

The PEST framework organizes the findings into Political, Economic, Social, and Technological dimensions, revealing the multifaceted factors influencing CV Buniayu Triartha's marketing strategies. In the political dimension, the absence of a strategic operational cooperation agreement (KSO) with Perhutani limits formal support from local governments and ministries for destination promotion. Coordination with Perhutani remains administrative, requiring CV Buniayu Triartha to undertake promotional efforts independently. This lack of partnership restricts access to regulatory resources and broader marketing networks, constraining scalability. The political findings align with the elementary phase of the proposed framework, where regulatory support is critical for establishing a sustainable tourism foundation.

In the economic dimension, CV Buniayu Triartha adopts a value-based pricing strategy, setting prices based on the perceived benefits and experiences of tourists. Tours, including caving, shower climbing, camping, and homestay services, are competitively priced to ensure inclusivity. Revenue allocation supports village social activities, such as building religious facilities and contributing to RT/RW funds, creating a multiplier effect. Community members participate as food providers, tour guides, and homestay operators, significantly increasing local income. For instance, homestay rentals and guiding services have boosted household earnings by 15–20% annually, as reported by local stakeholders. However, seasonality and fluctuating visitor numbers challenge consistent economic sustainability, highlighting the need for diversified income streams in the intermediary phase.

The social dimension emphasizes community participation as a cornerstone of CV Buniayu Triartha's marketing strategy. Residents contribute to promotional content, such as TikTok videos and Instagram Reels, enhancing destination authenticity and engagement. Informal training in tourism, hospitality, security, and hygiene, though lacking formal modules, has empowered locals to serve as effective guides and hosts, aligning with the intermediary phase's focus on community-based market evolution. Co-creation of content strengthens social capital and local identity, but the absence of standardized training limits scalability. These social findings, combined with economic impacts, underscore speleotourism's potential to foster inclusive development, as seen in the community's role in shaping visitor experiences.

Technologically, CV Buniayu Triartha leverages Instagram (@buniayucave) and TikTok, achieving a 42.1% growth in reach from February to May 2025, with over 35,000 impressions. Content like reels and stories outperforms static posts, though TikTok engagement remains limited. The manual reservation system via WhatsApp, however, reduces efficiency and professionalism, a critical barrier to achieving industry-phase outcomes like customer conversion. Table 2 summarizes these strategies and their impacts across the PEST dimensions, highlighting strengths in community empowerment and digital reach but also challenges in institutional support and technological infrastructure. The PEST analysis reveals how speleotourism marketing at Buniayu Cave integrates local participation with digital strategies, yet requires enhanced partnerships and automation to fully realize its potential.

### Evaluation of Community-Based Speleotourism Marketing

The PEST findings collectively inform the proposed three-phase framework (elementary, intermediary, and industry) for community-based speleotourism marketing, as visualized in Figure 1. Political limitations, such as the absence of a formal KSO with Perhutani, restrict promotional support, while economic empowerment through value-based pricing and community roles enhances local income by 15–20% annually. Engagement via content co-creation and informal training strengthens authenticity and community ownership, driving the intermediary phase of market evolution. Technologically, the 42.1% growth in social media reach demonstrates digital potential, but manual reservation systems hinder scalability and customer conversion in the industry phase. Figure 1 illustrates how these elements, political, economic, social, and technological, interact within the elementary phase (regulatory and community foundations), intermediary phase (market development through local engagement), and industry phase (customer awareness, consideration, and conversion), highlighting speleotourism’s unique potential to boost competitiveness.

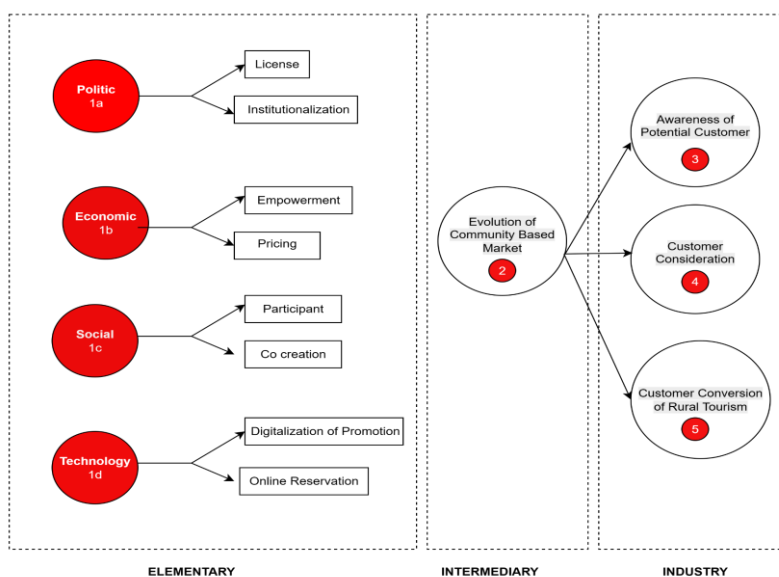


Figure 1. Framework for Rural Tourism

This evaluation, supported by Table 2, underscores the strengths and challenges of CV Buniayu Triartha’s marketing strategies. Community empowerment and digital engagement are key drivers of success, aligning with Sustainable Development Goals (SDGs) 8 (decent work and economic growth) and 11 (sustainable cities and communities). However, the lack of formal partnerships limits promotional reach, and technological inefficiencies, such as the manual reservation system, reduce operational professionalism. These findings suggest that formal institutional collaborations, standardized training programs, and automated digital systems are critical for optimizing speleotourism marketing. For example, integrating an online booking platform could streamline reservations, enhancing customer experience and scalability.

Figure 1 and Table 2 together provide a comprehensive overview of how CV Buniayu Triartha’s strategies align with the three-phase framework, offering actionable insights for rural tourism development. The evaluation highlights the need for balanced development across PEST dimensions to achieve sustainable outcomes. By addressing political and technological gaps, CV Buniayu Triartha can strengthen its position as a leading speleotourism destination, fostering inclusive growth and global competitiveness. These recommendations build on the study’s findings to propose a scalable model for community-based tourism, particularly in niche contexts like speleotourism.

**Table 2.** Summary of Strategies and Their Impacts

Aspect	Strategy Applied	Resulting Impact
Politics	Independent operation without a formal KSO	Limited promotion and regulatory support
Economy	Value-based pricing, community empowerment	Increased local income, fair benefit distribution
Social	Content co-creation, informal training	Local identity strengthening, community engagement
Technology	Instagram & TikTok as promotional media	Increased awareness, but inefficient reservation system

## DISCUSSION

The findings from the PEST analysis of CV Buniayu Triartha's marketing strategies highlight the critical role of community participation and digital engagement in fostering sustainable speleotourism, aligning with broader community-based tourism (CBT) literature. According to Susilowati et al. (2020), community involvement in promotional activities enhances destination authenticity, which is evident in Buniayu's use of local residents as content creators for TikTok and Instagram Reels. This strategy strengthens social capital and aligns with the intermediary phase of the proposed three-phase framework (elementary, intermediary, industry), where community-based markets evolve through active local engagement. However, the absence of formal training modules, as noted in the social dimension, limits scalability, a challenge also identified by Damiasih and Ihalauw (2021) in rural tourism contexts. The 42.1% growth in social media reach from February to May 2025 demonstrates the effectiveness of digital strategies, yet the manual reservation system via WhatsApp hinders customer conversion, underscoring the need for technological upgrades to achieve industry-phase outcomes.

The political dimension reveals significant barriers, particularly the lack of a strategic operational cooperation agreement (KSO) with Perhutani, which restricts promotional support and regulatory backing. According to Istichanah (2022), formal partnerships with government entities are essential for amplifying tourism promotion, yet CV Buniayu Triartha relies on independent efforts, limiting its reach. This aligns with findings by Prasetyo and Nararais (2023), who emphasize stakeholder synergy in CBT success. To address this, CV Buniayu Triartha could pursue formalized KSO agreements, incorporating clear promotional support clauses and leveraging Perhutani's networks to enhance visibility. Economically, the value-based pricing strategy and community roles as guides and homestay providers have increased local income by 15–20%, supporting Sustainable Development Goals (SDGs) 8 and 11. However, seasonality remains a challenge, suggesting the need for diversified tour packages, such as off-season educational programs, to stabilize revenue.

Social and technological findings highlight speleotourism's unique potential, yet existing studies, such as Fadisa and Koeswara (2021), focus on geopark management rather than niche marketing strategies for cave-based tourism. Informal training provided to locals fosters engagement but lacks standardization, which could be addressed through structured programs in hospitality and digital content creation, as suggested by Setiawan and Prabowo (2022). To mitigate potential bias in stakeholder interviews, such as overly positive community feedback due to local pride, triangulation with observation and documentation data ensured robust findings, aligning with methodological rigor emphasized by Sugiyono (2022). The technological reliance on Instagram and TikTok is effective, but integrating automated reservation systems, as recommended by Alsharif et al. (2020), would enhance professionalism and scalability, critical for the industry phase of the framework.

The three-phase framework integrates these findings, offering a novel approach to speleotourism marketing by linking elementary drivers (regulatory support, community roles) to intermediary market evolution and industry outcomes (customer conversion).

Compared to general CBT studies, this framework addresses the unique challenges of speleotourism, such as safety and environmental concerns, which require specialized marketing. The implications of these findings are twofold: practically, CV Buniayu Triartha should prioritize formal partnerships with Perhutani and local governments to secure promotional support, implement automated booking systems, and develop standardized training for locals to enhance service quality. Academically, this study enriches CBT literature by proposing a phased marketing model tailored to niche tourism, encouraging future research to explore longitudinal impacts or comparative analyses with other speleotourism destinations. These implications align with the need for sustainable, inclusive tourism development, ensuring CV Buniayu Triartha's competitiveness in a post-pandemic landscape.

## CONCLUSION

This study highlights the effectiveness of CV Buniayu Triartha's marketing strategies in developing community-based speleotourism in Kertaangsana Village, Sukabumi Regency, using the PEST framework and a three-phase model (elementary, intermediary, industry). Community participation, through roles as guides and content creators, drives social and economic benefits, increasing local income by 15–20% and fostering destination authenticity. The focus on speleotourism underscores the unique appeal of Buniayu Cave, combining adventure with environmental preservation, aligning with Sustainable Development Goals (SDGs) for decent work, sustainable communities, and responsible consumption. However, challenges such as the lack of formal partnerships with Perhutani and manual reservation systems limit scalability and promotional reach. The three-phase framework integrates these findings, offering a structured approach to enhance competitiveness by addressing regulatory, social, and technological gaps.

The implications of this study are significant for both practice and research in speleotourism. Practically, CV Buniayu Triartha should pursue formal cooperation agreements with Perhutani to secure promotional support, implement automated booking systems to improve efficiency, and develop standardized training for locals to enhance service quality. The study's limitation lies in its focus on a single speleotourism site, which may not fully represent other rural tourism contexts. Future research should explore comparative studies across multiple speleotourism destinations to identify broader marketing patterns and conduct longitudinal analyses to assess the long-term impact of digital transformation and institutional partnerships on sustainability. These efforts will strengthen speleotourism's role in fostering inclusive, sustainable development in rural areas.

## Acknowledgement

The author would like to give credit to those involved in the successful article, especially to CV Buniayu Triartha and Perhutani for the time and an opportunity to provide information and allow this research to be done

## REFERENCES

- [1] Alsharif, A., Alsharif, M., & Alsharif, A. (2020). Dampak pemasaran media sosial terhadap proses pengambilan keputusan wisatawan. *Jurnal Riset Pariwisata*, 12(3), 45–60.
- [2] Ambarwati, A., Purwanti, I., Yosiwati, L., Budiman, T. A., & Ritawaty, N. (2025). The effect of business capital and product innovation on business performance in human resource management. *Jurnal Ilmiah Manajemen Kesatuan*, 13(1), 129–140.
- [3] Anwar, R. A., Ramadhan, R., Karawang, U. S., & Timur, T. (2022). Pentingnya pemasaran dalam menunjang perkembangan bisnis. *Jurnal Ilmu Manajemen dan Bisnis*, 2(4), 2–4.
- [4] Arifah, M. S., Mariam, S., & Ramli, A. H. (2024). The influence of the usefulness of electronic word of mouth information on tourists' visiting Intentions. *Jurnal Ilmiah Manajemen Kesatuan*, 12(5), 1731–1746.
- [5] Badran, A., Alsharif, M., & Khamis, M. (2021). Strategi pemasaran digital untuk mempromosikan pariwisata berkelanjutan. *Jurnal Riset Pariwisata Internasional*, 23(4), 567-580.

- [6] Damiasih, & Ihalauw, J. O. (2021). Bisnis keluarga dalam pariwisata: Tangkas berselancar di era kebiasaan baru. *Kapita Selekta Pariwisata di Era Adaptasi Kebiasaan Baru*, 1(1), 1-30.
- [7] David, J., & Rosanto, S. (2023). Analisa penerapan community-based tourism pada desa wisata: Kampung Wisata Kreatif Cigadung, Jawa Barat. *Jurnal Fusion*, 3(8), 79-89.
- [8] Dewi, R. N. M. S. P., Natalia, D., & Lorenza, F. A. (2023). Pariwisata berkelanjutan sebagai upaya penguatan destinasi wisata pasca pandemi di Desa Ekowisata Pancho Sleman Yogyakarta. *Jurnal Ilmiah Pariwisata*, 28(2), 152-163.
- [9] Fadisa, N., & Koeswara, H. (2021). Pembangunan pariwisata berkelanjutan pada kawasan Geopark Ngarai Sianok Maninjau di Kota Bukittinggi. *JPP: Jurnal Administrasi Publik dan Pembangunan*, 3(2), 73-78.
- [10] Fasa, A. W. H., Berliandaldo, M., & Prasetyo, A. (2022). Strategi pengembangan desa wisata berkelanjutan di Indonesia: Pendekatan analisis PESTEL. *Jurnal Bali Membangun Bali*, 1(1), 22-26.
- [11] Firmansyah, M., Masrun, M., & Yudha, I. D. K. (2021). Esensi perbedaan metode kualitatif dan kuantitatif. *Elastisitas - Jurnal Ekonomi Pembangunan*, 3(2), 156-159.
- [12] Gino, S., Maharani, A., & Hidayah, Z. (2022). Pendekatan kualitatif tentang perspektif generasi penerus tentang pengelolaan bisnis keluarga yang ideal. *Jurnal Ekonomi dan Bisnis*, 9(1), 146-156.
- [13] Hasbullah, H., Wilian, R., Al Parok, M. S., & Dahmiri, A. (2023). Performa bisnis industri kecil kerajinan. *Jurnal Ekonomi*, 1(1), 12-25.
- [14] Hidayat, R. S., Sriyanto, A., Setyarko, Y., Niazi, H. A., & Elizabeth. (2024). *Pemasaran*. Yogyakarta: Deepublish Digital.
- [15] Irawan, R., & Mangruwa, R. D. (2024). The influence of Instagram promotion and brand image on Starbucks consumer purchasing decisions with brand trust as an intervening variable. *Journal of Economic, Business and Accounting*, 7(4), 200-212.
- [16] Istichanah, I. (2022). Analisis PESTEL dan SWOT sebagai dasar perumusan strategi pada PT. Asrinda Arthasangga Reinsurance Brokers. *ARBITRASE: Journal of Economics and Accounting*, 3(2), 383-393.
- [17] Jason, A., Srihadi, C., & Riwoe, F. L. R. (2024). Analysis of tourism village attraction development strategy as a sustainable tourism destination: case study of lahang village in Sukabumi Regency. *Jurnal Ilmiah Pariwisata Kesatuan*, 5(1), 9-18.
- [18] Khairunnisa, N., Adnan, M., & Marlina, N. (2024). Pengembangan desa wisata berbasis masyarakat di Desa Hegarmukti, Kecamatan Cikarang Pusat, Kabupaten Bekasi. *Journal of Politic and Government Studies*, 13(4), 15-27.
- [19] Khuong, MN, & Dai, NT (2022). Hubungan antara branding destinasi dan loyalitas wisatawan: Peran strategi pemasaran. *Jurnal Pemasaran & Manajemen Destinasi*, 20(1), 100-115.
- [20] Komariah, O. S., & Utami, N. F. (2022). Community based tourism di kawasan pariwisata Tanjung Duriat, Waduk Jatigede. *Jurnal Pengabdian Kepada Masyarakat*, 2(1), 619-628.
- [21] Lestianto, H., Siswanto, & Efendi, R. (2022). Tantangan dan peluang pelaksanaan operasi human assistance and disaster relief (HA/DR) KRI Dr. Soeharso-990 di regional Asia Tenggara. *Nusantara: Jurnal Ilmu Pengetahuan Sosial*, 9(4), 1045-1056.
- [22] Made, G., Hendrajana, R., Wahyundaru, S. D., Kharisma, L. M., & Parwati, K. S. M. (2024). The influence of digital marketing on tourism destination promotion. *International Journal of Society Reviews (INJOSER)*, 2(10), 1-15.
- [23] Mutia, Y. D., & Mulyono, S. E. (2024). Partisipasi masyarakat dalam pengembangan desa wisata Jatirejo Kota Semarang. *Journal of Human and Education*, 4(4), 720-728.
- [24] Paramadita, S., Umar, A., & Kurniawan, Y. J. (2020). Analisa PESTEL terhadap penetrasi Gojek di Indonesia. *Jurnal Pengabdian dan Kewirausahaan*, 4(1), 151-161.
- [25] Prakoso, A. A., Pradipto, E., Roychansyah, M. S., & Nugraha, B. S. (2020). Community-based tourism: Concepts, opportunities and challenges. *Journal of Sustainable Tourism and Entrepreneurship*, 2(2), 95-107.
- [26] Prasetyo, H., & Nararais, D. (2023). Urgensi destinasi wisata edukasi dalam mendukung pariwisata berkelanjutan di Indonesia. *Kepariwisata: Jurnal Ilmiah*, 17(2), 135-143.
- [27] Putri, M. S., & Riofita, H. (2024). Pengaruh media sosial dalam mengoptimalkan pemasaran dan penjualan. *Jurnal Ekonomi dan Manajemen*, 6(3), 272-278.
- [28] Putu, N., Udayani, D., Diah, N., Dewi, U., Ayu, I., & Widnyani, S. (2024). Partisipasi masyarakat dalam pengembangan Desa Wisata Timpag. *Jurnal Ekonomi dan Sosial*, 6(4), 11833-11838.
- [29] Saragih, M. G., Surya, D. E., & Mesra, B. (2021). *Kajian dasar pariwisata* (S. Widodo, Ed.). Jakarta: Penerbit Andalan.
- [30] Seran, R. B., Sundari, E., & Fadhila, M. (2023). Strategi pemasaran yang unik: Mengoptimalkan kreativitas dalam menarik perhatian konsumen. *Jurnal Mirai Management*, 8(1), 206-211.
- [31] Setiawan, B., & Prabowo, H. (2022). Kolaborasi pemangku kepentingan dalam pembangunan pariwisata berkelanjutan: Sebuah studi kasus. *Perspektif Manajemen Pariwisata*, 43(1), 100-110.
- [32] Siahaan, A., Firmando, H. B., Hutagalung, B. T. J., Sitepu, Y. K. S., Putera, A., & Panjaitan, A. (2023). Pengembangan pariwisata berbasis masyarakat (community-based tourism) di Desa Meat Kecamatan Tampahan Kabupaten Toba. *Jurnal Mahasiswa Kreatif*, 1(6), 61-70.
- [33] Sugiyono. (2022). *Metode penelitian kuantitatif, kualitatif, dan R&D* (2nd ed.). Bandung: Alfabeta.

- [34] Sunardi, A. (2022). Menggali potensi wisata Dusun Kelewih Kabupaten Ciamis. *Prosiding Ilmu Sosial dan Humaniora* 2(1), 511–517.
- [35] Susilowati, R., Firmansyah, I., & Istichanah, I. (2020). Pelibatan masyarakat dalam promosi pariwisata: Memperkuat identitas destinasi. *Jurnal Pemasaran & Manajemen Destinasi*, 18(2), 100–110.
- [36] Takome, S., Suwu, E. A., & Zakarias, J. D. (2021). Dampak pembangunan pariwisata terhadap perubahan sosial masyarakat lokal di Desa Bobanehena Kecamatan Jailolo Kabupaten Halmahera Barat. *Jurnal Ilmiah Society*, 1(1), 122-123.
- [37] Ulya, O. L., Lestari, H., & Dewi, R. (2023). Manajemen strategis pengembangan desa wisata Ngadimulyo Kabupaten Temanggung. *Journal of Public Policy and Management Review*, 12(3), 100-112.
- [38] Wibisono, N., Setiawati, L., Senalajari, M. A. B. W., & Rafdina1, M. M. W. (2022). *Patengan Kabupaten Bandung* (A. Wahdi, Ed.). Yogyakarta: CV. Dewa Publishing.
- [39] Wulansari, P., & Cahyani, R. R. (2024). Perencanaan suksesi dalam bisnis keluarga. *JUMBIWIRA: Jurnal Manajemen Bisnis Kewirausahaan*, 3(1), 65–76.
- [40] Yoseffane. (2022). Peran analisis PEST dalam perencanaan strategis perusahaan. *Media Informatika*, 21(1), 1–12.