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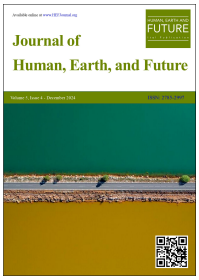

Leveraging Uniqueness and Local Wisdom for Sustainable Tourism Village Development Through Technology Utilization

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Abstract

This study investigates how the unique characteristics and local wisdom of tourism villages contribute to economic development through the integration of technology. The objective is to explore the synergistic effects of these variables on sustainable tourism village growth. Using a quantitative approach, data was collected from tourism village stakeholders through structured questionnaires and analyzed using Structural Equation Modeling (SEM). The findings reveal that the uniqueness of tourism villages, coupled with local wisdom, significantly enhances economic development. Additionally, technology utilization plays a critical mediating role, amplifying this positive impact. The novelty of this research lies in integrating traditional practices with modern technological approaches to boost economic sustainability in rural tourism. Practical implications include strategies for policymakers to leverage cultural heritage alongside technological advancements to maximize tourism's economic benefits.

Keywords: Tourism Villages; Local Wisdom; Technology Integration; Economic Development; Cultural Heritage.

1. Introduction

In recent years, tourism villages have garnered significant attention as vital components of sustainable tourism development, especially in areas rich in cultural heritage and local wisdom. These villages serve not only as a means to preserve unique traditions but also as catalysts for economic growth. Previous research highlights the potential of tourism villages in driving rural development by leveraging their distinctive cultural, historical, and natural features to attract tourists from around the world. Studies by Nguyen et al. (2022) [1] and Zeng et al. (2022) [2] emphasize the importance of these unique attributes in creating authentic and immersive experiences that distinguish tourism villages from conventional tourist destinations.

Despite the promising benefits, a critical gap remains in understanding the combined influence of local wisdom and technological integration on the economic impact of tourism villages. While several studies have explored the role of cultural heritage and community participation in tourism, they often fall short in addressing how modern technologies can be harmoniously integrated into traditional village settings [2]. There is a pressing need for research that delves into the balance between technological advancements and the preservation of cultural identity. For example, Shen et

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al. (2019) explored the benefits of digital platforms in promoting rural tourism but did not adequately consider potential adverse effects on local traditions [3].

The integration of technology, if not carefully managed, risks overshadowing the unique cultural elements that define these tourism villages. The existing literature primarily focuses on the economic advantages of digital tools, such as increased tourist reach and revenue generation. However, it lacks comprehensive frameworks that address the long-term sustainability of these initiatives. Studies by Nguyen et al. (2022) [1] and Hassan et al. (2024) [4] have evaluated the economic outcomes of tourism in rural areas, yet they often overlook how these developments affect the cultural and social fabric of the communities involved. A more holistic approach is needed to assess both immediate economic gains and the long-term sustainability of tourism practices.

Moreover, challenges related to maintaining cultural authenticity amid modernization efforts have been highlighted by previous studies [5, 6]. While these studies acknowledge the tension between development and preservation, they do not provide specific strategies for mitigating the risks associated with cultural erosion due to technological advancements. As tourism villages increasingly adopt smart technologies, it becomes essential to explore how innovations like IoT devices, social media, and digital platforms can be leveraged to enhance the tourism experience while safeguarding the core values and traditions that attract visitors in the first place.

This study seeks to bridge these research gaps by examining how the synergy of uniqueness, local wisdom, and technology can drive sustainable economic growth in tourism villages. By adopting a mixed-method approach, this research aims to explore how technology can enhance tourism operations without compromising cultural authenticity. The findings will provide insights into practical strategies for policymakers and community leaders, emphasizing the need for a balanced approach that fosters economic development while preserving cultural integrity.

By addressing the gaps identified in previous research, this study aims to contribute to the broader discourse on sustainable tourism development. The goal is to develop a framework that integrates modern technology with traditional practices, ensuring that tourism villages can thrive economically while maintaining their cultural heritage. The outcomes of this research will offer valuable recommendations for stakeholders in the tourism industry, helping to shape policies that support both economic growth and cultural preservation.

2. Literature Review

Tourism villages have increasingly become focal points in sustainable tourism development, driven by their ability to harness cultural heritage and local wisdom while incorporating modern technologies to enhance visitor experiences. The concept of tourism villages as integrated ecosystems that combine local traditions with economic activities has been explored by scholars such as Arismayanti et al. (2019) [7] and Setiawati et al. (2023) [8], who emphasize the importance of preserving cultural identity while fostering economic growth.

Recent studies in 2024 have expanded the understanding of how local wisdom contributes to sustainable tourism by acting as a foundation for both social cohesion and environmental stewardship. Kusumastuti et al. (2024) [9] highlight that local communities, by leveraging their traditional knowledge systems, can create unique tourism products that attract niche markets [9]. This aligns with findings by Ardani et al. (2024) [10], who demonstrate that tourism villages emphasizing sustainability rooted in local customs experience higher levels of tourist engagement and satisfaction. These studies collectively suggest that local wisdom can serve as a competitive advantage, enhancing the distinctiveness of tourism villages in the global market.

However, as tourism villages integrate information technology into their operations, it is crucial to ensure that this integration does not undermine their cultural essence. Recent research by Sarja et al. (2024) [11] underscores that digital platforms, such as social media and e-commerce, are essential for reaching a broader audience and improving the visibility of tourism villages. Kusumastuti et al. (2024) [9] further argue that smart technologies, like Internet of Things (IoT) devices, can optimize resource management in tourism villages, making them more sustainable and efficient. Yet, the challenge remains in adopting these technologies in a manner that complements rather than replaces traditional practices.

The research model proposed in this study examines the synergy between local wisdom, technology, and uniqueness as a means of driving economic development in tourism villages. A critical component of this model is understanding how these variables interact to create a sustainable tourism ecosystem. Studies by Suryadi et al. (2023) [12] and Barney et al. (2001) [13] indicate that tourism villages that effectively integrate technological innovations with their unique cultural offerings are more likely to achieve long-term economic sustainability. This integration, however, requires a delicate balance to avoid the commercialization that might dilute the authenticity of the tourism experience.

The theoretical foundation underpinning this research draws on the Resource-Based View (RBV), which posits that unique resources, such as cultural heritage and traditional knowledge, can provide a competitive advantage [13]. In the context of tourism villages, local wisdom serves as an intangible asset that differentiates these destinations from mass-market tourism. According to recent studies, tourism villages that leverage their unique resources while adopting appropriate technologies tend to have higher visitor retention rates and greater economic impacts [8, 14].

Moreover, the adoption of smart tourism frameworks is increasingly being studied in the context of rural tourism development. Kusumastuti et al. (2024) [9] propose that integrating technologies, such as mobile apps for virtual tours and digital payment systems, enhances tourist satisfaction by providing a seamless visitor experience. However, they also caution that over-reliance on technology can erode the authenticity that attracts tourists to these villages in the first place. This insight supports the Technology Acceptance Model (TAM), which suggests that perceived usefulness and ease of use are critical factors in technology adoption [15]. In tourism villages, these factors must align with preserving cultural integrity to ensure that the technology enhances rather than detracts from the visitor experience.

The concept of destination uniqueness is also integral to the proposed research model, as it influences tourists' perceptions and willingness to visit. Setiawati et al. (2023) argue that uniqueness derived from cultural practices, traditional crafts, and local festivals serves as a pull factor that differentiates tourism villages from urban tourism hotspots [8]. This aligns with findings by Fernández-Morales et al. (2024), who demonstrate that destinations offering distinctive experiences are more resilient to market fluctuations and external shocks, such as economic downturns or global pandemics [16].

Recent literature in 2024 further highlights the importance of community involvement in leveraging these unique assets to drive tourism development. Barney et al. (2001) [13] emphasize that empowering local communities to participate in tourism activities not only enhances economic outcomes but also ensures that tourism development aligns with local values and priorities. This participatory approach is essential for achieving sustainable tourism, as it fosters a sense of ownership and accountability among community members, leading to more sustainable tourism practices.

In synthesizing these insights, the proposed research model suggests that the integration of uniqueness, local wisdom, and technology creates a synergistic effect that maximizes the economic impact of tourism villages. This holistic approach is less explored in existing literature, presenting a research gap that this study aims to address. By adopting a mixed-method approach, this research will explore how these elements interact to support sustainable tourism development while preserving cultural authenticity.

This study contributes to the discourse on sustainable tourism by providing a framework that integrates modern technology with traditional practices. The findings will offer practical recommendations for policymakers and tourism stakeholders on how to leverage local wisdom and technology in a balanced manner, ensuring that tourism villages can achieve economic growth without compromising their cultural integrity. By addressing the identified research gaps, this study aims to provide actionable insights for developing tourism villages into sustainable and economically viable destinations.

2.1. Research Framework

The research framework proposed in this study examines the relationships between the following variables. First, the uniqueness of tourist villages is measured by cultural heritage, traditional practices, and natural attractions. Second, local wisdom is measured by sustainable practices, community engagement, and preservation of traditions. Third, technology utilization is measured by digital marketing, online booking systems, and smart infrastructure. Finally, economic development is measured by tourist arrivals, income generation, and employment levels. The model hypothesizes that the uniqueness of tourism villages and local wisdom positively influence economic development, and that technology utilization mediates this relationship. Figure 1 shows the research framework through which the objectives of this study were achieved.

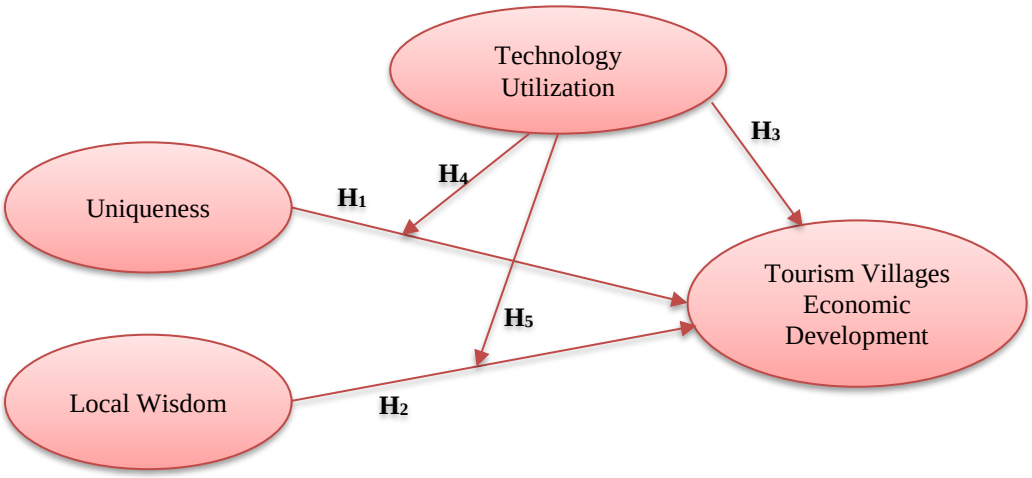

Figure 1. Research Framework

Based on the proposed research framework, the following hypotheses are:

H_1: Local wisdom positively influences technology utilization.

H_2: Local wisdom positively influences tourism village economic development.

H_3: Technology utilization positively influences tourism village economic development.

H_4: The uniqueness positively influences technology utilization.

H_5: The uniqueness positively influences tourism village economy.

H_6: Local wisdom positively influences technology utilization as a mediating effect -1 to tourism village economic development.

H_7: The Uniqueness positively influences technology utilization as a mediating effect-2 to tourism village economic development.

H_8: Technology utilization and local wisdom positively influence tourism village economic development (moderating effect-1).

H_9: Technology utilization and the uniqueness positively influence tourism village economic development (moderating effect-2).

3. Research Methodology

This research focuses on the second category from the four classifications of tourism villages with an argument that this level still needs to improve in using technology as a part of the element of tourism village development. Whereas the first category does not yet use the technology. A quantitative research methodology will be employed to test the proposed research model. The variables of this research are local wisdom and uniqueness as independent variables, tourism village economic development as a dependent variable, and technology utilization as a moderating variable.

The following steps outline the research process. The population for this study is 67 tourism villages in the second category in West Java Province. A stratified random sampling method will be used to select a representative sample of villages based on a group of village leaders, tourism operators, and residents. Primary data will be collected through structured questionnaires distributed to the group. Secondary data will be obtained from tourism boards and government reports.

The questionnaire will include validated scales to measure the variables of interest. A Likert scale (1-5) will be used to gauge responses. The collected data will be analyzed using Structural Equation Modelling (SEM) to test the hypothesized relationships. Descriptive statistics, reliability analysis, and validity checks will be performed to ensure the robustness of the findings. The hypotheses will be tested to determine the direct and mediated effects of the variables on economic development.

To assess data quality, path analysis is performed using Smart-PLS software, incorporating reliability and validity tests. Partial Least Square (PLS), a structural equation analysis method, allows for simultaneous evaluation of both measurement and structural models. The measurement model is assessed through validity and reliability tests, while the structural model is examined through a causality test at the final stage. Validity is tested using loading factors and the average variance extracted (AVE), whereas reliability is assessed with Cronbach's alpha and composite reliability. Additionally, the causality test involves the use of the determination coefficient."

The sequence of analytical methods in this research is as follows: (a) Research focus with category: second-tier Tourism Village and aim: enhance technology integration, (b) Quantitative methodology: SEM for analysis, (c) Sampling and Data Collection: Stratified sampling, questionnaires, and reports, (d) Data analysis and validation: Smart-PLS for SEM, reliability, and validity checks, e. hypothesis testing: Path Analysis and causality test.

4. Results and Discussion

The study investigates the integration of digital technologies to enhance the economic development of tourism villages in West Java while preserving their unique cultural heritage. A key focus is on leveraging digital marketing tools such as social media platforms—Instagram, Facebook, and TikTok—which have proven effective in promoting local attractions and reaching a wider audience. These platforms allow tourism operators to showcase the distinct cultural assets of their villages, thereby attracting tourists seeking authentic experiences. Additionally, online booking systems like Traveloka and Tiket.com have been utilized to simplify the reservation process for accommodations and tourism-related services, making it easier for tourists to plan their visits. By streamlining these processes, the villages can enhance their accessibility and appeal to tech-savvy travelers who prioritize convenience.

Understanding tourists' technology preferences was achieved through surveys targeting both tourists and tourism operators. These surveys gathered data on factors such as ease of use, trust in digital tools, and perceived benefits of online engagement. The study revealed that tourists value digital tools that enhance their experience without detracting from the cultural authenticity of the village. Thus, the integration of technology in these settings is not merely about modernization but about enhancing visitors' experiences while maintaining the essence of the local culture.

The findings from this research offer insights into the generalizability of its results to other regions in Indonesia and potentially to other countries with similar tourism village models. However, regional differences, such as disparities in digital infrastructure, community readiness, and levels of digital literacy, can impact how effectively these technologies can be adopted. For example, while West Java benefits from relatively strong internet connectivity and proactive community engagement, more remote areas may face challenges that require tailored solutions. The interaction between local wisdom and technology also varies across regions, indicating that the preservation of cultural identity must be aligned with the introduction of digital tools to achieve sustainable economic outcomes.

Economic development in tourism villages was measured through several quantitative indicators, including income generation, job creation, and tourist expenditure. By focusing on metrics such as increased revenue from local businesses, employment opportunities for residents, and average spending per tourist, the study provided a clear picture of how technology adoption can contribute to economic growth. The data was analyzed using Structural Equation Modeling (SEM) to examine the relationships between local wisdom, uniqueness, technology utilization, and economic performance. The results demonstrated that villages that effectively integrated digital tools into their operations saw significant improvements in their economic indicators, suggesting that technology can serve as a powerful catalyst for growth.

Community participation was a crucial element in the successful adoption of technology. The study measured participation through community engagement in digital marketing initiatives and the uptake of technology training sessions for tourism operators. However, several barriers were identified, including a lack of digital literacy, especially among older residents, and financial constraints related to acquiring digital tools and stable internet connections. Cultural resistance also emerged as a challenge, with some community members expressing concerns that technology could dilute traditional practices and erode the authenticity of the tourism experience. To address these barriers, the study recommended investing in capacity-building programs that educate residents on the benefits of digital tools while ensuring that technological advancements do not compromise the village's cultural integrity. Collaborative efforts between local governments, technology providers, and community leaders were seen as essential to creating sustainable tourism models that align with both economic goals and cultural preservation.

Overall, the study emphasizes the importance of a balanced approach that combines the advantages of modern technology with the rich traditions of tourism villages. By carefully integrating digital tools while respecting local wisdom, tourism villages in West Java have the potential to thrive economically while preserving their cultural heritage, setting a model for other regions to follow.

In general, Indonesia has made significant strides in promoting rural tourism, with the establishment of 6,022 tourist villages nationwide. Of these, the majority—4,684 villages or about 77.78%—are still in the pioneering phase, while 991 villages (16.46%) are categorized as developing. A smaller portion, 316 villages (5.28%), have reached an advanced level, and only 31 villages (0.51%) have attained independent status, reflecting their strong tourism management capabilities (https://jadesta.kemenparekraf.go.id/sebaran, accessed on November 2024).

In West Java Province alone, there are 466 tourist villages, with the majority—380 villages or 81.55%—in the pioneering stage. The region also includes 67 developing villages (14.38%), 10 advanced villages (2.15%), and just one independent village (0.21%), spread across 24 regencies and municipalities (https://jabar.jadesta.com, accessed on November 2024). West Java's contribution to the national total is notable, accounting for 7.74% of all tourist villages and 6.76% of the developing tourist villages in Indonesia, underscoring its strategic role in the country’s rural tourism development.

The reliability of the data is crucial to ensure robust and meaningful analysis. To confirm its quality, tests for validity and reliability were conducted, demonstrating that the data meets the necessary standards for further investigation. This is further illustrated by the Output of Outer Loading in the Path Analysis measurement model, as depicted in Figure 2.

Figure 2 provides a comprehensive visual representation of the measurement model, highlighting the strength of the relationships between variables and confirming the robustness of the data. Through this illustration, the alignment and consistency of the measured indicators become more apparent, reinforcing the overall validity of the analysis.

The results presented in the tables provide significant insights into the relationships between the study variables and underscore the strength of their interactions. The numbers in each table are not just statistical outputs; they carry substantial implications that enhance the understanding and value of this research.

In the validity and reliability tests (Table 1), high values of Cronbach's Alpha and Composite Reliability across all variables indicate that the constructs used in this study are robust and consistent. For instance, the Cronbach's Alpha for "Local Wisdom" is 0.848, while "Tourism Village Economic Development" has a Cronbach's Alpha of 0.912. These values, being above the threshold of 0.7, confirm that the measurement scales are reliable and suitable for this research. The high Composite Reliability values, such as 0.935 for "Tourism Village Economic Development," indicate a high level of internal consistency among the items within each construct. This reliability enhances the credibility of the study, ensuring that the results derived from the data are both accurate and dependable.

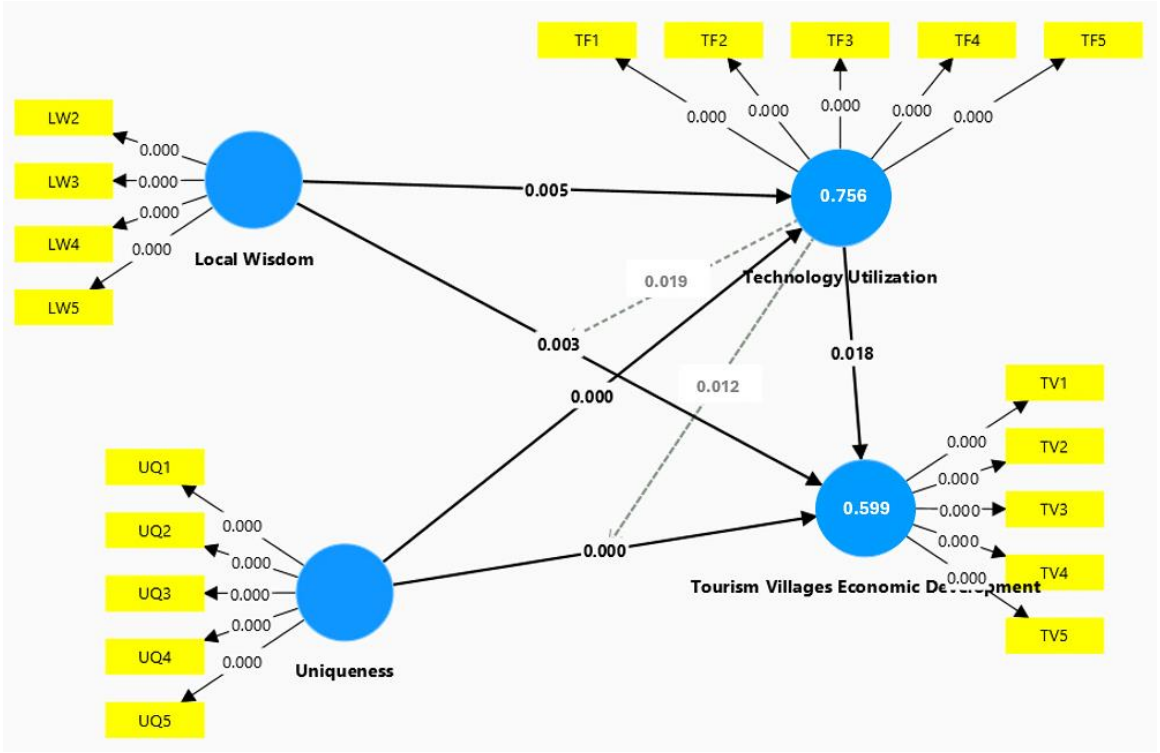

Figure 2. The Output of Outer Loading in Path Analysis

Table 1. Result of Validity and Reliability Testing

Variable	Cronbach's alpha	Rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
Local Wisdom	0.848	0.851	0.898	0.688
Technology Utilization	0.861	0.879	0.900	0.643
Tourism Village Economic Development	0.912	0.915	0.935	0.742
Uniqueness	0.892	0.899	0.920	0.699

Table 2 presents the results of hypothesis testing using structural equation modeling. For instance, the coefficient (β) for the effect of Local Wisdom on Technology Utilization is 0.220 with a T-statistic of 2.834 and a P-value of 0.005, indicating that this relationship is statistically significant. A T-statistic greater than 1.96 and a P-value less than 0.05 suggest a strong level of confidence in the positive impact of local wisdom on technology utilization. This result underscores the importance of leveraging local cultural practices to enhance technology adoption in tourism villages, which can be a critical factor in their sustainable economic development.

Table 2. Results of Hypothesis Testing

	Original sample (O)	T statistics (|O/STDEV|)	P values
H1: Local Wisdom → Technology Utilization	0.220	2.834	0.005
H2: Local Wisdom → Tourism Village economic Development	0.246	2.990	0.003
H3: Technology Utilization → Tourism Village Economic Development	0.270	2.359	0.018
H4: Uniqueness → Technology Utilization	0.623	7.446	0.000
H5: Uniqueness → Tourism Village economy	0.492	4.962	0.000
H6: Local Wisdom → Technology Utilization → Tourism Village Economic Development (*mediating effect-1*)	0.059	2.039	0.042
H7: Uniqueness → Technology Utilization → Tourism Village Economic Development (*mediating effect-2*)	0.168	2.113	0.035
H8: Technology Utilization × Local Wisdom → Tourism Village Economic Development (*moderating effect-1*)	0.009	2.114	0.019
H9: Technology Utilization × Uniqueness → Tourism Village Economic Development (*moderating effect-2*)	0.027	2.370	0.012

Hypothesis 1 (H1) explores the impact of Local Wisdom on Technology Utilization. The findings, as presented in Table 2, indicate a Beta coefficient of 0.220, a T-statistic value of 2.834 (exceeding the threshold of 1.96), and a P-value of 0.005 (below the 0.05 significance level). These results confirm that Local Wisdom exerts a positive and significant influence on Technology Utilization.

Hypothesis 2 (H2) examines the influence of Local Wisdom on the Economic Development of Tourism Villages. The analysis, shown in Table 2, reveals a Beta coefficient of 0.246, with a T-statistic value of 2.990 (greater than 1.96) and a P-value of 0.003 (less than 0.05). This evidence demonstrates that Local Wisdom significantly contributes to enhancing the economic development of tourism villages.

Hypothesis 3 (H3) focuses on the relationship between Technology Utilization and the Economic Development of Tourism Villages. According to Table 2, the Beta coefficient is 0.270, with a T-statistic of 2.359 (above the threshold of 1.96) and a P-value of 0.018 (below 0.05). This suggests that the utilization of technology positively and significantly boosts economic growth in tourism villages.

Hypothesis 4 (H4) assesses the impact of Uniqueness on Technology Utilization. The results, depicted in Table 2, show a Beta coefficient of 0.623, a T-statistic of 7.446 (well above 1.96), and a P-value of 0.000 (indicating strong significance). This implies that Uniqueness has a substantial and positive effect on Technology Utilization.

Hypothesis 5 (H5) investigates the role of Uniqueness in driving Economic Development in Tourism Villages. The analysis, as presented in Table 2, yields a Beta coefficient of 0.492, with a T-statistic of 4.962 (exceeding 1.96) and a P-value of 0.000. This confirms that Uniqueness significantly enhances economic development in tourism villages.

Hypothesis 6 (H6) explores whether Technology Utilization mediates the relationship between Local Wisdom and the Economic Development of Tourism Villages. The results, shown in Table 2, indicate a Beta coefficient of 0.059, a T-statistic of 2.039 (greater than 1.96), and a P-value of 0.042. This suggests that Technology Utilization plays a significant mediating role, strengthening the positive impact of Local Wisdom on economic development.

Hypothesis 7 (H7) examines the mediating role of Technology Utilization in the relationship between Uniqueness and the Economic Development of Tourism Villages. According to Table 2, the Beta coefficient is 0.168, with a T-statistic of 2.113 (above the threshold of 1.96) and a P-value of 0.035. These results confirm that Technology Utilization effectively mediates the positive influence of Uniqueness on economic growth in tourism villages.

Hypothesis 8 (H8) addresses the moderating effect of Technology Utilization on the influence of Local Wisdom on Economic Development in Tourism Villages. Table 2 reveals a Beta coefficient of 0.009, with a T-statistic of 2.114 (exceeding 1.96) and a P-value of 0.019. This suggests that Technology Utilization significantly moderates the impact of Local Wisdom, thereby enhancing its effect on the economic development of tourism villages.

Hypothesis 9 (H9) investigates the moderating role of Technology Utilization in the relationship between Uniqueness and Economic Development in Tourism Villages. The findings, displayed in Table 2, show a Beta coefficient of 0.027, a T-statistic of 2.370 (greater than 1.96), and a P-value of 0.012. These results indicate that Technology Utilization significantly moderates the positive impact of Uniqueness on the economic development of tourism villages.

In summary, the analysis demonstrates that both Local Wisdom and Uniqueness significantly influence Technology Utilization and Economic Development in Tourism Villages. Additionally, Technology Utilization serves as an effective mediator and moderator in enhancing these relationships, thereby contributing to the sustainable economic growth of tourism villages.

Similarly, the positive and significant relationship between Local Wisdom and Tourism Village Economic Development ($\beta = 0.246$, T-statistic = 2.990, P-value = 0.003) demonstrates that integrating traditional knowledge into tourism strategies can directly boost economic growth. The relatively higher coefficient here (compared to the impact on technology utilization) highlights that local wisdom has a direct and more substantial influence on economic outcomes.

The analysis also reveals that Technology Utilization significantly influences Tourism Village Economic Development ($\beta = 0.270$, T-statistic = 2.359, P-value = 0.018). This indicates that adopting digital tools not only facilitates marketing and operational efficiency but also translates into tangible economic benefits for tourism villages.

The study finds that investing in technology infrastructure is a key enabler for improving the economic performance of tourism destinations, particularly in rural areas where digital engagement can significantly broaden market reach.

Uniqueness is shown to have a very strong influence on both Technology Utilization ($\beta = 0.623$, T-statistic = 7.446, P-value < 0.001) and Tourism Village Economic Development ($\beta = 0.492$, T-statistic = 4.962, P-value < 0.001). The extremely high T-statistic for Uniqueness indicates that its impact is not only significant but also critical for enhancing tourism outcomes. The high coefficient values demonstrate that emphasizing the unique characteristics of tourism villages—such as their cultural heritage, traditional crafts, and natural beauty—can attract tourists and encourage investment in technological advancements, which in turn boosts economic performance.

Furthermore, the study highlights the mediating and moderating roles of Technology Utilization. For example, the mediating effect of Technology Utilization between Local Wisdom and Tourism Village Economic Development ($\beta = 0.059$, T-statistic = 2.039, P-value = 0.042) indicates that digital tools serve as a bridge, enhancing the economic impact of local cultural practices. Similarly, the moderating effect of Technology Utilization on the relationship between Uniqueness and Economic Development ($\beta = 0.027$, T-statistic = 2.370, P-value = 0.012) suggests that the presence of technology strengthens the positive impact of a village's unique attributes on its economic success.

These numbers provide empirical support for the study's conclusions and encourage actionable recommendations. For instance, policymakers and tourism managers can focus on integrating local cultural elements with technology to foster economic growth. The significant values for Uniqueness and Local Wisdom indicate that tourism strategies should prioritize preserving cultural heritage while also investing in digital infrastructure to maximize economic benefits. The study's findings highlight that a balanced approach, combining tradition with innovation, can lead to sustainable tourism development, especially in the context of rural tourism villages in Indonesia.

In conclusion, the numerical results in the study provide a strong foundation for practical implications. By demonstrating the critical role of technology, local wisdom, and uniqueness in driving economic development, the study not only adds to the academic literature but also offers valuable insights for stakeholders aiming to develop sustainable tourism models. The evidence presented supports the notion that tourism villages that leverage their unique cultural assets and adopt digital tools can achieve long-term economic resilience and growth

The findings of this research highlight that the unique characteristics and local wisdom of a tourism village significantly contribute to its economic development and play a crucial role in sustaining economic performance over time. Additionally, the study reveals that the feasibility and adoption of technology serve as strong enablers, further driving the economic growth of these villages. Notably, the use of technology not only enhances the impact of uniqueness and local wisdom but also acts as both a mediator and a moderator, strengthening their positive and significant influence on economic development. This underscores the importance of integrating traditional elements with modern technological advancements to achieve sustainable growth in tourism villages.

5. Discussion

The literature review and the research findings in this study are closely aligned in identifying key variables such as uniqueness, local wisdom, and technology utilization as fundamental drivers for economic development in tourism villages. Recent studies also support these variables, reinforcing the theoretical framework established. For example, Purnamawati et al. (2022) [17] emphasize the significant role of cultural uniqueness and digital technology in enhancing the competitiveness of tourism villages in Indonesia. Similarly, Hidayat et al. (2023) [18] highlight the impact of leveraging local traditions to attract niche tourism markets, which in turn drives sustainable economic growth.

Both the current study and prior literature suggest that tourism villages can achieve economic growth by emphasizing their distinctive cultural attributes. For instance, Vitasurya (2016) [19] found that tourism villages that integrate local wisdom into their promotional strategies tend to attract more visitors, leading to increased economic benefits. This aligns with the findings of this study, which indicate that tourism villages leveraging their unique cultural identity have a competitive edge in the market.

However, while prior studies like those by Gursoy et al. (2020) [20] and Sigala (2020) [21] focus more on the macro-level impact of technological adoption during the COVID-19 pandemic, the current research delves deeper into the micro-level analysis by assessing specific tourism villages. For example, unlike Arismayanti et al. (2019), who emphasized broad technological solutions for the tourism sector, this study identifies localized challenges such as community readiness and digital literacy as critical factors influencing the successful adoption of technology [7].

The implications of this study extend beyond confirming the theoretical models of past research. While prior studies generally advocate for technology adoption as a one-size-fits-all solution, this research highlights the importance of a tailored approach, particularly in regions where digital infrastructure is still developing [22]. The findings suggest that tourism villages should not only invest in technology but also in community training programs to ensure effective utilization of digital tools.

Additionally, the study provides new insights into how local wisdom can be strategically integrated with modern marketing techniques. As supported by Nugraha et al. (2024), a blend of tradition and innovation enhances the resilience of tourism villages against economic downturns, which is especially crucial in the post-pandemic recovery phase [23].

Finally, this study both validates and expands upon existing research by offering a localized perspective on the drivers of economic performance in tourism villages. The alignment with past literature affirms the importance of cultural uniqueness, local wisdom, and technology adoption. However, the study also identifies key differences, particularly in the contextual challenges faced by specific villages, which necessitate a more nuanced approach to tourism development strategies.

6. Conclusion

Tourism villages, rich in cultural heritage and steeped in local wisdom, present remarkable potential for sustainable economic development. By blending the best of tradition with cutting-edge technology, these villages can become vibrant, resilient destinations that offer immersive experiences for visitors while uplifting local communities. In West Java Province, the charm of these villages goes beyond their scenic beauty and cultural treasures; it lies in their capacity to embrace innovation while preserving their unique identity. Moving forward, it is crucial to recognize, nurture, and elevate these hidden gems, ensuring that they continue to flourish and make a meaningful impact on both the local and global tourism landscape.

To achieve this vision, several key strategies should be pursued by policymakers and community leaders. First, efforts to safeguard and celebrate the distinctive cultural heritage of tourism villages should be prioritized. Hosting cultural festivals, organizing traditional craft workshops, and promoting heritage tours can keep these traditions alive while attracting more visitors. Additionally, leveraging digital tools is essential: launching targeted digital marketing campaigns, creating seamless online booking platforms, and investing in smart infrastructure can significantly boost the visibility and efficiency of these tourism hubs.

Equally important is fostering community engagement by integrating local wisdom and sustainable practices into tourism activities, which can in still a deep sense of ownership and pride among residents. Providing training programs and resources on technology usage and sustainable tourism management will empower both residents and operators to thrive in this evolving landscape. Finally, building strong partnerships between the government, private sector, and local communities is key to ensuring tourism villages grow sustainably, benefiting all stakeholders while preserving the unique charm that sets them apart.

7. Declarations

7.1. Author Contributions

Conceptualisation, M.B.L.; methodology, F.A.S. and S.S.; formal analysis, M.B.L. and B.I.; writing—original draft preparation, F.A.S. and D.P.; writing—review and editing, S.S., F.A.S., and M.B.L.; supervision, M.B.L. All authors have read and agreed to the published version of the manuscript.

7.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

7.3. Funding

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7.5. Ethical Approval

First, we will conduct ourselves with integrity and honesty in our research. Second, we will openly take responsibility for all of our research activities. Finally, the FGD members agreed that the study followed the scientific procedure.

7.6. Informed Consent Statement

Not applicable.

7.7. Declaration of Competing Interest

The authors declare that there are no conflicts of interest concerning the publication of this manuscript. Furthermore, all ethical considerations, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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