



BICITOURISM AS A CATALYST FOR DEVELOPMENT IN BOYACÁ - COLOMBIA

WILLIAM ORLANDO ALVAREZ ARAQUE¹, FABIO ALEXANDER RIVERA GARCÍA², CARLOS ARTURO FONSECA PINTO³

^{1,2,3} Universidad Pedagógica y Tecnológica de Colombia - Seccional Duitama

Acceptance date : November 12, 2022 ; Publication date: December 20, 2022

Abstract

In Boyacá, Colombia, the scarcity of business development has stalled economic and social progress. This study investigates how bicitourism can be a source of development in this region. It seeks to understand its impact in generating employment, stimulating local economic growth and improving the quality of life of the population. The methodology used is qualitative, through surveys and focus groups, to analyze the perception of the community, tourists and local authorities on bicitourism in Boyacá. The results highlight the potential of bicitourism to generate income, promote environmental conservation and safeguard cultural heritage. Despite this, challenges such as the lack of adequate infrastructure and the need for promotion and training are identified. In conclusion, the importance of taking advantage of bicitourism as an integral strategy to boost economic and social development in Boyacá is emphasized, proposing actions such as investment in infrastructure and the promotion of responsible tourism to maximize its benefits in the region.

Keywords: Bicitourism, Boyacá, Economic development

INTRODUCTION

In the region of Boyacá, Colombia, a notable absence of entrepreneurial development has been identified as a significant challenge to economic and social advancement. This lack of entrepreneurial initiatives has resulted in underutilized opportunities and stagnant economic growth in the area. In this context, an emerging phenomenon has emerged: bicitourism, known as the practice of tourism by bicycle. Given the aforementioned problems, this study aims to investigate the potential of bicitourism as an engine of development for Boyacá.

In order to investigate how bicycle tourism can become a catalyst for development in Boyacá, Colombia, this research paper aims to specifically explore how the integration of bicycle tourism initiatives can contribute to the sustainable growth of local economies, the preservation of cultural heritage and the improvement of community well-being in this region.

In previous studies, authors such as Buning and Lamont (2020) have highlighted the benefits of sustainable tourism practices in driving community development and the preservation of natural resources. Similarly, research by Gazzola et al. (2018) has highlighted the potential of bicycle tourism to promote environmental conservation, support small businesses and provide travelers with authentic cultural experiences. However, despite these contributions, there has been a lack of specific academic attention on the impacts and challenges of bicitourism in the context of Boyacá, Colombia.

Therefore, this research is important in addressing a gap identified in the academic literature by focusing on the unique dynamics of bicitourism in Boyacá and its ability to drive holistic development in the region. By exploring the intersections of tourism, the economy and the environment, it seeks to better understand how bicitourism can contribute significantly to economic growth, environmental conservation and cultural enrichment in Boyacá.

Impact of Bicitourism on Economic Development

Bicitourism, understood as the practice of bicycle tourism, has gained relevance as an alternative and sustainable form of tourism that can contribute significantly to the economic development of the regions where it is implemented. According to (Fishman et al., 2015; Lee, 2015; Chilembwe, 2017; Ciascai et al., 2022), bicitourism has been recognized as a low environmental impact activity that can generate significant income for local communities. This activity aligns with the principles of



sustainable tourism, promoting environmental conservation and the active participation of communities in tourism development.

Previous research has highlighted the various economic benefits associated with bicitourism. For example, according to (Blondiau et al., 2016; Xia and Wu, 2017; Catela and Milheiro, 2019; Yeh et al., 2019), bicycle tourism can diversify the local economy by providing employment opportunities in related sectors such as bicycle rental, tour guide services and local product sales. In addition, studies such as (Han et al., 2020; and Guo et al., 2021) have pointed out that spending by cycle tourists on accommodation, food and recreational activities contributes significantly to the local economy, stimulating the development of small and medium-sized enterprises.

Bicycle tourism can also have a positive impact on the infrastructure and development of the regions that adopt it. According to Rui (2009), the implementation of cycle tourism routes and trails may require investments in road infrastructure and tourism services, which in turn can benefit other forms of tourism and local transport. This infrastructure development can improve the accessibility and connectivity of regions, increasing their attractiveness to visitors and encouraging a greater flow of tourists.

In addition to its economic benefits, bicycle tourism can play an important role in promoting community development and cultural heritage conservation. Research such as that conducted by Kormosne-Koch (2013) has highlighted how bicycle tourism can foster cultural exchange between visitors and local communities, promoting the appreciation and preservation of local traditions and customs. This interaction between cycle tourists and residents can strengthen social ties and contribute to the development of a shared cultural identity in the region.

Despite the potential benefits of bicycle tourism, there are important challenges and considerations that need to be addressed to maximize its positive impact on economic development. For example, research by Crotti et al. (2022) highlights the importance of properly managing the growth of bicycle tourism to avoid negative impacts on the environment and the quality of life of local communities. It is also essential to address barriers to access to bicycling tourism, such as lack of adequate infrastructure and road safety, to ensure that this activity is inclusive and accessible to all.

Overall, bicycle tourism offers a number of opportunities to boost the economic development of regions by diversifying the local economy, improving infrastructure, and promoting community development and cultural heritage conservation. However, the challenges and considerations associated with bicycle tourism development need to be carefully addressed to ensure that it is sustainable and beneficial to all parties involved.

Cycling tourism in Boyacá

Boyacá, a region located in Colombia, has gained worldwide recognition as a land of outstanding cyclists, including Nairo Quintana. This mountainous region has a diverse landscape and scenic roads that make it an ideal destination for cycling and, therefore, for bicitourism. According to Rodríguez and Granados (2017), Boyacá's geography offers a unique combination of mountains, valleys and lakes that attract cyclists from all over the world in search of unique challenges and experiences. This natural suitability for cycling has contributed to the growth of bicitourism in the region.

Bicycle tourism in Boyacá not only benefits from its geography, but also from the region's ingrained cycling culture. According to Cardozo (2014), the passion for cycling is deeply rooted in the cultural identity of Boyacá, where bicycles are used not only as a means of transport, but also as a symbol of pride and tradition. This emotional connection to the bicycle has fostered an active and engaged cycling community in Boyacá, which has contributed to the development and promotion of bicycle tourism in the region.

Bicycle tourism in Boyacá is also boosted by cycling-friendly infrastructure and policies. Research by Estupiñan (2018) has indicated that most of Boyacá's territory has a well-maintained and signposted road network, as well as routes specifically designed for cyclists, which facilitates the safe and enjoyable practice of bicycle tourism. In addition, government policies promoting cycling as a sustainable means of transport and cycling tourism have contributed to the growth of cycling in the region.



Bicitourism in Boyacá not only has an economic impact, but also a social and environmental one. According to Cruz (2021), bicitourism generates income for the local economy through the cyclists' spending on accommodation, food and tourist services. It also encourages environmental conservation by promoting sustainable and nature-friendly tourism. Socially, bicycle tourism strengthens community ties and promotes social inclusion by providing employment and development opportunities for local communities.

Overall, bicitourism in Boyacá benefits from its geography, ingrained cycling culture, favourable infrastructure and government policies, making it a thriving and promising activity for the economic, social and environmental development of the region.

Materiales y Métodos

The study follows the principles of qualitative methodology, with the aim of exploring and understanding the influence of bicitourism on the socio-economic development of Boyacá, Colombia. To this end, a qualitative methodology was chosen to explore the subjective perspective of the participants and to interpret the meanings and experiences related to bicitourism. This approach, supported by Kozleski (2017), focuses on understanding social phenomena from the perspective of the actors involved, enabling a detailed analysis of the motivations, beliefs and perceptions that influence their actions.

In terms of the scope of the study, descriptive research guidelines were followed to thoroughly examine the aspects identified at each stage of the research process. According to Holmes et al. (2023), descriptive research focuses on describing characteristics and phenomena as they occur in their natural context, which is appropriate for an in-depth analysis of how bicitourism can foster community development.

Finally, the research design was based on the action research method, which integrates research processes with actions aimed at solving problems and improving the situation under study. According to Acharya and Mohanty (2019), this approach is valuable in addressing complex social problems, as it allows for the active participation of researchers and communities in identifying and solving the challenges posed. In this way, the study not only identified the factors influencing the development of bicitourism, but also proposed specific actions to encourage this activity and promote regional progress.

Unit of study - Participants

The study sample consisted of 60 individuals, mainly composed of community members, tourists and local authorities with experience in bicitourism.

For the selection of participants, a non-probabilistic convenience sampling method was used, taking into account specific criteria, such as the practice of bicitourism and knowledge of its development in the department of Boyacá, Colombia.

The selected participants came from various municipalities in the department of Boyacá, including Paipa, Duitama, Tunja, Sogamoso and Villa de Leyva, all of which are renowned for their relevance in the practice of bicitourism.

Phases of the research process

The research process was organized in three phases, with the aim of comprehensively addressing the challenges associated with bicitourism in the department of Boyacá, Colombia.

- First Stage: Characterization of Bicitourism in Boyacá

The first stage of the research process focuses on the characterization of bicitourism in Boyacá, with a particular focus on the economic and development potential that this activity can offer to the region. To achieve this objective, a survey was administered to the 60 subjects selected from the sample. This survey was designed to collect relevant data on the perceptions, experiences and expectations of the participants in relation to bicitourism. In addition, it sought to identify the main opportunities and challenges facing this activity in the context of Boyacá. The results obtained allowed us to outline a detailed profile of bicitourism in the region, highlighting its current contributions and its potential to foster local socio-economic development.

- Second Stage: Identifying the difficulties in the development of bicitourism



The second stage of the research process focused on identifying the difficulties in the development of bicitourism in Boyacá. To carry out this phase, a focus group was organized with 10 of the 60 participants selected in the study unit. This focus group allowed for an in-depth exploration of the obstacles and barriers affecting the implementation and growth of bicitourism in the region. During the sessions, participants discussed various issues, such as infrastructure, tourism promotion, local policies and human resources training. The discussions provided valuable insights into the perceptions and experiences of key stakeholders, allowing for a detailed understanding of the specific challenges that need to be addressed to foster the development of bicitourism in Boyacá.

- Third Stage: formulation of an action plan to promote bicitourism and ensure socio-economic progress in Boyacá

The third and final stage of the research focused on formulating an action plan to promote bicitourism and ensure socio-economic progress in the department of Boyacá. Based on the findings of the previous two stages, a comprehensive strategy was designed that includes specific recommendations to overcome the challenges identified and maximize the potential of bicitourism in the region. This action plan covers several key areas, such as the development of adequate infrastructure, the promotion and marketing of bicitourism, the implementation of favourable public policies, and the training and education of local human resources. In addition, initiatives were proposed to strengthen collaboration between the different actors involved, including local authorities, tourism businesses and communities. The objective of this stage was to establish a clear and effective roadmap to turn bicitourism into an engine of sustainable development for Boyacá, thus promoting the socio-economic wellbeing of its inhabitants.

RESULTS

The results derived from the fulfilment of the research objectives focus on the analysis of the impact of bicitourism on the socio-economic development of the department of Boyacá, Colombia. Through a qualitative and descriptive methodology, a nuanced understanding of the potentialities and challenges associated with the promotion of bicitourism in Boyacá is provided. Therefore, the following lines contextualize the emerging findings, providing key elements for the formulation of strategies and policies aimed at strengthening bicitourism as a source of sustainable progress.

- Results first stage: Characterization of Bicitourism in Boyacá

In the first stage of the research, the survey applied to the 60 sample subjects allowed for a wide range of opinions and perspectives on bicitourism in Boyacá. The qualitative nature of the study facilitated the collection of detailed information through open-ended questions, providing a broad understanding of participants' experiences and perceptions.

Informants pointed out that bicitourism is perceived as an emerging activity with a high potential to stimulate local economic development. Many participants highlighted that the region has favourable geographical and climatic characteristics for cycling, which could attract a significant number of national and international tourists. Furthermore, informants underlined Boyacá's reputation as the birthplace of renowned cyclists, such as Nairo Quintana, which adds an additional symbolic value and attractiveness to the region.

Informants also agreed that bicitourism can not only generate direct economic income through tourism, but also has the potential to revitalize other areas of the local economy. They mentioned, for example, the possibility of increasing the demand for accommodation services, gastronomy, and local commerce, thus contributing to job creation and the improvement of regional infrastructure.

However, informants also identified several challenges that could hinder the effective development of bicitourism in Boyacá. Among the most frequently cited problems were the lack of adequate infrastructure, such as bicycle paths and signage, and the need for more promotion and marketing to position Boyacá as a bicitourism destination. In addition, the importance of having public policies and institutional support to facilitate the development of this activity was mentioned.

In terms of sustainability, participants felt that bicitourism could play a crucial role in conserving the environment and promoting responsible tourism practices. Several informants highlighted that



bicitourism can be a sustainable alternative to conventional tourism by reducing the carbon footprint and fostering respect for nature and the cultural heritage of the region.

Finally, informants emphasized the need for capacity building and training for the local community so that they can take full advantage of the opportunities that bicitourism offers. It was suggested that education and training programs in areas such as tour guiding, customer service, and bicycle maintenance be implemented to ensure that the community is prepared to receive and serve tourists efficiently.

In itself, the results of this stage indicate that, although bicitourism in Boyacá faces certain challenges, it also presents numerous opportunities to boost the socio-economic development of the region. The identification of these factors is crucial for the formulation of effective strategies to maximize the benefits of bicitourism and mitigate its potential obstacles.

- Results Second Stage: Identifying difficulties in the development of bicitourism

In the second stage of the research, a focus group was carried out with 10 of the 60 selected participants, with the purpose of identifying the difficulties that hinder the development of bicitourism in Boyacá. The results of this focus group revealed a series of critical obstacles that need to be addressed in order to effectively promote this activity in the region.

Focus group participants agreed that one of the main challenges is inadequate infrastructure for bicycle tourism. The shortage of safe and well-maintained cycle paths in some municipalities was mentioned, as most of them are in good condition, as well as the lack of adequate signage on cycle routes. This deficiency not only limits the comfort and safety of cyclists, but also discourages both tourists and local residents from engaging in bicycle tourism.

In addition, informants highlighted the insufficient tourism promotion of bicitourism in Boyacá. Despite the region's natural and cultural resources, the lack of effective marketing campaigns and presence in media and digital platforms means that Boyacá is not widely recognized as an attractive destination for bicitourism. Participants suggested the need for more aggressive and coordinated promotion strategies to increase the visibility and attractiveness of bicitourism in Boyacá.

Another crucial point discussed was the lack of local policy support and coordination. Participants expressed that there are not enough government initiatives and public policies that actively promote the development of bicitourism. The need for greater collaboration between local authorities and tourism stakeholders to design and implement policies that facilitate the growth of this activity was identified. This includes the creation of incentives for investments in infrastructure and services related to bicitourism.

Human resources training and capacity building also emerged as a significant barrier. Informants noted that there is a lack of specific training programs for tour guides, service operators and other professionals in the bicitourism sector. The lack of adequate skills in the community limits Boyacá's ability to offer high quality experiences to cycle tourists, negatively affecting visitor satisfaction and thus the development of bicitourism.

Focus group participants also mentioned the need to improve collaboration and networking among the different actors involved in bicitourism. The lack of communication and cooperation between tour operators, local authorities and communities affects the ability to develop integrated and effective initiatives. The creation of collaboration platforms and networks to facilitate the exchange of information and coordination of efforts among all stakeholders was suggested.

In general terms, the results of this stage highlight that, although bicitourism has a high potential to contribute to Boyacá's socioeconomic development, there are several difficulties that need to be overcome. Inadequate infrastructure, lack of tourism promotion, lack of supportive policies, shortage of specialized training and poor collaboration among stakeholders are key obstacles that need to be addressed. These findings provide a solid basis for the formulation of concrete strategies and actions to overcome these barriers and enhance bicitourism in the region.

- Results Stage Three: Formulation of an action plan to promote bicitourism and ensure socioeconomic progress in Boyacá



Based on the findings of the previous two stages, this plan addresses the main barriers identified and proposes concrete strategies to maximize the potential of bicitourism in the region. The following is a detailed action plan structured in several key areas.

1. Development of Adequate Infrastructure

- **Creation and maintenance of bicycle lanes**

The construction and maintenance of safe and well-marked bicycle paths are essential. The creation of a network of bicycle routes connecting the main municipalities of Boyacá, such as Paipa, Duitama, Tunja, Sogamoso, and Villa de Leyva, is recommended. This network should include both long-distance routes for experienced cyclists and shorter, more accessible routes for beginners and families.

- **Installation of Signage and Equipment**

Adequate signage is essential to orient cyclists and ensure their safety. Clear signs indicating directions, distances, and points of interest should be installed. In addition, it is important to establish service stations along the routes, equipped with rest, bicycle repair, and first aid areas.

2. Promotion and Marketing of Bicitourism

- **Digital and Traditional Marketing Campaigns**

Marketing campaigns should be developed to promote Boyacá as an ideal destination for bicitourism. This includes the creation of attractive content on social networks, blogs and specialized tourism websites. The campaigns should highlight the natural, cultural and historical attractions of the region, as well as local cycling events and competitions.

- **Participation in International Fairs and Events**

To increase Boyacá's visibility as a bicitourism destination, it is essential to participate in international tourism and cycling fairs and events. These platforms make it possible to establish contacts with tour operators, journalists, and specialized bloggers, and to attract a broader and more diverse audience.

3. Implementation of Favorable Public Policies

- **Tax Incentives and Subsidies**

Local government should implement policies that offer tax incentives and subsidies for businesses and entrepreneurs that invest in infrastructure and services related to bicitourism. This could include tax reductions, subsidies for the construction of bicycle paths, and funding for tourism promotion projects.

- **Creation of Supporting Regulations**

It is crucial to develop regulations that support and regulate bicitourism. These regulations should include guidelines for infrastructure construction, safety standards, and environmental protection policies to ensure that the development of bicitourism is sustainable and respectful of the natural environment.

4. Human Resources Training and Education

- **Training Programs for Tour Guides and Tour Operators**

Specific training programs should be established for tour guides and operators of bicitourism-related services. These programs should cover areas such as cycling safety, local history and culture, and customer service skills.

- **Community Education on Bicitourism**

It is important to educate the local community about the benefits of bicitourism and how they can participate in its development. Workshops and informative talks can be organized to raise awareness among residents about the positive impact of bicitourism on the local economy and the conservation of cultural and natural heritage.

5. Strengthening Collaboration among Involved Stakeholders

- **Creation of Collaborative Networks**

To facilitate cooperation among the different actors involved in bicitourism, collaboration platforms and networks should be created. These networks will allow the exchange of information and



resources, and the coordination of efforts between local authorities, tourism companies, and communities.

- **Promotion of Public-Private Partnerships**

Public-private partnerships can be an effective tool to boost the development of bicitourism. These alliances can facilitate the financing of projects, the joint promotion of routes and events, and the implementation of initiatives that benefit both the public and private sectors.

The action plan formulated in this stage provides a clear and detailed roadmap for promoting bicitourism and ensuring Boyacá's socioeconomic progress. By addressing the barriers identified in the previous stages and proposing concrete solutions in key areas, this plan has the potential to turn bicitourism into a sustainable development engine for the region. Effective implementation of these strategies would not only benefit bicycle tourists and the tourism industry, but would also contribute to the socioeconomic well-being of local communities, promoting inclusive and sustainable growth.

DISCUSSION

Bicycle tourism is an emerging activity with a high potential to stimulate socioeconomic development in various regions of the world, and Boyacá, Colombia, is no exception. Several studies have shown that bicycle tourism can generate multiple economic, social and environmental benefits.

One of the main advantages of bicycle tourism is its ability to generate direct and indirect economic income. According to Xu et al., (2019), bicycle tourism can attract high-spending tourists, especially those interested in long and personalized trips, which benefits local economies through the demand for lodging services, gastronomy and local commerce. In Boyacá, the survey applied to study participants revealed that bicitourism is seen as an opportunity to revitalize the regional economy, highlighting job creation and improvement of local infrastructure as direct benefits.

In addition, bicycle tourism has a positive impact on environmental sustainability. Studies such as those by Uchim and Chiba (2020), have shown that bicycle tourism reduces the carbon footprint compared to other forms of tourism, promoting responsible tourism practices and environmental conservation. Informants in Boyacá agreed that bicitourism can contribute to the protection of the natural and cultural environment by fostering greater environmental awareness among tourists and the local community.

From a social perspective, bicitourism can strengthen the community fabric and improve the quality of life of local residents. According to Bing et al. (2015), community participation in sustainable tourism activities can increase the sense of belonging and local pride. In Boyacá, the promotion of bicitourism could encourage the formation of local cooperatives and associations, creating a support network that benefits all stakeholders.

Despite its advantages, bicitourism faces several challenges that must be overcome to maximize its potential as a catalyst for socioeconomic development. One of the main obstacles identified in Boyacá is the lack of adequate infrastructure, such as bicycle paths and signage. This problem is common in many regions attempting to develop bicycle tourism. As noted by Saplioglu and Aydın (2018), quality infrastructure is essential to ensure the safety and comfort of cyclists, and its absence can discourage both tourists and local residents.

Another significant challenge is the insufficient promotion and marketing of bicitourism. Despite Boyacá's natural and cultural resources, the lack of effective marketing campaigns and presence in media and digital platforms limits the recognition of the region as an attractive destination for bicitourism. Studies such as those by Rosário et al. (2021) highlight the importance of digital marketing strategies to increase visibility and attract a wider and more diverse audience.

Lack of local policy support and coordination is also a critical obstacle. Study participants in Boyacá highlighted the need for public policies that actively promote bicitourism by providing fiscal incentives and subsidies for investments in infrastructure and related services. In the view of Štreimikienė et al. (2020), collaboration between local authorities and tourism stakeholders is critical for the successful development of sustainable tourism.

Finally, the lack of training and education programs for tour guides and service operators represents a significant challenge. The lack of adequate skills in the local community can negatively affect the



quality of experiences offered to bicycle tourists, as suggested by Kabii et al., (2017). In Boyacá, it is essential to implement training programs in areas such as tour guiding, customer service and bicycle maintenance to ensure that the community is prepared to receive and serve tourists efficiently. In general terms, bicitourism has great potential to contribute to the socioeconomic development of Boyacá and other regions, but its effective implementation requires overcoming significant challenges. The creation of adequate infrastructure, effective promotion and marketing, public policy support, and human resource training are key elements for the success of bicitourism. By addressing these challenges, Boyacá can position itself as a renowned bicitourism destination, benefiting both tourists and local communities and promoting inclusive and sustainable growth.

CONCLUSIONS

This study has demonstrated that bicitourism has significant potential to catalyze socioeconomic development in Boyacá, Colombia, as in other regions with similar characteristics. Through a qualitative and descriptive approach, an in-depth understanding of the opportunities and challenges that this emerging tourism activity presents has been achieved.

First, the research results indicate that bicitourism can generate substantial economic benefits for local communities. The demand for related services, such as lodging, gastronomy, and commerce, can boost the regional economy, generating employment and improving local infrastructure. In addition, Boyacá, with its rich cultural and geographic heritage, is particularly well positioned to attract national and international bicycle tourists, benefiting from the reputation of its elite cyclists such as Nairo Quintana.

Bicycle tourism also stands out for its contribution to environmental sustainability. Unlike other forms of tourism, bicycle tourism reduces the carbon footprint and promotes responsible and environmentally friendly practices. This aspect is crucial in a global context where sustainability and conservation of the natural environment have become key priorities.


From a social perspective, bicitourism has the potential to strengthen the community fabric and improve the quality of life of residents. Active community involvement in the promotion and development of bicitourism can increase the sense of belonging and local pride, facilitating the formation of cooperatives and associations that enhance the local economy in an inclusive manner. However, the research has also identified several challenges that need to be addressed for bicitourism to reach its full potential in Boyacá. The lack of adequate infrastructure, such as bicycle lanes and signage, is a significant obstacle that limits the safety and comfort of cyclists. In addition, insufficient promotion and marketing of bicitourism prevents Boyacá from being widely recognized as an attractive destination for bicycle tourists.

Another critical challenge is the lack of support and coordination of local public policies. The implementation of policies that actively promote bicitourism, including tax incentives and subsidies, is essential to encourage investments in infrastructure and services. Human resources education and training are also identified as key elements to guarantee the quality of the experiences offered to bicycle tourists, highlighting the need for specific programs for tour guides and service operators.

Globally, although bicitourism faces considerable challenges, its advantages as a driver of socioeconomic development and environmental sustainability are undeniable. The creation of adequate infrastructure, effective promotion and marketing, the support of favorable public policies, and the training of human resources are essential to overcome these challenges. Boyacá has the potential to position itself as a renowned bicitourism destination, contributing to the socioeconomic well-being of its communities and promoting inclusive and sustainable growth.

REFERENCES

- [1] Acharya, A., y Mohanty, P. (2019). Action Research. *Advances in Business Information Systems and Analytics*. <https://doi.org/10.4018/978-1-5225-5366-3.ch010>.
- [2] Bing, D., Lingling, C. y Xuan, Z. (2015). Una revisión de la literatura sobre la investigación del turismo en bicicleta en el extranjero. *Tribuna de Turismo* , 30, 116-126.

- 
- [3] Blondiau, T., Zeebroeck, B., & Haubold, H. (2016). Economic Benefits of Increased Cycling. *Transportation research procedia*, 14, 2306-2313.
- [4] <https://doi.org/10.1016/J.TRPRO.2016.05.247>.
- [5] Buning, R., & Lamont, M. (2020). Mountain bike tourism economic impacts: A critical analysis of academic and practitioner studies. *Tourism Economics*, 27, 500 - 509.
- [6] <https://doi.org/10.1177/1354816620901955>.
- [7] Cardozo, J. (2014). Boyacá cuna de glorias del ciclismo. [Tesis de formación profesional. Universidad Pontificia Javeriana. Colombia].
- [8] <https://repository.javeriana.edu.co/bitstream/handle/10554/18396/CardozoRosasJuanCarlos2014.pdf>
- [9] Catela, D., & Milheiro, V. (2019). O VALOR ECONÓMICO DO CICLOTURISMO: REVISÃO. 7, 99-101. <https://doi.org/10.25746/RUIIPS.V7.I2.19295>.
- [10] Chilembwe, J. (2017). Oportunidades de sostenibilidad del transporte de bicicletas para el desarrollo turístico: estudio de caso de la ciudad de Mzuzu, Malawi. *Revista de Turismo y Hotelaría*, 4, 01-09. <https://doi.org/10.18510/IJTHR.2017.411>
- [11] Ciascai, O., Dezsi, Ş., & Rus, K. (2022). Cycling Tourism: A Literature Review to Assess Implications, Multiple Impacts, Vulnerabilities, and Future Perspectives. *Sustainability*. <https://doi.org/10.3390/su14158983>.
- [12] Crotti, D., Maggi, E., & Pantelaki, E. (2022). Urban Cycling Tourism. How Can Bikes and Public Transport Ride Together for Sustainability?. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4022040>.
- [13] Cruz, N. (2021). Ecoturismo and cultural tourism: positive and negative impacts in the department of Boyacá, Colombia. *Turismo y Patrimonio*, 1. 29-43.
- [14] <https://ojs.revistaturismoypatrimonio.com/index.php/typ/article/view/271/201>
- [15] Estupiñán Guevara, L. F. (2018). Perfil competitivo de tres ciclistas del equipo profesional “Boyacá raza de campeones” en la vuelta a Colombia. *Revista Digital: Actividad Física Y Deporte*, 3(1). 4-15. <https://doi.org/10.31910/rdafd.v3.n1.2017.355>
- [16] Fishman, E., Schepers, P. y Kamphuis, C. (2015). Ciclismo holandés: cuantificación de la salud y los beneficios económicos relacionados. *Revista estadounidense de salud pública*, 105 8, e13-5. <https://doi.org/10.2105/AJPH.2015.302724>
- [17] Gazzola, P., Pavione, E., Grechi, D., y Ossola, P. (2018). Cycle Tourism as a Driver for the Sustainable Development of Little-Known or Remote Territories: The Experience of the Apennine Regions of Northern Italy. *Sustainability*. <https://doi.org/10.3390/SU10061863>.
- [18] Guo, R., Liu, X. y Song, H. (2021). Relaciones estructurales entre módulos experienciales estratégicos, motivación, ocio serio, satisfacción y calidad de vida en cicloturismo. *Revista Internacional de Investigación Ambiental y Salud Pública* , 18.
- [19] <https://doi.org/10.3390/ijerph182312731>
- [20] Han, H., Lho, L., Al-Ansi, A. y Yu, J. (2020). Turismo en bicicleta: un artículo en perspectiva. *Revista de Turismo* , 75, 162-164. <https://doi.org/10.1108/tr-06-2019-0268>
- [21] Holmes, C., Guliford, M., Mendoza-Davé, M., & Jurkovich, M. (2023). A Case for Description. *PS: Political Science & Politics*, 57, 51 - 56. <https://doi.org/10.1017/S1049096523000720>.
- [22] Kabii, F., Okello, M., & Kipruto, N. (2017). Effects of Tour Guides Training on Their Performance in Kenya. *Tourism hospitality management*, 5. <https://doi.org/10.17265/2328-2169/2017.12.003>.
- [23] Kozleski, E. (2017). The Uses of Qualitative Research. *Research and Practice for Persons with Severe Disabilities*, 42, 19 - 32. <https://doi.org/10.1177/1540796916683710>.
- [24] Kormosne-Koch, K. (2013). Bicycle tourism in Hungary. *Applied Studies in Agribusiness and Commerce*, 07, 67-72. <https://doi.org/10.19041/apstract/2013/1/12>.
- [25] Lee, M. (2015). Plan de turismo en bicicleta para el desarrollo económico: una plantilla para pueblos agrícolas rurales y un estudio de caso para la ciudad de Winters, California. <https://doi.org/10.15368/THESES.2015.26>



- [26]Rodríguez, D y Granados, P. (2017). Diagnóstico de competitividad del turismo en Boyacá (Colombia). *Revista Facultad de Ciencias Económicas*. 25(2), 193-205.
- [27]<https://revistas.unimilitar.edu.co/index.php/rfce/article/view/3073>
- [28]Rosário, A., Raimundo, R., & Cruz, R. (2021). The Impact of Digital Technologies on Marketing and Communication in the Tourism Industry. *Impact of New Media in Tourism*. <https://doi.org/10.4018/978-1-7998-7095-1.CH015>.
- [29]Rui, M. (2009). Análisis sobre el origen, desarrollo y tendencia del cicloturismo. *Revista de la Universidad de Taiyuan*
- [30]Saplioglu, M., & Aydın, M. (2018). Choosing safe and suitable bicycle routes to integrate cycling and public transport systems. *Journal of Transport & Health*. <https://doi.org/10.1016/J.JTH.2018.05.011>.
- [31]Štreimikienė, D., Švagždienė, B., Jasinskas, E., & Simanavicius, A. (2020). Sustainable tourism development and competitiveness: The systematic literature review. *Sustainable Development*, 29, 259 - 271. <https://doi.org/10.1002/sd.2133>.
- [32]Uchim, T., & Chiba, S. (2020). Proposal of a Smart Bicycle Tourism Improving Tourability and Safety for Tourists by Mesh LPWA Communication System. *2020 Eighth International Symposium on Computing and Networking Workshops (CANDARW)*, 298-301. <https://doi.org/10.1109/CANDARW51189.2020.00065>.
- [33]Xia, X., & Wu, J. (2017). A Probe into the Socio-economic Benefits of Bicycle Sharing. , 372-375. <https://doi.org/10.2991/ICHSSD-17.2018.80>.
- [34]Xu, H., Yuan, M., & Li, J. (2019). Well-being of cycling tourists in Hainan, China. *Sport in Society*, 22, 1449 - 1465. <https://doi.org/10.1080/17430437.2019.1619699>.
- [35]Yeh, C., Lin, C., Hsiao, J., & Huang, C. (2019). The Effect of Improving Cycleway Environment on the Recreational Benefits of Bicycle Tourism. *International Journal of Environmental Research and Public Health*, 16. <https://doi.org/10.3390/ijerph16183460>.