

## **BMIH5006 Sustainable Hospitality & Tourism Management**

Student Name: Cristina Croitoru

Student ID:2243006

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## **Executive Summary**

Bicycles are very important as sustainable means of transport in the hospitality industry. Environmental awareness expansion discloses bicycles as an accessible substitute for the usual transport system. The use of bicycles reduces carbon footprint and congestion in urban transportation networks. Using bicycles as transportation means yields two main benefits: improving air quality and providing superior guest satisfaction. Bicycle programmes are identified as a cost-efficient method for hotels and resorts because they possess little maintenance. In addition, it provides ideas for making bicycles more integrated into hospitality venues. As the report suggests, it is better to set up hotel bike rental systems as this offers guests easy cycling access. Sufficient investment in bicycle infrastructure, including dedicated lanes and secure parking facilities, is needed to achieve guest safety and increase cycling rates over driving. These practices will put the hospitality industry on the leadership path of introducing these practices that will attract environmentally alert tourists on the one hand, while protecting the planet for the next generations on the other hand.

## Table of Contents

|                                                                                      |    |
|--------------------------------------------------------------------------------------|----|
| Introduction.....                                                                    | 1  |
| Main Findings .....                                                                  | 2  |
| Overview of Bicycles in Hospitality Transport.....                                   | 2  |
| Environmental Impact.....                                                            | 2  |
| Improving Bicycle Transportation in Hospitality: Cost-Effectiveness and Realism..... | 4  |
| Possible Solutions.....                                                              | 5  |
| Conclusion and Recommendations .....                                                 | 8  |
| References.....                                                                      | 9  |
| Appendix.....                                                                        | 12 |

## List of Figures

|                                                |   |
|------------------------------------------------|---|
| Figure 1 Bicycle in Hospitality Industry ..... | 2 |
| Figure 2 Bike Sharing Programme.....           | 6 |

## Introduction

Hospitality transport is a combination of all the modes of transport used in the hospitality sector to facilitate the movement of guests and delivery of service. As the industry becomes more environmentally friendly, for example, bicycles have become an eco-friendly mode of transport instead of traditional means. This mode of transportation is versatile and can serve as guest transportation, staff commuting, or delivery services. This aligns with the industry's attempts to lower carbon footprints and ensure sustainability (Ndhlovu et al., 2024). Bicycle programme implementation fosters greener hospitality practices and is geared to decrease carbon emissions, reduce dependency on fossil fuels and enhance greener practices in the hospitality industry. It can clean the air and reduce urban traffic to improve the environment for guests and communities (Brand et al., 2022). Bicycles may also be advantageous for hospitality businesses in reducing fuel and maintenance expenses. This report aims to evaluate the environmental impact of using bicycles in the hospitality industry, their efficiency, and areas for improvement. This report also notes that incorporating bicycles as a means of transport in the hospitality transport system can, in the long run, make the business sustainable and efficient in that it will benefit the company and the patrons.

## Main Findings

### Overview of Bicycles in Hospitality Transport

Bicycles are gradually being integrated into hospitality transportation systems as an environmentally friendly means of transport (Rus et al., 2023). Visitor attractions such as hotels and resorts have realised that bicycle rentals encourage clients to tour the areas with an aspect of environmental conservation. Bicycles provide an eco-friendly tourism practice to travellers interested in eco-friendly options or a practical commuting tool for the staff to substitute for fossil fuel-based transport.



*Figure 1 Bicycle in Hospitality Industry*

*Source: (Reynolds et al., 2019)*

This dual usage, both for guests and staff, highlights the versatility of bicycles within the hospitality sector (Karanikola et al., 2018). The identified transport strategies and hospitality businesses have been aligned with sustainability and are, therefore, no longer about providing a better guest experience alone but also about fulfilling sustainability objectives.

## **Environmental Impact**

Bikes are familiar to many as a more eco-friendly means of transport than motorised vehicles. They are direct emitters at use, so they are a cleaner option for guests who wish to avoid contributing to the environmental impact of travelling to neighbouring regions (Rickly et al., 2016). However, using bicycles in the hospitality industry has ecological and social issues that must be addressed. The following are the measures that can be implemented to address the various effects of bicycles concerning emissions, pollution, habitat loss, and social concerns.

2

**Carbon Emissions:** Bicycles, in particular, do not produce emissions when used, but their manufacturing process can be very polluting. The bicycle's life cycle begins with the extraction of aluminium, steel and rubber from the ores. This process is usually energy-demanding and results in significant emissions of greenhouse gases. For instance, the manufacturing process of bicycles results in substantial negative effects on the environment. When metal extraction for aluminum frame production occurs it causes habitat destruction and demands energy consumption. The production methods used for bicycle elements, including welding and painting, require high energy consumption, leading to carbon emissions since they use fossil fuels (Roy et al., 2019). Transporting bicycles from production facilities to both retailers and end customers leads to increased emissions, which becomes worse for extended delivery routes.

**Pollution:** Such infrastructure can also be constructed, which leads to local pollution. Generally, emissions of pollutants and materials used in the construction process, including heavy machinery, hurt air quality around the construction site. The building of bicycles can generate dust and particulate matter that is a health risk to nearby residents and visitors in urban settings where air quality is already a problem.

Furthermore, the substances used in the creation of bicycles can lead to more pollution within the environment if not from sustainable sources (Guzder, 2019). For example, Bicycle components made of non-recyclable plastics like grips and pedals present environmental risks when people dispose of them because they cause pollution of land and water. Environmental degradation occurs because these materials emit dangerous substances during their breakdown process. The solution to reduce these risks demands an integrated method which focuses on sustainable sourcing. The company selects suppliers who maintain environmental standards while using recycled materials to produce bicycle frames from recycled aluminum whenever possible (Navarro, 2023).

**Habitat Destruction:** When bike lanes and related infrastructure are installed, it could harm local wildlife and habitats. This is especially worrying since there are few green spaces in urban areas. However, trees or other vegetation must be removed if bike lanes are developed to disrupt local ecosystems and reduce biodiversity. This is habitat loss for many animal species when plant life is lost, as it is because such alterations are the direct impacts of construction (RITCHIE and HALL 2019).

3

Construction of the road will directly affect wildlife populations and add to human presence in these areas, which will stress wildlife populations even more. The higher the cycling in these lanes, the greater the chances that animals will come into contact with humans, disturbing animal behaviour and habitat use. For example, Urban areas that see more bicycle traffic create additional nesting possibilities for certain bird populations, although such environments drive away native birds that need peaceful habitats (Sander and Tietze, 2022).

**Social Issues:** Where the infrastructure is inadequate, bicycle traffic increases can cause conflict with pedestrians and motor vehicles in areas with too little space. Cycling on the road with cars is dangerous because the extra cyclists are forced to share lanes, putting themselves and other drivers at an increased risk of accidents. Bike lanes that are poorly marked or nonexistent in cities might make cyclists feel vulnerable and thus deter potential users from using bicycles as a mode of transport. But it also erodes the benefits of cycling incorporated into a hospitality transport strategy, and gives a perception of cycling as an unsafe option) and the social dynamics of cycling can also result in conflicts between different road users

(Reynolds et al., 2019). One such example is that urban cyclists experience conflicts with pedestrians when walking and cycling paths have limited space in dense urban environments. The confrontations between cyclists and pedestrians create adverse situations that result in reduced enjoyment for both groups and dangerous scenarios including accidents or sudden halts (Paschalidis et al., 2016).

### **Improving Bicycle Transportation in Hospitality: Cost-Effectiveness and Realism**

Using bicycles for transport in the hospitality industry can be enhanced by implementing infrastructure improvements and green initiatives (Chen and Lee, 2017). To encourage the use of bicycles for transport, hotel and resort owners need to provide bicycle lanes, secure parking, and bike repair services. This would enhance the security of cycling for guests and subsequently make many people use bicycles for transport. Also, by implementing bike-sharing services, people could hire bicycles for short periods and not necessarily need private automobiles. They can assist in easing parking issues and traffic in urban areas besides providing guests with environmentally friendly means of getting around the city. Therefore, in relation to the problem of cost

4

efficiency, bicycles can be considered a feasible solution in hospitality. Motorcycles are cheaper to maintain than motor vehicles, cost little to acquire, and can be used to save on fuel and the costs associated with owning a car (Caicedo et al., 2023). Besides, because bicycles are eco-friendly and have a low carbon footprint for long term use, they are preferred by many businesses that seek to be environmentally conscious. Hence, using bicycle transportation is feasible; however, it demands proper planning and capital investment. There are bound to be some difficulties in implementing bike lanes, especially in busy centres, and the safety of bikers. Nonetheless, this mode of transport can be successfully integrated into the sphere of hospitality, provided specific considerations are made to the advantage of businesses and guests.

### **Possible Solutions**

There are various solutions to tackle those challenges. Authorities need to implement

those strategies properly. Several solutions are given below:

**Sustainable Manufacturing Practices:** Encouraging manufacturers to adopt sustainable production practices can significantly reduce the carbon footprint of bicycle production. This also includes using recycled materials and ensuring that unethical labour practices are not used throughout the supply chain. Using sustainable materials can help reduce the industry's environmental impact by promoting them. Also, because recycled aluminium uses less energy and does not produce waste, manufacturers can use aluminium that has been recycled rather than newly mined (Chen and Lee, 2017). To achieve such goals, Giant Bicycles has pursued a path of sustainability by utilising recycled materials in its production process (GIANT, 2024).

**Improved Infrastructure:** The roads can become safer, and more people can use bicycles if provided with dedicated bike lanes, secure bike parking, maintenance stations, etc. Environmental impact is possible with good infrastructure in terms of protecting green space and not allowing bike lanes to be in natural habitats. One example is green corridors, which create a link between already existing bike paths and parks, offering ecological and recreational benefits (Hull and O'Holleran, 2018). For example, Amsterdam has created extensive bike lane networks linking parks to the city as safe and easy ways to cycle without green space (Nello-Deakin and Nikolaeva, 2020).

**Bike-sharing Programmes:** Bike-sharing services are also popular in many hotels and resorts, allowing guests to rent bicycles for a short time. They assist in discouraging the use of personal and private cars and promote environmentally friendly tourism. Also, bike-sharing programmes can help solve parking problems in urban areas and reduce such problems as congestion and environmental effects (Zheng and Li, 2020).



*Figure 2 Bike Sharing Programme*

*Source: (Ghanem et al., 2017)*

The Hyatt Regency is located in San Francisco, and the guests do not use cars; they can borrow bikes that will help to reduce traffic congestion and, at the same time, give the guests an opportunity to tour around the city (Ghanem et al., 2017).

**Educational Initiatives:** Hotel management should make sure that the guests understand the significance of cycling and cycling routes in a certain region as a mode of transport. This is not only beneficial to them but also to reduce their impact on the environment during their stay. Educational initiatives may include maps, brochures of the area's scenic routes, a guided bike tour, and other points of interest for tourists (Queensland Government, 2020). The Four Seasons Hotel in Vancouver gives guests cycling maps and arranges guided bike tours to show the city's natural scenery while encouraging sustainable travel.

**Partnerships with Local Organisations:** If the biking place partnered with local cycling groups or businesses, the biking experience would be better for the guests and

the local community because of the extra tourism. These partnerships include guided bike tours and activities that showcase local culture and attractions (Rus et al., 2023). The Hotel could use Bike Tours of Seattle to provide a service of free guided bike tours of historical sights and natural wonders. Additionally, it benefits the guest

experiences and the region's local economy and community ties (Nast, 2023).

## **Conclusion and Recommendations**

Bicycles can also be regarded as a sustainable mode of transport in the hospitality industry. Beyond reducing carbon emissions, their integration goes further as it offers

an eco-friendly way for guests to explore the local areas. As hotels and resorts are increasingly adopting cycling as a viable transport option, they also help to create a greener environment as well as appeal to environmentally conscious travellers to promote cycling further so that hospitality businesses should think about expanding bike rental services for their guests so that it will be more convenient for guests to rent bikes while they are staying. This will improve cycling infrastructure like bike lanes and secure parking, making cycling safer and more attractive to guests and leading them to switch from using motor vehicles. Tourism businesses must organise promotional biking events with guided tours to show sustainable travel benefits and establish enduring sustainability practices among their visitors. Bicycle usage has become a bellwether of sustainable practices, a cleaner planet, a healthier planet, and a more enjoyable travel experience for all, and hotels and resorts are leading the way.

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## Appendix

### How to Acknowledge Your Use of AI

This guidance is for students and staff to support the integration of AI tools in assessment.

Every assessment specification identifies the **allowable** use of AI in that assessment. You should be able to see a version of the following table:

|              |                                                                                                                                                                                        |                                                                        |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| RESEARCH     | For this assessment, you can use Generative AI to support you in research, including searching for a bibliography and using tools to summarise, compare, and interrogate materials.    | Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/> |
| STRUCTURE    | For this assessment, you can use Generative AI to support you in structuring your submission, including creating a draft argument structure, identifying parts and headings, etc.      | Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/> |
| PROOFREADING | For this assessment, you can use Generative AI to check your own text/creation for grammatical and syntactical mistakes, including rephrasing your own work within specific standards. | Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/> |
| WRITING      | For this assessment, you can use Generative AI to create text for submission.                                                                                                          | Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/> |
| CREATIVE     | For this assessment, you can use Generative AI to create creative materials, such as images.                                                                                           | Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/> |

12

|             |                                                                          |                                                                        |
|-------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|
|             |                                                                          | No <input checked="" type="checkbox"/>                                 |
| PROGRAMMING | For this assessment, you can use Generative AI to create and check code. | Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/> |

|      |                                                                                                                                                                                                  |                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| NONE | For this assessment, you are not allowed to use <b>any</b> type of Generative AI support. This includes research support, structure support, writing/proofreading support, and creative support. | Yes <input type="checkbox"/> <input checked="" type="checkbox"/><br><br>No <input type="checkbox"/> |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

This guidance will provide you with the necessary information on how to acknowledge your use of AI in any assessment.

**Important:** Students are expected to keep drafts of their work, including notes, etc., before and after the use of any AI tool. Students will be expected to produce these drafts and materials as necessary.

You are expected to use this acknowledgment format for **all** allowable uses of AI.

You are expected to include this acknowledgement on a separate page at the beginning of your submission.

#### **Basic Acknowledgement format of AI tool use**

#### **Acknowledgment of the Use of AI**

I acknowledge the use of Grammarly (<https://www.grammarly.com/>) on 25 February 2025 to check my work using the prompt(s):

- Please check the following text for readability, grammar, and syntax.

I confirm that I have not presented any AI-generated text as my own work. I confirm I have copies of my drafts, notes, and other resources I used before, and after the use of AI tools which I may be asked to provide in evidence.