



CYCLING TOWARDS SUSTAINABILITY: MOTIVATIONS FOR BICYCLE USE IN URBAN SETTINGS

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Abstract

This paper examines the motivations behind the choice of cycling as a mode of transportation in urban settings, with an emphasis on its contribution to sustainable urban mobility. Addressing the critical need for sustainable transportation alternatives, this research investigates the multifaceted reasons that encourage individuals to adopt cycling, encompassing personal health, environmental sustainability, economic benefits, and the influence of urban infrastructure. Utilizing a mixed-methods approach that combines an extensive review of current literature with primary data from semi-structured interviews with 200 urban cyclists, the study unveils a complex set of motivators for cycling. Key findings indicate that health benefits and environmental awareness are significant drivers, yet the availability and quality of urban cycling infrastructure emerge as pivotal in enabling the decision to cycle. The main contribution of this research lies in the detailed analysis of the relationship between personal motivators and infrastructural elements. It demonstrates that comprehensive urban planning and policy support are essential in promoting bicycle use. This study provides valuable insights to urban planners and policymakers on how dedicated cycling paths, safety measures, and public awareness campaigns can effectively encourage a shift towards bicycle use in alignment with broader public health and environmental objectives. The research underscores the essential role of comprehensive urban planning and policy support in promoting cycling, highlighting how dedicated cycling paths, safety measures, and public awareness campaigns can effectively encourage a shift towards bicycle use. By elucidating the diverse motivations for cycling within an urban cohort of 200 respondents, this study offers valuable insights for urban planners and policymakers aiming to foster sustainable mobility solutions that align with broader environmental and public health objectives.

Keywords: Cycling, Sustainability, Motivations, Bicycle Use, Urban Setting

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INTRODUCTION

In the face of escalating environmental concerns, congested urban centers, and the global imperative for sustainable living, the bicycle re-emerges not merely as a relic of a bygone era but as a pivotal instrument of modern urban mobility (Brogan, 2022). The quest for sustainable transportation solutions has led to a renewed interest in cycling, a mode of transportation that offers significant environmental, health, and economic benefits. Despite its potential, the adoption of cycling in urban settings varies significantly, influenced by a complex interplay of factors that include not only individual preferences but also broader social, economic, and infrastructural elements.

The urban environment presents unique challenges and opportunities for cyclists. Cities around the globe are at different stages of fostering a cycling culture, with varying degrees of success (Buehler & Goel, 2022). Critical to this endeavor is understanding the motivations that drive individuals to opt for cycling over other forms of transportation (Biassoni et al., 2023). Research has proven that motivations for cycling encompass a range of factors, from the desire for physical fitness to economic savings to a commitment to reducing one's carbon footprint. However, the barriers to cycling, such as perceived safety concerns, lack of infrastructure, and social norms, also play a significant role in shaping urban cycling habits (Félix et al., 2019).

This study aims to dissect these motivations and barriers within the context of urban settings, focusing on how individual, social, and environmental factors converge to influence cycling behavior. Drawing on the responses of 200 individuals, this research employs a mixed-methods approach, integrating quantitative data from surveys with qualitative insights from interviews. This methodology allows for a nuanced understanding of the motivations for cycling, offering a comprehensive view that encompasses the diverse experiences and perspectives of urban cyclists.

In exploring the motivations for bicycle use in urban settings, this paper seeks to contribute to the broader dialogue on sustainable urban mobility, highlighting the role of cycling in achieving environmental sustainability goals and enhancing the quality of urban life. Through this investigation, we aim to provide insights that can inform policy decisions and urban planning strategies, fostering environments that support and encourage cycling as an integral component of sustainable urban development.

LITERATURE REVIEW

Benefit of Cycling

Cycling offers a multitude of benefits that make it an attractive mode of transportation in urban settings. One of the primary benefits is its positive impact on public health. Regular cycling is associated with improved cardiovascular health, reduced risk of chronic diseases, and enhanced mental well-being (Oja et

al., 2011). A study by Andersen et al. (2000) highlighted that people who cycle to work experienced a 39% lower risk of mortality compared to those who did not engage in physical activity. Additionally, cycling helps in managing weight and reducing the incidence of obesity, which is a growing concern in many urban areas (Gordon-Larsen et al., 2009).

Environmentally, cycling is a zero-emission mode of transport that significantly reduces urban air pollution and greenhouse gas emissions. Gössling and Choi (2015) highlighted that the widespread adoption of cycling in urban areas can lead to substantial reductions in CO₂ emissions, contributing to climate change mitigation efforts. Moreover, by decreasing the reliance on motor vehicles, cycling helps to alleviate traffic congestion, thereby improving air quality and reducing noise pollution in cities (Pucher et al., 2010).

Economically, cycling is a cost-effective mode of transportation. It reduces transportation costs for individuals by eliminating the need for fuel, parking fees, and vehicle maintenance expenses (Litman, 2013). On a broader scale, cities with high cycling rates can save on healthcare costs due to the improved health of their populations and reduced road infrastructure maintenance expenses (de Hartog et al., 2010). For instance, a study conducted in Copenhagen estimated that for every kilometer cycled, society enjoys a net benefit of 0.16 EUR, largely due to health benefits and reduced pollution costs (Gössling & Choi, 2015). Furthermore, cycling promotes social inclusivity and community interaction. It is accessible to a wide range of socio-economic groups, including those who may not afford a car or other forms of motorized transport (Aldred, 2012). Cycling infrastructure, such as bike lanes and parking facilities, can transform urban spaces into more livable and community-friendly environments, encouraging social cohesion (Pucher et al., 2010).

In summary, the benefits of cycling are extensive and multifaceted. It enhances public health, reduces environmental impact, offers economic advantages, and fosters social inclusivity. These benefits underscore the importance of promoting cycling as a key component of sustainable urban mobility strategies. Therefore, by understanding and leveraging these benefits, urban planners and policymakers can develop more effective interventions to encourage cycling in cities.

Motivations for Bicycle Use

The motivations for choosing cycling in urban settings are diverse, encompassing health, environmental, economic, and social factors. Health benefits are significant, as cycling improves cardiovascular fitness, reduces chronic disease risk, and enhances overall well-being (Oja et al., 2011). Studies suggested that regular cyclists have lower obesity rates and better mental health outcomes (Gordon-Larsen et al., 2009). Environmental awareness also motivates cycling. As concerns about climate change and air quality grow, many choose cycling to reduce their

carbon footprint and promote sustainability (Gössling & Choi, 2015). Economically, cycling is cost-effective, eliminating fuel, parking, and maintenance expenses. It is accessible to lower-income groups and helps cities save on healthcare and infrastructure costs (Litman, 2013; de Hartog et al., 2010). Social factors also influence cycling. It promotes community interaction and is perceived as a modern, efficient mode of transport. Social norms and supportive environments increase cycling adoption (Aldred, 2016). Personal enjoyment and satisfaction from cycling also play a crucial role (Heinen et al., 2010).

In summary, health benefits, environmental consciousness, economic savings, and social influences are key motivations for urban cycling. Understanding these motivations is essential for developing policies and infrastructure that promote cycling as a sustainable urban transport mode.

Policy and Planning

In Malaysia, policy and planning for cycling infrastructure have been gaining momentum, particularly in urban areas such as Kuala Lumpur and Penang. The Malaysian government has initiated several projects aimed at promoting cycling, including the development of dedicated bike lanes, bike-sharing programs, and the integration of cycling paths with public transportation networks. For example, the Penang Bicycle Lane Master Plan (Government of Penang, 2021) aims to create a comprehensive network of bike lanes throughout the island, encouraging both locals and tourists to adopt cycling as a mode of transportation. Additionally, initiatives like the (Kuala Lumpur City Hall, 2021) Kuala Lumpur Car-Free Morning event promote cycling by closing certain roads to motor vehicles, thereby encouraging residents to cycle in a safer environment.

Internationally, cities like Copenhagen, Amsterdam, and Portland have set exemplary standards for cycling policy and infrastructure. Copenhagen's commitment to becoming carbon-neutral by 2025 includes extensive investments in cycling infrastructure, resulting in over 60% of its residents commuting by bike daily. Meanwhile, Amsterdam, known for its robust cycling culture, has implemented policies that prioritize cyclists, including widespread bike lanes, traffic lights synchronized for cyclists, and ample bike parking facilities. At the same time, in Portland, the city's Bicycle Plan for 2030 outlines ambitious goals to make cycling a cornerstone of its transportation system. This includes the creation of extensive bikeway networks and supportive policies such as bicycle-friendly zoning regulations and financial incentives for cycling commuters.

Both Malaysia and these international examples highlight the significance of comprehensive urban planning and policy support in promoting cycling. While Malaysia is in the early stages of developing its cycling infrastructure, lessons can be drawn from cities that have successfully integrated cycling into their transportation systems. Key strategies include the development of extensive and connected bike lanes, integration with public transport, public

awareness campaigns, and safety measures. By adopting these practices, Malaysia can enhance its efforts to promote cycling and achieve sustainable urban mobility.

Case Studies and Comparative Analyses

This research examines case studies from cities both within and outside Malaysia to draw comparative insights into effective cycling promotion strategies. In Malaysia, Penang serves as a notable example with its Bicycle Lane Master Plan, aiming to establish a comprehensive network of bike lanes across the island. The initiative has demonstrated promising results, with increased cycling rates among both locals and tourists. Kuala Lumpur's Car-Free Morning events also highlight the potential of temporary traffic interventions to boost cycling in urban environments by providing safe, car-free zones for cyclists.

Internationally, Copenhagen stands out with its extensive cycling infrastructure and ambitious goals to become carbon-neutral by 2025. Over 60% of Copenhagen's residents commute by bike daily, supported by a network of over 400 kilometers of dedicated bike lanes, traffic signals for cyclists, and cycling superhighways that connect suburban areas to the city center. Similarly, Amsterdam's robust cycling culture is facilitated by policies that prioritize cyclists, such as extensive bike lanes, bike-friendly traffic laws, and ample bike parking facilities, resulting in nearly 50% of all city trips being made by bicycle. Comparing these cases, several key strategies emerge. Both Penang and international cities like Copenhagen and Amsterdam emphasize the importance of comprehensive and connected bike lane networks. Safety measures, such as well-lit paths and traffic calming, are crucial in making cycling a viable and attractive option. Integration with public transportation, as observed in Amsterdam, enhances the convenience and practicality of cycling. Public awareness campaigns and community events, like Kuala Lumpur's Car-Free Mornings, play a significant role in changing public attitudes towards cycling.

These case studies underscore the critical role of infrastructure, policy support, and cultural acceptance in promoting cycling. Notably, Malaysia can draw valuable lessons from international examples to further develop its cycling initiatives, focusing on creating safe, accessible, and integrated cycling environments that encourage sustainable urban mobility.

Table 1: Comparison of Cycling Initiatives in Various Cities

City	Daily Cycling Rate (%)	Bike Lane Network (km)	Key Initiatives
Penang	15	120	Bicycle Lane Master Plan
Kuala Lumpur	5	50	Car-Free Morning events
Copenhagen	60	400	Carbon-neutral goal, cycling superhighways
Amsterdam	50	500	Extensive bike lanes, bike-friendly traffic laws
Portland	25	300	Bicycle Plan for 2030, bike-friendly zoning

Source: (Global Bicycle Cities Index, 2023)

Conclusion of Literature Review

The research on "Cycling Towards Sustainability: Motivations for Bicycle Use in Urban Settings" provides a comprehensive examination of various factors that encourage urban cycling, integrating health, environmental, economic, and social dimensions. A significant strength of this study is its mixed-methods approach, which combines extensive literature reviews with primary data from semi-structured interviews, offering a balanced understanding of cycling motivations. The findings align with existing research, such as Oja et al. (2011) and Gordon-Larsen et al. (2009), confirming the health benefits of cycling and the role of environmental awareness in promoting sustainable transportation (Gössling & Choi, 2015). However, the study also highlights critical gaps that require further exploration.

Despite the emphasis on the importance of urban infrastructure, as supported by Pucher and Buehler (2012), this research suggests that more studies are needed to understand the long-term impacts of infrastructural investments on urban mobility patterns. Additionally, while valuable comparisons are made with international examples like Copenhagen and Amsterdam, there is a lack of data from low- and middle-income countries, limiting the generalizability of the findings. The research also calls for more interdisciplinary studies, integrating urban planning, public health, and social psychology to develop holistic approaches to cycling promotion.

RESEARCH METHODOLOGY

This study employed a mixed-methods approach to explore the motivations behind bicycle use in urban environments. This approach allowed for a detailed examination of both quantitative and qualitative aspects of cycling motivations,

offering a more nuanced understanding of the factors that encourage urban residents to cycle.

Research Design

This study employs a mixed-methods approach, combining quantitative surveys with qualitative semi-structured interviews. This design allows for a comprehensive understanding of the motivations and barriers to cycling in urban settings, particularly in Jitra, Kedah. The mixed-methods approach enables the integration of numerical data and personal narratives to provide a holistic view of cycling behaviors and perceptions.

Population and Sample

The target population for this study comprises urban cyclists in Jitra, Kedah. The sample size of 200 respondents was determined to be sufficient for achieving a representative sample of the urban cycling population in this area. This decision is supported by previous studies, which have considered a sample size of 200 adequate for detecting significant effects and providing reliable insights (Heinen et al., 2010; Fishman et al., 2013; Pucher & Buehler, 2012).

A stratified random sampling method was employed to ensure diversity within the sample, reflecting the broader population demographics. The population was stratified based on key demographic variables such as age, gender, and occupation. This approach ensures that various subgroups within the population are adequately represented, enhancing the generalizability of the findings.

Statistical power analysis indicated that a sample size of 200 would provide adequate power to detect significant effects with a margin of error of $\pm 5\%$ at a 95% confidence level. Additionally, comparisons with similar studies in the field support the adequacy of this sample size for generalizing findings to the urban population. Previous research by Heinen et al. (2010), Fishman et al. (2013), and Pucher and Buehler (2012) demonstrated that a sample size of 200 is sufficient for reliable and valid results in urban cycling studies.

Research Instruments

The research instruments used in this study consist of structured questionnaires and semi-structured interview guides. The structured questionnaire was developed to collect quantitative data and includes several sections: demographic information (age, gender, occupation, and income level), cycling behavior including the frequency of cycling (daily, weekly, monthly), primary purposes for cycling (commuting, errands, recreation), the average distance traveled per trip, and duration of typical cycling trips. Additionally, the questionnaire covers motivations for cycling, such as health benefits, environmental concerns, economic savings, and social and lifestyle factors. It also assesses cycling infrastructure and safety by

asking about the availability and quality of bike lanes, perceived safety of cycling routes, access to bike-sharing programs, and common issues faced while cycling.

The semi-structured interview guide was used to conduct in-depth interviews with a subset of survey respondents. The guide covered areas such as personal cycling experiences, including daily routines and specific incidents. This comprises perceptions and attitudes towards cycling as a mode of transportation, views on current cycling infrastructure and suggestions for improvement, barriers to cycling such as unsafe road conditions and lack of bike lanes, motivations and benefits derived from cycling, and policy and infrastructure suggestions to promote cycling. The combination of these two instruments enables comprehensive and in-depth data collection, providing a holistic understanding of cycling behaviors and perceptions in Jitra, Kedah.

Data Collection Procedures

Data collection was conducted over a period of two months. The surveys were distributed both online and in person. Online surveys were disseminated through social media platforms, community forums, and email lists targeting residents of Jitra. In-person surveys were conducted at key locations frequented by cyclists, such as parks, community centers, and bicycle shops. Informed consent was obtained from all respondents prior to their participation. Participants were informed about the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses.

Semi-structured interviews were conducted with a subset of survey respondents who volunteered for the follow-up interviews. These interviews were conducted either face-to-face or via telephone, depending on the respondents' preferences and availability. Each interview lasted approximately 30 to 45 minutes.

Quantitative Analysis

Statistical analysis was performed using SPSS software. Descriptive statistics (e.g., mean, median, mode, standard deviation) were used to summarize demographic information and cycling behaviors. Inferential statistics, such as t-tests and regression analysis, were employed to identify significant relationships between variables. For example, the relationship between the frequency of cycling and the perceived safety of cycling routes was examined.

Qualitative Analysis

Interview transcripts were analyzed using thematic analysis, with the data being coded and organized into themes using NVivo software. The coding process involved several steps. First, in the open coding phase, initial codes were assigned to segments of the text that appeared significant or interesting. Next, during axial coding, these initial codes were grouped into broader categories or themes. Finally, in the selective coding phase, core themes that encapsulated the main ideas and

patterns in the data were identified. This systematic approach ensured that the qualitative data were thoroughly examined and that the key insights were effectively captured.

Integration of Quantitative and Qualitative Data

To provide deeper insights and connect the quantitative and qualitative data, this study employed a process of triangulation and mixed-methods integration. Quantitative data from the surveys were cross-verified with qualitative data from the interviews to ensure reliability and validity. For example, survey data on cycling frequency and motivations were compared with interview narratives to validate and enrich the findings. Key themes identified from the qualitative analysis were used to contextualize and explain quantitative findings. This includes providing detailed descriptions of specific safety issues faced by cyclists when quantitative data indicates significant safety concerns. Additionally, points of convergence, where quantitative and qualitative data align, and divergence, where they differ, were identified to provide a comprehensive understanding of the research problem. Accordingly, this enables the development of targeted interventions to promote cycling as a sustainable mode of urban transportation in Jitra, Kedah.

ANALYSIS AND DISCUSSION

The analysis of this study revealed several key insights into the cycling behavior, motivations, and challenges faced by urban cyclists in Jitra, Kedah. Quantitative data indicated that health benefits are the primary motivator for cycling, followed by environmental concerns and economic savings. However, significant safety concerns due to inadequate infrastructure were also highlighted. The qualitative data provided a deeper context, with personal narratives emphasizing the need for better cycling paths and road safety measures.

Table 2: Motivation for Cycling

Motivation	Percentage of Respondents
Health Benefits	70%
Environmental Concerns	50%
Economic Savings	45%
Social and Lifestyle	30%

Table 2 highlights the primary motivations for cycling among respondents in Jitra, Kedah. Health benefits are the leading motivator, with 70% of respondents cycling to improve their physical health. Environmental concerns motivate 50% of respondents, reflecting a commitment to reducing carbon footprints. Economic savings, cited by 45%, underscore cycling's cost-effectiveness compared to other transportation modes. Additionally, 30% are driven by social and lifestyle factors, enjoying the social interactions and modern,

efficient nature of cycling. These insights suggest that promoting cycling through improved infrastructure and public awareness can enhance urban health and sustainability.

In summary, the motivations for cycling in Jitra, Kedah are multifaceted, encompassing health, environmental, economic, and social dimensions. Understanding these motivations is crucial for developing targeted interventions that can effectively promote cycling. Notably, policy measures such as creating more dedicated cycling lanes, improving road safety, and conducting public awareness campaigns can address the barriers and enhance the appeal of cycling. Thus, by fostering a supportive environment for cyclists, urban planners and policymakers can contribute to the broader goals of public health and environmental sustainability.

Table 3: Cycling Behavior

Cycling Behavior	Percentage of Respondents
Daily	50%
3-5 times a week	30%
1-2 times a week	20%
< 5 km per trip	30%
5-10 km per trip	50%
> 10 km per trip	20%
< 15 minutes per trip	35%
15-30 minutes per trip	40%
> 30 minutes per trip	25%

Table 3 provides insights into the cycling behavior of respondents in Jitra, Kedah. The data indicates that 50% of respondents cycle daily, indicating a high level of regular engagement in cycling activities. This suggests that for many, cycling is an integral part of their daily routine, likely for commuting to work, school, or other daily activities. Additionally, 30% of respondents cycle three to five times a week, while 20% cycle once to twice a week. This frequency distribution highlights that a significant proportion of the population uses cycling regularly, although not daily. These respondents might use cycling as a supplementary mode of transport or for specific activities such as errands or recreational purposes. The table also indicates that 30% of respondents typically cycle less than 5 kilometers per trip. This short distance suggests that cycling is primarily used for local travel within the urban area, making it a convenient and efficient mode of transportation for short commutes.

In summary, the cycling behavior in Jitra, Kedah, suggests a strong inclination towards regular cycling, with a substantial portion of the population engaging in daily or frequent cycling. This behavior underscores the potential of cycling as a sustainable and practical urban transport solution. To further support and encourage this behavior, urban planners and policymakers should focus on

enhancing cycling infrastructure, ensuring safety, and promoting cycling as a viable alternative to other forms of transportation.

Table 4: Perceived Safety of Cycling Routes

Perceived Safety	Percentage of Respondents
Very Safe	25%
Somewhat Safe	35%
Unsafe	40%

Table 4 illustrates that 25% of respondents feel cycling routes in Jitra are very safe, 35% consider them somewhat safe, and 40% perceive them as unsafe. This highlights significant safety concerns, with nearly three-quarters of respondents finding the routes less than very safe. The data underscores the urgent need for improvements in cycling infrastructure to enhance safety and encourage more people to cycle. Addressing these safety issues is crucial for promoting cycling as a sustainable transportation option in Jitra.

Qualitative Insights

The thematic analysis of the interview transcripts highlighted several themes related to motivations for cycling, which enriched the understanding gained from the survey data. Key themes included:

- **Personal Health and Well-being:** Many participants described cycling as a key component of their fitness routine and valued the physical and mental health benefits it provided (Ma et al., 2021). Some mentioned the sense of freedom and relaxation experienced while cycling, which contributed to their well-being.
- **Environmental Responsibility:** A strong sense of personal responsibility towards reducing carbon footprints was evident (Schübel, 2023). Participants often discussed their choice to cycle as part of a broader lifestyle commitment to environmental sustainability.
- **Economic Considerations:** The cost-effectiveness of cycling, especially in terms of saving money on public transport or fuel for cars, was frequently mentioned (Yu et al., 2018). For some, this was particularly crucial given the economic uncertainties.
- **Urban Cycling Infrastructure:** The availability and quality of cycling infrastructure, such as bike lanes and parking, were cited as crucial factors influencing the decision to cycle (Adsule & Kadali, 2024). Participants also expressed a desire for further improvements in infrastructure to enhance safety and convenience.
- **Community and Social Interaction:** Several cyclists spoke of the community aspect of cycling, including participation in cycling groups and the social interactions that arose from cycling in urban spaces (Ravensbergen et al., 2024).

The analysis of cycling behavior, motivations, and perceived safety in Jitra, Kedah, reveals important insights. Health benefits, environmental concerns, and economic savings are the primary motivators for cycling, underscoring the multifaceted appeal of cycling as a mode of transportation. Despite these strong motivators, significant barriers such as safety concerns and inadequate infrastructure hinder the wider adoption of cycling. The data indicates that a considerable proportion of respondents perceive cycling routes as unsafe, highlighting the need for substantial improvements in cycling infrastructure.

To promote cycling as a viable and sustainable urban transportation option, it is essential for urban planners and policymakers to address these safety concerns. In addition, enhancing the availability and quality of bike lanes, implementing better road maintenance, and conducting public awareness campaigns can create a more supportive environment for cyclists. Thus, by focusing on these areas, Jitra can foster a safer and more attractive cycling culture, contributing to broader public health and environmental sustainability goals.

CONCLUSION

The research conducted in Jitra, Kedah, reveals critical insights into the motivations and barriers faced by urban cyclists. Health benefits, environmental sustainability, and economic savings emerge as the primary drivers for individuals choosing to cycle. Studies such as those by Oja et al. (2011) and Gordon-Larsen et al. (2009) supported these findings, highlighting the significant health benefits of cycling. Additionally, research by Gössling and Choi (2015) emphasized environmental awareness among urban cyclists. Despite these positive motivations, the study highlights significant safety concerns, with 40% of respondents rating cycling routes as unsafe. This underscores the urgent need for enhanced cycling infrastructure to support and encourage cycling (Pucher & Buehler, 2012).

To effectively promote cycling as a viable and sustainable mode of urban transportation, it is essential for policymakers and urban planners to address these safety issues. Key recommendations include the development of dedicated bike lanes, better road maintenance, and comprehensive public awareness campaigns aimed at promoting cycling safety. By implementing these improvements, Jitra can foster a safer and more attractive cycling environment, ultimately contributing to improved public health, reduced environmental impact, and a more vibrant urban community.

This study highlights the multifaceted benefits of cycling and the critical steps needed to overcome existing barriers. By prioritizing the enhancement of cycling infrastructure, Jitra can set a precedent for other urban areas, demonstrating the significant impact of supportive policies and infrastructure on promoting sustainable urban mobility (Fishman et al., 2013; Heinen et al., 2010). However, the research also identified barriers to cycling, including safety concerns, adverse

weather conditions, and social stigma. This highlights areas where urban planning and community initiatives can further improve to make cycling a more attractive and viable option for a broader segment of the population.

In conclusion, this study contributes valuable insights into the motivations for bicycle use in urban settings, offering evidence-based recommendations for urban planners, policymakers, and community organizations aimed at promoting cycling as a cornerstone of sustainable urban mobility. By addressing both the incentives and obstacles associated with cycling, cities can harness their full potential as a mode of transportation that benefits not only individual health and well-being but also the environmental sustainability and social vitality of urban communities.

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