Rozwój Regionalny i Polityka Regionalna 79: 91–107 | 2026
https://doi.org/10.14746/rrpr.2026.79.06
ISSN 2353-1428 (print) | ISSN 2957-1618 (online)

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Keys to success in bikesharing: Insights from the Mevo 2.0 System in the OMGGS Metropolis, Poland

Abstract: This paper examines the key success factors and major barriers to the development of bike-sharing systems (BSSs) in cities of varying sizes. Using the Mevo 2.0 system in the Gdańsk–Gdynia–Sopot metropolitan area as a case study and benchmarking it against 63 Polish BSSs, the analysis reveals that large cities face challenges related to financial constraints and spatial planning, while medium-sized cities demonstrate better BSS performance. An excessive number of BSSs can lead to communication issues and oversupply. Therefore, city authorities should prioritize public participation, infrastructure investments, and spatial planning to enhance BSS efficiency.

Keywords: active mobility, bikesharing, urban mobility, transport policy, benchmarking

Introduction

In recent years, there has been a growing interest in the implementation and operation of BSSs in cities. This trend is linked to the pursuit of sustainable urban mobility in response to, among other factors, the increasing issues of traffic congestion and environmental pollution (Eren, Uz 2020). Cycling owes its popularity to its high level of flexibility, as it allows for relatively fast and inexpensive travel while generating positive effects on health and being environmentally friendly (Cheng et al. 2020). Five generations of BSSs can be distinguished (Fig. 1).

Demand for BSSs is influenced by various factors; however, unlike other modes of transport, bike usage is affected by external variables that are difficult to predict, such as outdoor temperature, humidity, precipitation, wind speed,

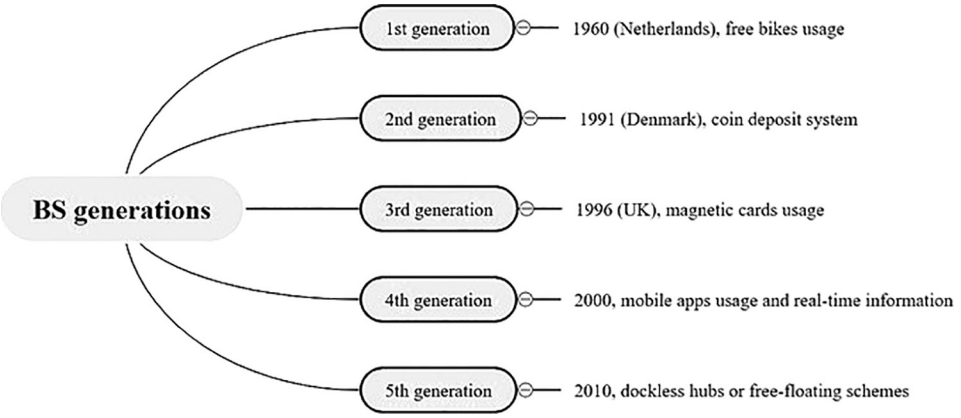

Fig. 1. BSS generations
Source: DeMaio (2009).

and the subjective perception of cold or heat (Eren, Uz 2020). Therefore, the development of BSSs can vary depending on the climate and the availability of facilities for cyclists in public places. In Europe and North and South America, BSSs are primarily used by young people living close to city centers and with relatively high incomes, while in Asia, BSSs are utilized by young and middle-aged individuals with lower incomes (Zheng, Li 2020).

Based on a preliminary literature analysis, a research gap was identified regarding the limited number of studies on the success factors for BSS implementation and the factors that may hinder their development. Focusing on the experiences of selected cities can help support city authorities in implementing or improving existing BSS. Therefore, this paper analyzes the case study of Mevo 2.0, which operates in the Gdańsk–Gdynia–Sopot (OMGGS) metropolitan area in Poland, while benchmarking BSSs in other Polish cities. This paper aims to identify factors that determine the success of BSS implementation and operation in cities and to verify whether large cities and agglomerations have an advantage over small and medium-sized cities in terms of BSS development. The article is structured as follows: In Section 2, a literature review is presented. Section 3 describes the research procedure. Section 4 presents the results of the research on a case study of the implementation of Mevo (1st version), the implementation of Mevo 2.0 in the OMGGS area, and its benchmarking against others. Finally, a discussion is included, and the most important conclusions are presented.

Literature review

Challenges in developing urban cycling systems in cities

Increasing the share of cycling in the modal split requires municipalities to take several measures, including the modernization of cycle paths, the construction

of parking facilities, and the implementation of cycling policies or BSSs. This generates management challenges related to selecting appropriate locations for docking stations, parking facilities, and cycle paths (Kwiatkowski, Szymańska 2021). Ideally, they should be located near tram, bus, or train stations and stops to facilitate the integration of different modes of transport (Otsuka et al. 2019). An important aspect of developing cycling transport in towns and cities is promoting it among users, particularly men, who are more likely to choose private cars (Oviedo, Sabogal-Cardona 2022). Effective promotion of cycling requires mapping different user groups to better address their needs. A frequently overlooked aspect is the participation of users in the planning and implementation of measures (Strömberg, Wallgren 2022). A barrier to the development of cycling may also be the lack of a long-term strategy for cycling development (Jarosz, Springer 2023).

Infrastructure is often perceived as the most important element of cycling development; high-quality infrastructure can increase bicycle use, whereas poor conditions may lead to a reduction in cycling traffic. Investing in the development of cycling infrastructure in the city center, to the exclusion of the suburbs (Koglin Mukhtar-Landgren 2021). Exclusion can also be fostered by architectural barriers (Pilko 2015). Cycling mobility is often perceived as recreational; therefore, it is important to take actions that demonstrate the bicycle as a comfortable and fast means of transport (den Hoed, Jarvis 2022). Many cities still lack adequate cycling policies, which contributes to the marginalization of this form of mobility and promotes short-term planning (Koglin, Mukhtar-Landgren 2021).

The bicycle is one of the few modes of transport whose users are significantly affected by weather conditions and spatial constraints (Strömberg, Wallgren 2022). It is also difficult to predict the duration of a journey, as it largely depends on the user's age and fitness level. Consequently, using a bike for daily trips can be perceived as more suitable for young and healthy individuals. Many cities' BSSs often offer electrically assisted bicycles, which can be used by the physically frail and elderly. Additionally, BSSs can help address the problem of an oversupply of bikes in urban areas (Nikolaeva, Nello-Deakin 2020).

European solutions for developing BSS in cities

There are currently more than 2,000 BSSs operating worldwide (Fig. 2). Good practices in implementing urban BSSs indicate that the most important success factor is tailoring the scheme to meet the needs of various user groups.

The cycling capital of Europe is undoubtedly Amsterdam (Zheng, Li 2020), where the first BSS was established in the 1960s and operated in a free-floating format, allowing bikes to be hired and returned anywhere (Fishman et al. 2013). Currently, most BSSs operating in Europe are dock-based, where bikes are rented and returned to designated stations. The same applies to dockless hubs, where bikes can be left in a designated area. BSSs can be an important component in shaping urban tourism.

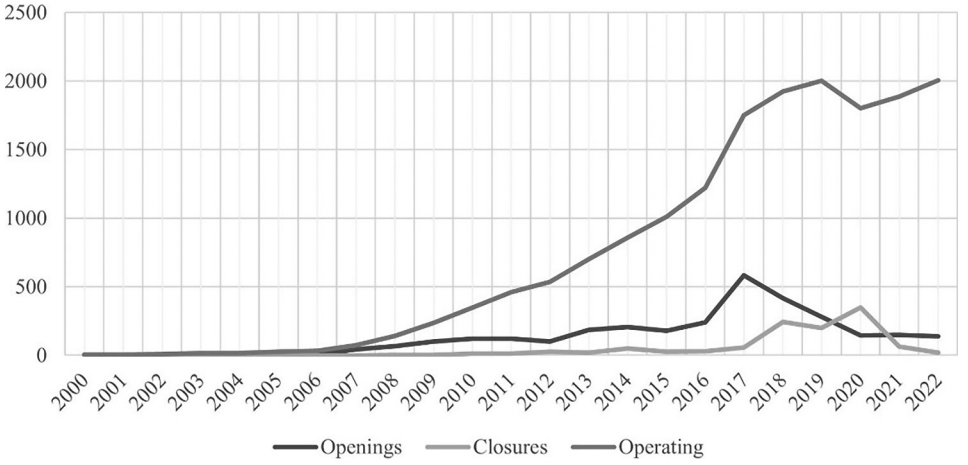

Fig. 2. Number of BSS worldwide
Source: PBSC Urban Solution (2022).

The development of BSSs is a response by cities and private operators to changes in urban mobility. While cycling is an environmentally friendly means of transport, the successful implementation of BSSs requires well-developed infrastructure, including protected cycle paths (Becker et al. 2022). The biggest challenges associated with the implementation and operation of BSS are management issues, such as unrealistic expectations regarding operator revenues and a lack of a coherent vision for the development of cycling transport in the city (Nikitas 2019). This issue was resolved in Brussels. The Villo! bike-sharing system operates as a public-private partnership, in which the private operator covers operating costs in exchange for advertising rights (Dzięcielski et al. 2025). This model has enabled the successful implementation of the system in Brussels. Additionally, the limited number of bicycle parking facilities poses a challenge (van Waes et al. 2020). The city suffers from insufficient coverage (Schering, Gómez 2022) or the threat of vandalism.

Methods

This study aims to identify the success factors for BSS implementation. Given the differences between countries, cities, and individual systems, it seems reasonable to employ the case study method. However, the use of this method alone cannot guarantee the identification of success factors. Therefore, the case study method has been complemented with BSS benchmarking in Poland in the proposed study. The research procedure is illustrated in Figure 3.

The research procedure consisted of several steps: (1) analyzing the literature from publicly available databases such as EBSCO, Web of Science, and Google Scholar; (2) selecting a case study based on its characteristics as an original case; and (3) conducting a benchmarking analysis of the BSS.

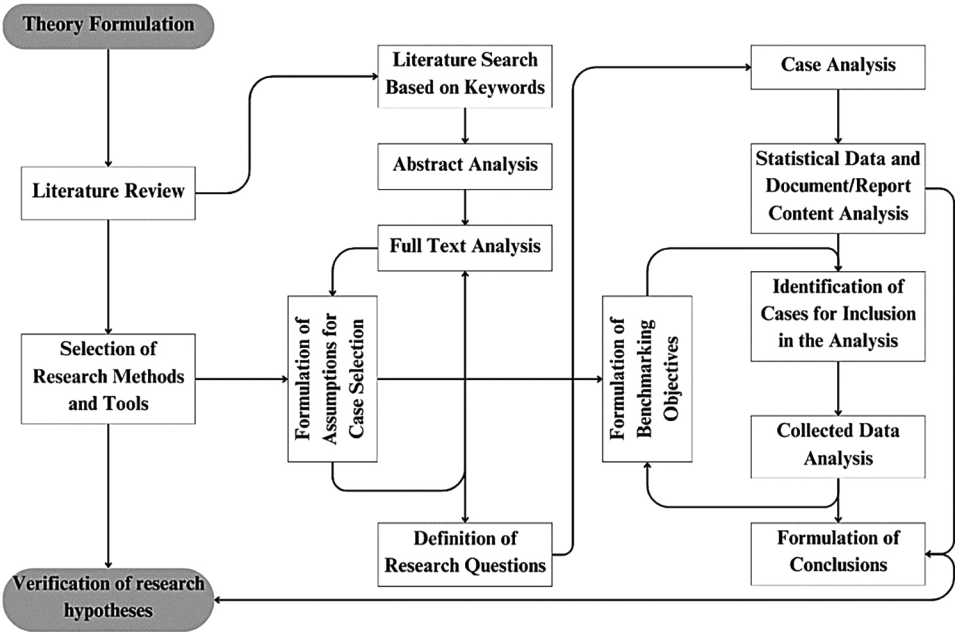

Fig. 3. Research procedure
Source: own elaboration based on Iðoraitë (2004), Mohd Noor (2008).

The Mevo 2.0 system, which is the 2nd version of the metropolitan bicycle system operating in OMGGS in Poland, was selected for the analysis. The Mevo system ceased operation after only 7 months of operation. The reasons for the failure have been the subject of much public and scientific discussion. The new version of the Mevo 2.0 system was launched in 2024. The OMGGS currently consists of 29 municipalities, including 23 cities. The core of the OMGGS is the Tricity agglomeration (Gdańsk, Gdynia, Sopot). The OMGGS has a population of 1.6 million and covers a metropolitan area of 5,500 km^2. OMGGS is one of the most developed areas in Poland, comparable to other European metropolises.

The next step was to benchmark the BSSs operating in Poland. Benchmarking is a tool for comparing best practices, allowing for the identification of advantageous factors that can facilitate subsequent implementation (Pronello et al. 2024). Benchmarking is, therefore, a tool for continuous learning from the experiences of others. Several types of benchmarking can be distinguished based on different criteria (Išoraite 2004). For this study, the subject criterion of strategic benchmarking was adopted.

BSSs in Poland were selected for comparison (n = 63), operating in 58 cities (Cracow, Bydgoszcz, and Szczecin each have more than one system). Additional data were collected from open databases, including the Bank of Local Data and the Central Statistical Office. Information on existing Sustainable Urban Mobility Plans (SUMPs) was verified using the SUMP Repository from the Ministry of Infrastructure. The data pertains to 2023, with gaps in that year filled

by information from 2022. This approach enabled a comparison of cities across six categories, as presented in Table 1. For each indicator, the ranking position of each city relative to the OMGGS was assessed and assigned a value of 100%, a crucial element of the benchmarking analysis using the benchmarking index. In cases where cities received the same indicator value, rankings were assigned sequentially. Finally, the arithmetic mean for each category was calculated, resulting in a final score (*total*) for each city, derived as the arithmetic mean of the results from all categories.

Table 1. Components of the benchmarking indicator (BI)

Category	Variable	Value
General characteristics	City size category	average value
	GDP per capita	
	Population density	
Transportation network	Length of cycle lanes	average value
	Length of cycle lanes/10 km^2	
	Length of paved roads	
	Length of paved roads/10 km^2	
	Length of PT lines	
BS schemes	Number of Bicycles	average value
	Number of stations	
	Number of BS schemes	
	Bicycles adapted to the needs of ppl with disabilities	
	P+B parks	
	Station/10 km^2	
	Bicycles per 1000 ppl	
Cost-effectiveness	Cost per 1st hour	average value
	Discount for ppl with a Resident's Card	
Transport integration	Number of available means of transport	value
Urban cycling policy	Applicable SUMP document	average value
	Existing cycling policy	
Total	Average value of the values in categories	

Source: own elaboration based on Niedzielski and Tundys (2012).

The selection of categories and indicators was based on a literature analysis regarding BSS in the city and an analysis of best practices. Data in EUR were provided based on the exchange rate from September 24, 2024 (1 EUR = 4,27 PLN). The size of the city was determined according to the methodology of the Central Statistical Office, where cities with up to 20,000 residents are classified as small (assigned 1), medium cities range from 20,000 to 100,000 residents (assigned 2), and large cities have over 100,000 residents (assigned 3). A separate category was established for agglomerations with populations over 500,000 (assigned 4). The number of BSS in the city was presented as the sum of all BSS operating in the city. The proportion of bicycles adapted for the needs of people with disabilities was provided in a binary format (1 if the city has such bicycles and

0 if it does not), given that most cities do not possess these types of bicycles. For the number of available Park and Ride (P+B) parking spaces, the count was provided based on occupancy, with the absence of such facilities indicated as 0. A binary scale was applied for the presence or absence of discounts for holders of the Resident Card (1 if the city offers such discounts and 0 if it does not). Similarly, the existence of SUMPs was assessed in the same manner. The total was applied to transportation modes in the city, distinguishing between trains, buses, trams, trolleybuses, electric scooters, motorcycles, car-sharing, and city bicycles. Existing cycling policies in the city were also implemented, considering only documents that directly referred to cycling transport. The results were then summarized.

Results

The first version of the Mevo system

In 2017, 14 municipalities that are part of the OMGGS joined the project to build a Metropolitan Bicycle System. The aim of initiating work on the implementation of the Mevo system was not so much to promote bicycle transport, but primarily to address the first and last mile problem. The idea was that shared bikes should be an attractive and easily accessible means of transport, allowing users to reach integration nodes and transfer to railway, bus, or tram/trolleybus services.

The project began with a detailed Bicycle Policy Audit (BYPAD). The highest scores in this audit were awarded to the core cities: Gdańsk, Gdynia, and Sopot. The weighted average score for the OMGGS was 2.18, placing the metropolis at the second level of cycling policy quality (OMGGS 2017). This level is characterized by the collection and analysis of data on cycling policy, although the data is incomplete and insufficient for long-term planning. It includes a definition of a general vision for cycling development, albeit in a fragmentary and ad hoc manner. Additionally, decisions on cycling policy are not consulted with other departments and local governments, leading to emerging difficulties in building long-term alliances.

The Mevo system envisaged the purchase of 3,800 fourth-generation bicycles equipped with GPS modules and electric locks, with a minimum of 10 percent of the fleet consisting of electric-assisted bicycles. This decision was justified by the terrain and the need to adapt the vehicles to the needs of older individuals. The tender resulted in the selection of the operator NB Tricity – a subsidiary of Nextbike Poland – with whom a contract was concluded for the provision of 4,100 electrically assisted bicycles and 660 dedicated bicycle stations. The contract was established for a period of 6.5 years at a cost of almost €9.4 million. The system operates year-round, although it was anticipated that the bike fleet would be reduced during the winter months. In 2018, the project entered the implementation phase, but with significant delays. However, the project ended in the same

year after only 7 months of operation, with the official reason being difficulties faced by the operator in managing the bike fleet.

However, the reasons for the failure of the implementation include, first and foremost, an excessive number of e-bikes and the operator's lack of experience with their charging and distribution (Suchanek et al. 2021). Consequently, there were issues with vehicle supply, which discouraged potential users. Despite the development of cycling policies and the strong alliance among the OMGGS cities, the Mevo system ultimately failed as a local government initiative.

The operation of the Mevo 2.0 system compared to other Polish urban bicycle systems

At the end of 2019, Gdańsk City Hall launched a consultation with residents regarding the new version of the Mevo system, employing the so-called World Cafe method. The most significant conclusion from the consultation was that residents were generally satisfied with the system, but they expressed concerns about the complicated fare structure and the strict contractual provisions between local authorities and the operator at the time (OMGGS 2019).

The new version of the system involves the purchase of 4,100 bicycles, 25% of which are conventional. Additionally, it was decided to decentralize the deployment of battery charging systems, which will positively impact fleet management. However, the most significant change was the modification of the contract's subject. In the original version of the Mevo system, the contract focused on the provision of bicycles, whereas in Mevo 2.0, it centers on a service, with the operator being compensated for each month of the system's proper operation. During the tender process, the operator City Bike Global SA was selected, with the Italian company Vaimoo serving as the subcontractor responsible for supplying the vehicles. The tariff structure has also been revised (Table 2).

Table 2. Comparison of Mevo and Mevo 2.0 tariffs (prices in EUR based on the exchange rate as of 2.09.2024)

System / Subscription	Mevo	Mevo 2.0	Modification
Annual subscription	23.40	60.60	↑ 159.0%
Annual subscription plus	35.20	–	–
Monthly subscription	2.30	7.00	↑ 204.3%
5-day subscription	9.40	–	–
5-day subscription plus	18.80	–	–
48-hour subscription	4.70	14.00	↑ 197.9%
48-hour subscription plus	9.40	–	–
Pay-as-you-go tariff	0.02/1 minute	0.04/1 minute or 0.07/1 minute for e-bikes	↑ 100% or 250%

Source: Dziennik Bałtycki (2019), rowermevo.pl (2024).

The overly complicated tariff could have been one of the reasons for the potentially lower interest in Mevo (Bieliński et al. 2019). At the same time, Suchanek et al. (2021) indicated that cost is not the most important factor determining the use of the Mevo system.

Currently, Mevo 2.0 offers users 4,200 bicycles, making it the second-largest BSS in Poland. In the first two weeks of operation, over 19,000 trips were recorded, with an average travel time of nearly 20 minutes (gdańsk.pl 2024). Most trips occur during the week, suggesting that users are primarily commuters going to work or school. The highest number of stations is located in central districts, where there are large residential areas and business centers. There is still a lack of stations in peripheral districts with predominantly residential and agricultural functions.

Strategic benchmarking of BSS

75% of BSSs in Poland are operated by Nextbike Poland and Roovee, accounting for 34% and 42% of the market share, respectively. Bolt, which provides free-floating systems, has also increased its market share. Among the cities analyzed, 24.1% are small cities with up to 20,000 inhabitants, almost 47% are medium-sized cities with up to 100,000 inhabitants, and large cities and agglomerations with more than 100,000 inhabitants account for 31.1% of all cities analyzed. With 1.6 million inhabitants, OMGGS ranks 3rd in terms of population.

Analyzing the three main attributes in the overall and most common assessment of BSSs – namely, the number of available bikes, the length of cycle paths, and the number of parking stations in absolute terms – OMGGS ranks 1st, 2nd, and 2nd, respectively, among the 59 cities with BSSs considered (Fig. 4).

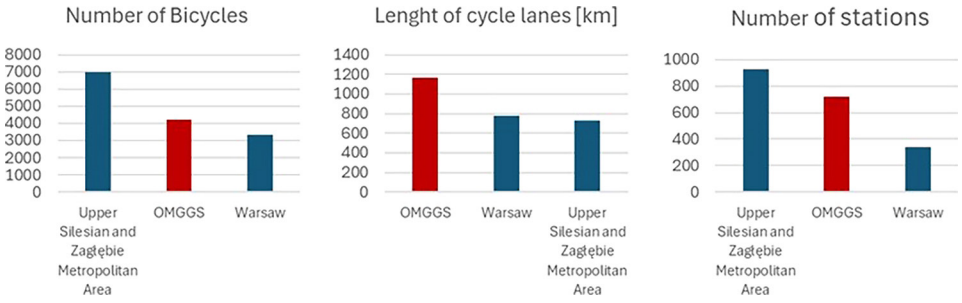

Fig. 4. Leaders within variables: number of bikes, number of stations, length of cycle lanes [km]
Source: own elaboration.

The Upper Silesian and Zagłębie Metropolitan Area (US&ZMA) ranks 1st in terms of the number of bikes and stations, while taking 3rd place in terms of the length of cycle routes. Warsaw, the capital city, ranks 3rd in the number of bikes and stations, while securing 2nd place in the category of cycle path length. The development of the transport network depends primarily on financial resources.

The analysis showed that the length of cycling routes is greater in large cities and agglomerations, but when this value is converted per 1,000 inhabitants or averaged per 10 km² of area, small and medium-sized cities show higher results. In terms of cycle route length, OMGGS ranked 1st with 1,165.5 km of routes in 2023.

The ranking positions of the aforementioned leaders (in absolute values) appear significantly worse when relative values are considered. When considering the number of bikes per 1,000 inhabitants, the top three positions are occupied by Pielgrzymka, Chodziez, and Łomża, whereas the leaders in terms of absolute values (total number of bikes in the BSS) are: 49th – US&ZMA, 38th – OMGGS, and 25th – Warsaw. When ranking based on the number of BSS stations per 10 km², the leaders are Pobiedziska, Chodziez, and Grodzisk Mazowiecki. Meanwhile, the cities that ranked highest in absolute terms are now positioned as follows: 49th – OMGGS, 12th – Warsaw, and 29th – US&ZMA.

Finally, an analysis of the length of cycle routes per 10 km² shows that the top three positions are held by Wolsztyn, Szamotuly, and Piaseczno. The previous leaders in absolute terms have now significantly changed positions: 54th – OMGGS, 15th – Warsaw, and 51st – US&ZMA.

When analyzing the development of BSSs, it is important to consider both absolute values and those related to the number of people or the area to be served by the BSS (relative values of the variables). Smaller cities often face the challenge of insufficient funding for developing a transport system, including cycling infrastructure. However, due to their typically smaller areas compared to agglomerations or large cities, and their smaller populations, they can ensure adequate accessibility for their inhabitants faster, even with fewer bikes, BSS stations, and a less developed network of cycling paths. For cities or agglomerations with large populations or vast areas, achieving higher results is more difficult. In OMGGS, there are 2.57 bicycles per 1,000 inhabitants, 1.3 Mevo 2.0 stations, and 2.12 km of cycle paths per 10 km².

The largest number of BSSs operates in Cracow, with 3, followed by Bydgoszcz, which has 2. The remaining cities each have only 1 scheme, with Poznan – classified as a conurbation – having only the private operator Bolt. Dock-based BSSs and dockless hubs dominate, which is linked to the use of new technologies. P+R (Park and Ride) car parks are found only in Cracow and Warsaw, with 4 and 38, respectively. A few cities also have bikes adapted for people with disabilities. Pszczyna, Starachowice, Wolsztyn, and Wroclaw, which is the only agglomeration in this group, provide such bikes. The number of stations per 10 km² depends on the type of system, and in this respect, OMGGS ranks 49th. In contrast, small and medium-sized cities, which tend to use dock-based systems and cover smaller areas, dominate this category.

In terms of the number of bikes per 1,000 inhabitants, OMGGS ranks 20th, while the largest system in Poland, operating in the US&ZMA, ranks 10th. The top 10 cities are primarily small and medium-sized towns, usually with high tourist potential. Analyzing the ranking positions regarding the number of bikes, the top three positions are occupied by Wroclaw, the US&ZMA, and Chodziez,

with the first two classified as agglomerations and the third as a small city. Chodziez owes its high ranking to the disproportionate number of bikes and BSS stations compared to other cities, which, combined with its small size and population, resulted in a high score. In the index defined by the authors as BS schemes, OMGGS, along with the medium-sized city of Wagrowiec, occupied 11 of the 51 positions.

Large cities and agglomerations have more flexibility in fare formation; however, among the top 10 cities in this area, the first three ranking positions are occupied by a total of 31 cities, predominantly small and medium-sized cities, which most often offer free travel (22 out of 31 cities in the top three positions). Among the leaders, only the two agglomerations of Lodzkie agglomeration and Cracow stand out. In terms of cost-effectiveness, OMGGS ranked 13th out of 19, with Poznań in 18th place, Szczecin in 12th place, and Warsaw in 10th place. However, the Mevo 2.0 system does not offer discounts for residents with a Resident Card, which may have contributed to its low ranking. Such discounts are provided by BSSs operating in Slupsk, Koszalin, and Kolobrzeg, which are medium-sized cities.

For the integration category, the sole component is the number of transport modes available to BSS users. A total of nine options have been defined: rail, bus, tram, trolleybus, metro, electric scooters, scooters, carsharing, and city bikes. Agglomerations and large cities, often characterized by a larger area and a greater number of users of the urban transport system, can generally offer a wide range of transport services. This provides them with many alternatives, which is an advantage over most medium-sized or small cities. The leaders in this category, with a score of 7 possible transport modes, are Warsaw and OMGGS. In second place, with a score of 6 means of transport, are Tarnow, Lublin, Bydgoszcz, the Łodz agglomeration, Legionowo, Cracow, Torun, Wrocław, Szczecin, Poznan, and Olsztyn, of which only Legionowo and Olsztyn are classified as medium-sized cities in this study. A total of 19 cities ranked third with a score of five, including Szamotuly as the only small city among the top three and the US&ZMA as the only city classified as an agglomeration and ranked third. Therefore, OMGGS is one of the leaders in this element of the indicator.

Similarly, in the case of the cycling policy category, large cities and agglomerations have an advantage over small and medium towns in creating documents and policies. This requires additional financial and human resources, which may pose a challenge for smaller centers. There are a total of 12 leaders in this category: Lublin, Bydgoszcz, the Łodz agglomeration, Torun, Wroclaw, Olsztyn, Koszalin, Kielce, Konin, Nowy Dwor Mazowiecki, the US&ZMA, and Grodzisk Mazowiecki. In this category, OMGGS ranked 2nd, alongside Warsaw, Kraków, Szczecin, Poznan, and Slupsk, which is the only medium-sized city in such a high position in the analyzed criterion. Additionally, 27% of the analyzed cities in the small and medium category do not have a SUMP document. Conversely, 70% of cities do not have any cycling policy or strategy in force.

The total value of an indicator is the arithmetic mean of its six components previously analysed.

The values for all cities analyzed in the study range from 3.86 to 17.24 (see Figure 5). The top three positions are held by Warsaw (17.24), Wroclaw (16.93), and Bialystok (15.58). OMGGS achieved a final value of 10.74, placing the agglomeration in 28th place among the 59 cities analyzed. The top 10 rankings include two agglomerations (Wroclaw and Warsaw), three large cities (Torun, Lublin, and Bialystok), three medium-sized cities (Piaseczno, Grodzisk Mazowiecki, and Pruszkow), and two small cities (Szamotuly and Wolsztyn). The relatively low position of the OMGGS agglomeration is mainly due to the large area and population served by the BSS.

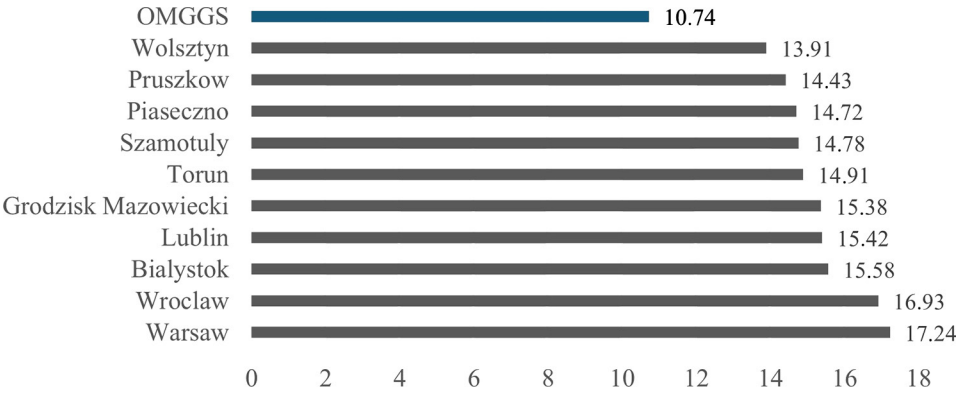

Fig. 5. The top 10 cities are ranked as the arithmetic average of all six categories
Source: own elaboration.

Conclusion

The main factors conditioning the overall effectiveness of the functioning and implementation of BSS within a city are the population size and the area that the system is expected to cover. A larger population implies greater needs regarding the number of bikes and stations, which should also increase in relation to the area that the BSS is intended to serve. Variables that have a significant impact include linear infrastructure such as bike paths and paved roads, whose length, and consequently, density, must similarly increase with the area.

Another crucial element affecting the success of BSS implementation is the organizational and legal conditions. A city with a suitable strategy for managing the transport system or a cycling policy, or one that offers a large number of alternative transport modes within the system, will be more effectively able to integrate the BSS into its transport network. The cost-effectiveness of the system from the user's perspective also has a significant impact. Affordable prices or promotions can encourage users to utilize BSS in their daily journeys, which in turn contributes to the system's development.

Based on the research findings, large cities and agglomerations do not have a significant advantage in creating or servicing an existing BSS compared to

medium or small cities. The challenges they face, such as a large population or extensive area, can hinder the system's operational efficiency. Of course, the population size is not solely a negative criterion; its number influences the fundamental decision of whether to implement the system at all. However, the authors believe that it should not be a key factor in decision-making.

The research results indicate that some small or medium-sized cities (5 out of the top 10 positions in the ranking) that have opted to implement such a system can be positively evaluated based on indicator analysis and may even find it easier to achieve a high score in such assessments. Consequently, they are likely to implement, maintain, or develop a well-functioning BBS more effectively.

Conflict of interest / authors' input

The authors declare that they have no conflict of interest and assures that the work is the result of their own creation. The division of work on the article was as follows:

- Conceptualisation: BCh,
- Methodology: BCh, PW,
- Research organisation: BCh,
- Formal analysis: BCh, PW,
- Writing: BCh, PW, KD.

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Czynniki sukcesu wdrażania systemów rowerów miejskich: wnioski z implementacji systemu Mevo 2.0 w metropolii OMGGS w Polsce

Zarys treści: W artykule przeanalizowano kluczowe czynniki sukcesu i bariery rozwoju systemów rowerów publicznych (BSS) w miastach. Wykorzystano metodę studium przypadku systemu Mevo 2.0 w aglomeracji Gdańsk–Gdynia–Sopot oraz benchmarking strategiczny, w którym porównano Mevo

2.0 z BSS operującymi w polskich miastach (N = 63). Analiza wykazała, że duże miasta borykają się z wyzwaniami związanymi z ograniczeniami finansowymi i planowaniem przestrzennym, podczas gdy średniej wielkości miasta osiągają lepsze wyniki w zakresie funkcjonowania systemów BSS. Zbyt duża liczba systemów BSS może prowadzić do problemów komunikacyjnych i nadmiernej podaży. Dlatego władze miejskie powinny priorytetowo traktować udział społeczeństwa, inwestycje infrastrukturalne i planowanie przestrzenne w celu zwiększenia efektywności systemów BSS.

Słowa kluczowe: mobilność aktywna, rowery miejskie, transport miejski, polityka transportowa, benchmarking

Data przekazania tekstu: 12.11.2025; data zaakceptowania tekstu: 12.05.2026.
Article submitted: 12.11.2025; article accepted: 12.05.2026.

Appendix. BSS operating in Poland

City	City size category	BSS name	Operator	Number of bicycles	Number of stations
Szczecin	3	BikeS City Bike Hire	Roovee, Real Estate and Local Taxes Ltd.	800 85	Not available
Kolobrzeg	2	Kolobrzeg Urban Bike	Nextbike	125	12
Koszalin	3	Koszalin Urban Bike	Nextbike	170	20
Slupsk	2	Slupsk Urban Bike	Roovee	100	20
OMGGS	4	Mevo 2.0	City Bike Global	4200	717
Olsztyn	2	Bolt	Bolt	170	Free floating
Suwalki	2	Suwer	Roovee	160	17
Bialystok	3	BiKeR	Nextbike	634	63
Lomza	1	LoKeR	Nextbike	130	
Ostroleka	2	OstroBike	Roovee	64	15
Ciechanow	2	Ciechanow Urban Bike	Nextbike	50	9
Plock	3	Plock Urban Bike	Roovee	290	29
Torun	3	Torvelo	BikeU	400	73
Bydgoszcz	3	Bydgoszcz Agglomeration Bike, Bolt	BikeU, Bolt	389 Not available	62 Free floating
Naklo nad Notecia	1	Naklo nad Notecia Urban Bike	Roovee	50	10
Chodziez	1	Chromek. Chodziez Urban Bike	Roovee	133	21
Wagrowiec	2	Wagrowiec Urban Bike	Roovee	70	17
Szamotuly	1	Szamotuly Bike	Nextbike	50	7
Suchy Las	1	Suchy Las Urban Bike	Roovee	10	5
Poznan	4	Bolt	Bolt	Not available	Free floating
Pobiedziska	1	Pobiedziska Urban Bike	Nextbike	18	24
Gniezno	2	Gniezno Urban Bike	Roovee	139	16
Srem	2	Srem Urban Bike	Roovee	30	10
Wolsztyn	1	Wolsztyn Urban Bike	Nextbike	24	3

City	City size category	BSS name	Operator	Number of bicycles	Number of stations
Zielona Gora	3	Zielona Gora Urban Bike	Roovee	385	42
Polkowice	2	Szprychy. Polkowice Urban Bike	Roovee	70	26
Scinawa	1	SRM	Roovee	30	5
Pielgrzymka	1	Pielgrzymka District Bike	Nextbike	250	25
Duszniki-Zdroj	1	MTB Electric Duszniki Zdroj	Roovee	15	Free floating
Wroclaw	4	Wroclaw Urban Bike	Nextbike	2434	225
Olesnica	1	OL Bike	Roovee	58	8
Krotoszyn	2	Krotower	Roovee	50	8
Konin	2	Konin Urban Bike	Nextbike	100	12
Ostrow Wielkopolski	2	Ostrow Urban Bike	Nextbike	103	11
Lodzkie agglomeration	4	Regional Public Bike System	Nextbike	1002	125
Jastrzebie Zdroj	2	Jaskolka. Jastrzebie Zdroj Urban Bike	Nextbike	104	29
Pszczyna	2	Pszczyna Urban Bike	Nextbike	88	8
Upper Silesian and Zagłębie Metropolitan Area	4	Metrorower	Nextbike	7000	924
Czestochowa	3	Czestochowa Urban Bike	Nextbike	240	26
Zyrardow	2	Zyrardow Urban Bike	Nextbike	70	10
Grodzisk Mazowiecki	2	Grodzisk Urban Bike	Nextbike	92	16
Nowy Dwór Mazowiecki	2	NDMka	Roovee	80	12
Legionowo	2	Legionowo City Bike	Acro Bike	61	10
Pruszkow	2	Pruszkow Urban Bike	Nextbike	93	15
Otwock	2	Otwock Urban Bike	Nextbike	70	10
Warsaw	4	Veturilo 3.0	Nextbike	3354	339
Jozefow	2	Veloyou	Nextbike	35	8
Piaseczno	2	Piaseczno Urban Bike	Nextbike	64	7
Sokolow Podlaski	1	District Cycling System	Nextbike	36	6
Naleczow	1	Naleczow Urban Bike	Naleczow City Council	20	4
Lublin	3	Lublin City Bike	MPK Lublin	625	131
Skarzysko Kamienna	2	RMS. Skarzysko-Kamienna City Bike	Roovee	75	5
Kielce	3	Kielce City Bike	Roovee	300	57
Starachowice	2	StarBike	Roovee	90	13
Stalowa Wola	2	Stalowa Wola City of Bikes	Roovee	150	15

City	City size category	BSS name	Operator	Number of bicycles	Number of stations
Pinczow	1	Pinczow City Bike	Pinczow City Council	20	2
Cracow	4	LajkBike, Park-a-Bike, Bolt	Public Transport Authority, Bolt	1000 80 100	4 Free floating Free floating
Tarnow	3	Tarnow City Bike	Nextbike	170	16
Chelm	2	Chelm's bike	Nextbike	180	17