Boston University

MET AD642S

Project Management Spring 2025
Assignment 1



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Executive Summary:

The New York City Department of Transportation (NYC DOT) launched the Citi Bike program in 2013 to promote sustainable, accessible transportation across the city. As the largest bike-share initiative in the U.S., this project aligned directly with NYC DOT's mission of improving mobility and safety while reducing congestion and environmental impact. The Citi Bike program has since grown to serve millions of riders annually, helping to reduce car use and emissions. The project demonstrates how thoughtful urban mobility planning can support long-term city goals, create economic value, and deliver measurable returns through cost savings, usage revenue, and environmental benefits (NYC DOT, 2020).

Description- The Citi Bike Launch:

The Citi Bike project was launched in May 2013 as a public-private partnership between NYC DOT and Alta Bicycle Share (later acquired by Motivate, now operated by Lyft). It began with 6,000 bikes and 332 stations across Manhattan and parts of Brooklyn. The primary objectives were to reduce vehicle traffic and emissions, promote healthier, active lifestyles, and provide an affordable and efficient transit option.

Initial investment came from private funding and sponsorship (notably from Citigroup and Mastercard), totaling \$41 million, with no public subsidy (Motivate, 2019). The stations are solar-powered and connected via wireless networks for real-time bike tracking and availability.

By 2020, Citi Bike had over 130,000 annual members, nearly 20,000 bikes at over 1,300 stations, and had supported more than 100 million rides since launch (Lyft, 2020).

Connection to NYC DOT's Mission, Vision, and Values:

NYC DOT Mission:

"To provide for the safe, efficient, and environmentally responsible movement of people and goods."

Citi Bike aligns directly with NYC DOT's mission:

- It **promotes efficient movement** by easing congestion in overburdened subway and bus systems.
- It **enhances environmental responsibility** by reducing car reliance, leading to lower carbon emissions.
- It improves **public safety and health** by encouraging active transportation.

Vision & Values:

The NYC DOT envisions a "livable city with a safe and sustainable transportation system." Citi Bike supports this vision by:

- Encouraging equitable access to transportation
- Supporting sustainability
- Empowering communities with better **first-mile/last-mile** solutions
- Engaging with underserved neighborhoods in later phases (e.g., Bronx and Queens expansions)

The values of **innovation, inclusion, and public service** are reflected in Citi Bike's expansion-related open data policies and community outreach efforts.

Overall, NYC DOT's mission is to provide for the safe, efficient, and environmentally responsible movement of people and goods. Citi Bike aligns directly with this mission by promoting efficient movement, enhancing environmental responsibility, and improving public safety and health. The program reflects NYC DOT's values of innovation, inclusion, and public service (NYC DOT, 2020).

Financial And Strategic Justifications:

While the program avoided direct taxpayer cost in its initial phase, its financial benefits are significant:

- 1. Payback Period: Citi Bike broke even operationally within 3–4 years, generating revenue through memberships, single trip passes, and sponsorships. Citibank extended a \$70M deal through 2024 (Forbes, 2019).
- 2. Cost Savings: Citi Bike helps NYC save millions by reducing vehicle miles traveled, lowering CO₂ emissions, and reducing healthcare costs from improved fitness (Urban Institute, 2017).

- 3. Economic Impact: The NYC Economic Development Corporation reported increased foot traffic and sales near bike stations and job creation across various roles.
- 4. Intangible Returns: Benefits include increased transportation equity, improved air quality, and better transit connectivity.

Financial Overview Table:

Item	Year 1 (2013)	Year 5 (2018)	Year 10 (2023)
Annual Revenue	\$9M	\$23M	\$45M
Annual Operating Cost	\$8M	\$18M	\$35M
Net Surplus	\$1M	\$5M	\$10M

It is important to note, while detailed NPV and IRR figures are not publicly available due to the program's structure as a public-private partnership with private funding and sponsorship, financial sustainability has been demonstrated by the program's ability to reach operational breakeven within 3–4 years. Further, the extended \$70M Citibank sponsorship and increased annual ridership confirm continued positive cash flow, indicating a likely positive NPV and acceptable IRR had full internal financial data been disclosed.

Estimate NPV Using Simplified Assumptions:

Based on the following assumptions:

Initial investment: \$41 millionProject duration: 10 years

• Discount rate: 10%.

• Annual net cash inflows increasing from \$1 million to \$10 million

Estimated NPV = -\$11.96 million

Interpretation:

This **negative NPV** suggests the project wouldn't be considered financially viable **strictly** from a private investment perspective **under these assumptions**.

However:

- This calculation **does not** include **intangible benefits** like:
 - o CO₂ reduction
 - Health cost savings
 - o Public goodwill
 - Increased retail activity near stations
- In reality, the project is **not purely profit-driven** it serves public value and aligns with **NYC DOT's mission**.

Conclusion:

The Citi Bike project demonstrates the value of aligning urban mobility initiatives with broader governmental goals. Through strategic partnerships, it fulfilled NYC DOT's mission, yielded financial and social benefits, and has become a model for other cities globally. The Citi Bike project is a successful case study in how urban infrastructure can serve strategic city goals while offering strong returns in both economic and social terms. Through a carefully structured partnership model, the NYC DOT advanced its mission without public subsidy, delivering real results in sustainability, public health, and access to transportation. Its continued growth, expansions, and positive reception make Citi Bike a model for other cities globally aiming to modernize transit while embracing environmentally conscious values.

References:

- Forbes. (2019). *Citi Bike Expansion and Sponsorship Deal*. Retrieved from https://www.forbes.com
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- Motivate. (2019). *A Decade of Bike Share in NYC*. Retrieved from https://www.motivateco.com
- NYC DOT. (2020). *Mission and Vision*. Retrieved from https://www.nyc.gov/html/dot/html/about/about.shtml
- Urban Institute. (2017). Evaluating the Social Benefits of Bike Sharing Programs.

Appendix:

Appendix A (Financial Overview And NVP Estimate):

Item	Value		
Initial Investment	\$41,000,000		
Discount Rate	10%		
Cash Inflows (Years 1–10)	\$1M increasing to \$10M		
Estimated NPV	_\$11.96 million		
Interpretation	Negative due to large upfront costs; excludes social/environmental returns		

Appendix B (Key Performance Metrics 2013-2023):

Metric	2013	2018	2023
Annual Ridership (millions)	3.1	17.7	30+

Metric	2013	2018	2023
Number of Bikes	6,000	12,000	20,000+
Stations	332	850	1,300+
Annual Revenue (est.)	\$9M	\$23M	\$45M+

Appendix C (Sponsorship Timeline):

Sponsor	Contribution	Timeframe
Citibank	\$41M (initial)	2013–2019
Citibank	\$70M (renewal)	2020–2024
Mastercard	\$6.5M (initial)	2013–2018