

# Chapter 16

## Improving Bikesharing Service Quality: A Case Study for BIXI Montreal

**Lakshmi Suvarchla Yalavarthi**  
Concordia University, Canada

### ABSTRACT

*Bike sharing is a typically structured non-motorized transportation service that provides users point-to-point transportation. The services are flexible to users as they do not have to wait in a line to pick up a bicycle from any bike sharing system and can return it to any other location of the bike sharing system. This chapter mainly focuses on why it is important to use bike sharing transportation rather than any other mode of transportation. In this chapter, the authors address the customer satisfaction level and focus on the service quality of the bike sharing system BIXI in Montreal. A questionnaire survey is conducted with the users of BIXI. A total of 580 responses are collected. Descriptive statistics, complaint analysis, and data analysis are done to identify areas of improvement.*

### INTRODUCTION

Public transportation is always a vital part of the economy since it also has to implement environmental protection plans for energy conservation and to achieve the long term objective of sustainable development. With the increasing population in any country, the need for transportation also increases and considering the facts to create an eco-friendly mode of transportation is critical and never-ending. Over the past years, there have been several studies on environmental protection plans and how transportation being one of them to support the environment in any possible by reducing the pollution caused by it. Bicycle-friendly towns are a common concept proposed by many countries but are only followed by some of the countries. Moreover, almost 50 countries in five continents have the public bike share systems by June 2014 (Thompson, n.d.).

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Bike sharing is a typically structured non-motorized transportation service that provides users point-to-point transportation. The services are flexible to users as they do not have to wait in a line to pick up a bicycle from any bike sharing system and can return it any other location of the bike sharing system. Generally, the bike sharing system is structured in a way that has a customer kiosk and a dock station that has bicycles. Every dock station has a limited number of bicycles that it can hold. A docking station is a place where a bicycle can be parked and locked until the popup sound can be heard by the user. The customer kiosk is an electronic terminal where the user can read all the rental instructions, payment options, and other options. Usage fees or membership details are provided on the online portal and the additional charges costs are also given.

Montreal is one of the cold cities in Canada that started the concept of bike sharing. Bike Sharing was introduced by Public Bike System Company (PBSC) in May 2009 (Wikipedia, 2019b). Even though it was not a big success in the starting period eventually it picked up later and is one of the large-scale companies in North America. When it was started, there were a lot of thefts and the service quality provided by PBSC was not good.

Bike sharing systems are mainly carried out by two organizations: Local community or non-profit organizations and Government organizations. The main idea of these systems is providing bikes at affordable prices and free access on special occasions to reduce traffic congestion in the city and contributing to keeping the cities green and healthy.

Some reasons for using bike sharing systems by people are theft, vandalism, parking issues, maintenance requirements and ease of access. For some countries, with the advancement of technology, the issue missing out is reducing pollution and having such bike sharing systems not only help in reducing the pollution but at the same time, it is less crowded in other modes of transportation as well.

BIXI originally came from combining bicycle and taxi. It was founded by Michel Gourneau following a contest asking Montrealers to help identify the bike. By the end of the year 2013, PBSC faced a huge loss and went bankrupt after which it was undertaken by the city of Montreal in the year 2014, therefore the name changed to BIXI Montreal. It is a non-profit organization.

The BIXI network has 540 stations and 6250 bikes across the city of Montreal, Longueuil and Westmount (These numbers are taken from links provided in the references). Furthermore, there has been a success rate in the past year 2017 compared to previous years. It runs 24/7 making it available at any time of the day. It runs from April 15 through November 15 and has different promotional offers every time of each year. BIXI online website can also be accessed by anyone to get more information. They also have a BIXI app which is compatible with all the smartphones mostly. BIXI offers monthly payments, one day access and mostly the docking station systems are available in different languages.

This paper is mainly focused on customer satisfaction and quality standards including the reasons why it is better than other modes of transportation. This paper consists of a literature review of BIXI, Montreal and then is with a different bike sharing system in Brisbane, Australia. Secondly, Conclusion and future works are discussed.

## **EVALUATION OF SERVICE QUALITY**

The quality evaluation of products and services is an important parameter for any company for the betterment of their products or services and aiming for customer satisfaction. The quality of goods is measurable objectively with the help of a total number of defective goods and their durability. But the

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