2. OBJECTIVES

The first objective of this study is to describe urban and socioeconomic characteristics of the cities of Chicago and Barcelona that affect the urban bus network system. The second objective is to evaluate the current bus network configuration and procure a set of applicable measures that would improve the operation efficiency and profitability of the bus service.

Operation efficiency and profitability of the bus service offered are strongly related to parameters such as stop spacing and line spacing. These parameters determine the total travel time for the passengers, as well as the costs for the operator. For instance, a bus network configuration that had high values for both stop spacing and line spacing would be profitable for the operator, but not for the users, who would have excessively high access times to the network.

It is in order to fulfill the second objective of this study that the social profitability of the network will be considered as the target to improve and optimize, instead of the operator’s or user’s profitability alone. Moreover, improving the social profitability of the network ensures that the quality of the service offered will be subsequently improved.