ABSTRACT

The present study have as main objective to obtain a methodology for the evaluation of the mobility costs in the public transport, that allows of a simple form to be applied periodically, specifically in the city of Medellín (Colombia), and that tries to valuate economically the maximum number of direct and indirect operational and temporary parameters and some externalities.

The study does not create new methodologies, but joint experiences and investigations, most of them are of the Ministerio de Obras Públicas de España (MOPU) or different European studies like the INFRAS/IWW.

In first instance, all the costs originated by the displacement in public transport were included. The operation direct costs (fuel, lubricant, pneumatic, parking, maintenance, personnel, tolls, fines), the operation indirect costs (property, insurances, investments), the time cost considering its components (access, destination, route, on costs by congestion) and some external costs (accidents, noise and atmospheric contamination).

Later, the found methodologies were considered to valuate economically all the described costs. And finally, the application from these procedures to the city of Medellín (Colombia) was made, considering the considerations of the case. In this application, initially the physical characteristics of the territory and the behavior of their inhabitants at the time of making a trip were analyzed, and finally the costs of mobility in the public transport were calculated.