Development of a methodology to evaluate a local busnetwork (especially the city of Enschede) on quality and costs

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The deregulation in public transport demands an instrumentary that can compare fast and clear alternative public transport networks. In the research a methodology is evolved to evaluate a local busnetwork on quality and costs. The methodology is applied on the city of Enschede to evaluate both the development of the bus network in the last years and some alternative adaptations of the network.

The purpose of the research:

To achieve some alternative public transport networks of Enschede with a higher level of quality for the traveller against the same costs or with less cost the same level of quality for the traveller.

Firstly, a pattern (view) with relation to public transport is introduced to achieve above goals. This model represents the elements and the relations between these elements that have an interest in the level of quality and costs. The level of quality for travellers is represented by the quality-index. The quality-index is the mean quality of transport for all public transport users and is defined by the mean subjective travel speed of all OD-relations (all travel-times are weighted by experience).

Secondly, the results of measures in other cities (Apeldoorn, Dordrecht, Almere) and research of busnetworks in medium-sized cities is evaluated.

Thirdly, an analyse is executed to obtain a clear insight into the busnetwork (1998-2000) of Enschede. It can be concluded that in the last years the busnetwork of Enschede has improved (higher quality-index) by the same costs. In spite of the improvement of the quality-index in the last years, a further improvement is possible (less travel- or waiting-times, efficiency-improvement).