METHODOLOGICAL APPROACHES TO THE FORMATION OF EFFECTIVE PASSENGER TRANSPORT SYSTEMS

Andrei Korolev
Candidate of Economic Sciences, Associate Professor.
General Director,
Belarusian Research Institute of Transport «TRANSTEKHNIIKA»
Minsk, Republic of Belarus

Ashgabat, 27 November 2016
Problem: low payback of passenger transportation

Problem: decrease in volumes of passenger transportation

Problem: the aging of the vehicle fleet

The root causes
INTERESTS OF THE STATE

INTERESTS OF THE CARRIER

POPULATION INTERESTS
Passenger transport as a system

Services flows

Customer → Operator → Carrier → Consumer

Information's flows

Cash flows
Targets of interest groups

Customer

Carrier

Operator

Consumer

PRICE – COSTS

RELIABILITY – SAFETY

QUALITY – ECOLOGY

STANDARDS, BALANCE, LOGISTICS

QUALITY – ECOLOGY

PROFIT MARKET SHARE

LACK OF COMPLAINTS

TRAVEL AND WAITING TIME
METODOLOGY OF EFFECTIVE FUNCTIONING AND DEVELOPMENT OF PASSENGER TRANSPORT

- agreed policy
- barriers detection
- segmentation
- division of responsibilities of all sides
- the most effective management technology
- targeted services
- the systemic infrastructure improvement
- improvement of traffic management systems
- the integrating information portal
The effectiveness of the regional passenger transport system
Process view of the passenger transportation

External factors influencing the passengers transportation process:

- transport infrastructure, uniformity of movement, automatization level;
- Vehicle, their technical condition.
# Application of classification

<table>
<thead>
<tr>
<th>The classifying parameters</th>
<th>Estimation of the dominant features</th>
<th>Parameter estimation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Feature 1</td>
<td>Feature 2</td>
</tr>
<tr>
<td>Parameter 1</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Parameter 2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Parameter 3</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Parameter 4</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Parameter 5</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Parameter 6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Parameter 7</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Parameter 8</td>
<td>9</td>
<td>6</td>
</tr>
</tbody>
</table>

The line of colors

<table>
<thead>
<tr>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>
Areas for further researches

- Development of perspective directions of related services in the field of passenger transport to increase population mobility and passenger satisfaction
- Development of passenger transport services consumers segmentation systems to enhance the attractiveness of public transport and to optimize the transport work measurement parameters
- Development of normative legal acts. Rules of subjects interaction development
- Research the causes of the loss in traffic and the development of proposals to reduce their impact on the effectiveness of passenger transport
- Development of personnel management system that provides a constant growth of efficiency of its operations
- Development of financial flows management techniques that enhance the efficiency of passenger transportation on the basis of a process-oriented cost accounting system and revenue.
Thank you for your kind attention!

ANDREI KOROLEV

Phone: +375 17 331 65 46  
   +375 29 572 33 41

E-mail: tt.korolev@post.mtk.by  
Skype: andreikaralev