

WG 3 “Market Organisation – Integration and tariff systems”

Working Paper for the first WG Meeting in Barcelona 29th and 30th March 2007

Purpose and content of the working paper

Working Group 3 within SPUTNIC deals with “Market Organisation”. Within this framework four topics have been identified to be dealt with in four separate Workshops: cooperation within a competitive environment, integration and tariff systems, innovative financing solutions and monitoring/incentives.

Our first workshop taking place in Barcelona is dedicated to the topic “integration and tariff systems”. This includes all global aspects of integration: network integration, timetable integration, tariff and fare integration and service integration. A specific focus will be given to tariff and fare integration and measures.

This working paper serves as a discussion basis for the Barcelona workshop. It gives a short overview on the topic including problems and key challenges, important definitions, integration aspects. Especially addressed is the tariff and fare integration tariff and optimisation measures. The working paper does not cover all aspects of integration yet.

Problems and Key challenges

The PT market is undergoing essential changes. In particular in cities and regions undergoing rapid economic development, the market is in process of setting up an organisation that fundamentally differs from the past. These developments have an important impact and bring the need of both internal changes in PT organisations and a new kind of relations among PT actors and between PT actors and authorities as well.

Decreasing public resources for PT and lack of funds for investments and operation add to problems of low integration of PT in an overall mobility and transport planning, and between local and regional transport networks and services. Unclear division of responsibilities among PT actors, unstable or unclear regulatory setting, and frequent political interference also jeopardise the efforts of the sector to stabilise and consolidate. An often low quality level of PT is a result of low implementation of quality and performance monitoring and few incentives for PT operators to cut costs, increase revenues and level of quality.

In the market organisation model currently dominating the cities, regions and countries undergoing rapid economic development, all PT companies in an area or in a country are operated independently with their own responsibility for the “basic conditions”, such as routes, timetables and fares. This model makes collaboration and integration of services and tariff systems and public transport on the whole very difficult. There is little integration between local and regional (and national) transport network, timetables, tariffs and services. Traditionally everything to do with railways has been a state or central government matter (except for metros and some suburban railways.) whereas urban public transport (bus, tramway, subway) is organised and controlled by the local authorities which leads to disintegration of the two systems. It is still very common that a ticket or pass is valid for local travel from A to B by metro, tram and bus but not on the railway. There are even cities where you have different tariffs for different operators providing the same service on the same routes within the same area.

Therefore in various regions independent operators have formed Tariff Associations and Unions or have (in a second step) set up a Public Transport Organizing Authority (sometimes a.k.a.

transportation association), which is responsible for the integration of networks, timetables services, tariffs and services in a city, a metropolitan area or a specified region. These schemes have proved to be very successful in promoting Public Transport and increasing its market share.

However, apart from a very few examples tariff associations or integrated tariff systems do hardly exist in CEEC or are at a very infant stage which weakens the competitive position of public transport. Customers should be able to use all transport modes with one ticket in a very easy and transparent way. Therefore common tariff and ticketing systems are needed. Still, in many cases the necessary know-how to set up tariff or transportation union is missing.

As the customer buys the same ticket independent of which operator's services he uses, tariff associations always face the challenge of a fair distribution of the total revenues to each single operator. This has proven particularly difficult in the low trust environment which has been created in CEEC as a consequence of the unreliable political and economical framework conditions.

Independent of tariff agreements or tariff associations the existing fare systems in cities, regions and countries undergoing rapid economic development still offer a high potential for increasing revenues. Often the range of ticket types and their prices are not enough tailored to the needs and possibilities of different clusters of customers. By focusing on different target groups their different willingness to pay can be creamed off resulting in higher revenues.

Important definitions related to integration in public transport with focus on tariff and fare systems

see the glossary in the annex

Aspects of Integration in Public Transport

The integration of Public Transport (PT) is the crucial linchpin for its improvement and optimisation to attract more customers and advance the modal split for the benefit of PT.

Integration of PT combines several global aspects as Network integration, Timetable integration, Tariff and fare integration and Service integration as well.

Network integration: Basis for the network integration is a general PT planning which includes all PT transport modes in a respective area (conurbation or also wider area). The aim of the network integration is the equality of these transport modes. Every mode should act according to its strengths and advantages, e. g.:

- Light rail/ tramway/subway to move high numbers of passengers within conurbations
- Regional railway for speedy regional connections
- Bus services for area services to feed rail bound services
- Barge services addition of public services under specific circumstances

With the network integration it is possible to reduce parallel services and to connect several transport modes at interchanges with each other.

Timetable integration: Timetable integration goes hand in hand with network integration. To realise full network integration a co-ordinated timetable for all transport modes in a respective area is essential. The timetables of all operators have to be harmonised and tuned. For example the light rail lines could be the backbone of the system and all other PT lines have to feed it. The timetable system has to have predefined changing times at main interchanges to ensure the connections between the PT services.

Tariff and fare integration: Tariff and fare integration as part of all is essential for the customer's use of the PT system. Network and timetable integration makes no sense if the customer needs several tickets and tariffs for his trip depending on transport mode and operator. Only if the customer can use one ticket inside of a transparent and easy tariff and fare system he will use the PT system.

Service integration: Service integration is another column of the PT integration and attach on the kinds of integration mentioned above. Service integration is important for the customer satisfaction and includes things like overall passenger information, overall complaint management, overall ticketing system etc.

The PT integration could be summarised in this way: "One timetable, one ticket, one fare."

Policy and objectives for tariff measures

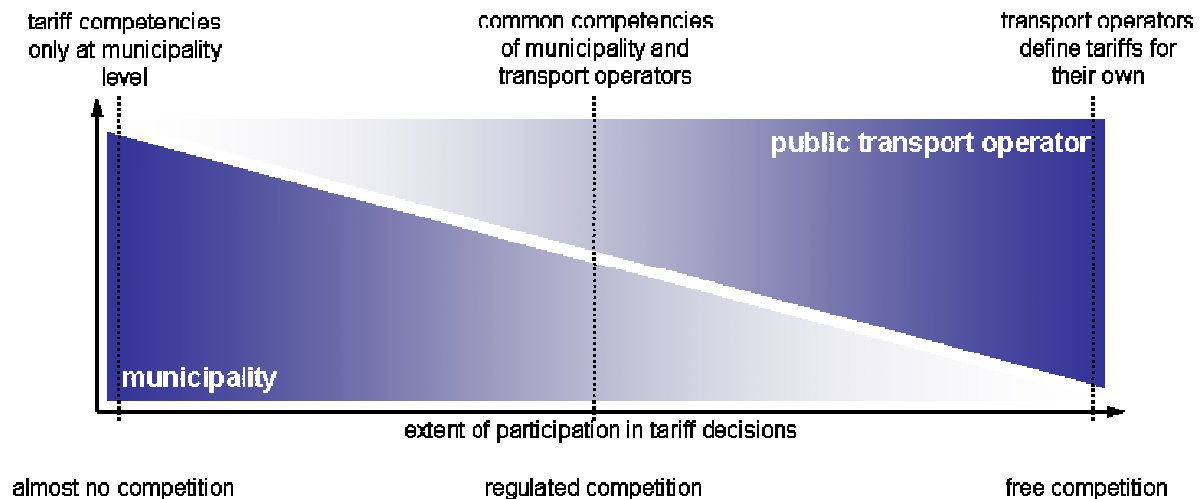
A tariff policy usually pursues different objectives and it is sometimes even difficult to state which is the main one. As the different objectives can be contradicting, there is usually a trade-off between competing policies such as revenue maximisation and social goals.

Main objectives of tariff policies include:

- harmonisation of different tariffs within an area
- maximisation of revenues (cost coverage)
- provision basic mobility for all citizens
- provision of cheap mobility for certain user groups (e.g. students, elderly people)
- improvement of modal split (minimize negative impacts of individual traffic)
- provision of a discriminating free revenue distribution

Actors and roles setting tariffs and planning tariff measures

- different models of participation in tariff decisions
- crucial is the involvement of partners in the process of planning tariff measures

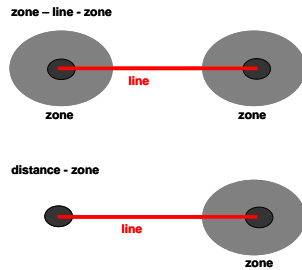


- depending on the competition in the PT sector
- different types of competition can be distinguished:
 - regulated competition: common decision making relating tariffs and fares
 - free competition: operators offer competitive services, tariffs are defined only by transport operators
 - almost no competition: government monopoly, tariffs decisions at municipality/government
- in the case that the authority has an influence on tariffs, there is also the question of compensation if the tariffs do not cover the costs (sometimes covered in national regulations)

Overview on tariff measures

The following tariff conflicts can be relevant:

- need of different tickets (by operator, route) from A to B due to missing tariff harmonisation
- No through ticketing (too high prices)
- Difference in tariff levels between operators
- Varieties in ticket sortment between operators
- Varieties in ticket scopes (time, age, etc.) between operators

measure	practice
<p>tariff harmonisation:</p> <ul style="list-style-type: none"> several tariffs of different operators in the same region have to be adapted and coordinated to create a transparent and easy tariff and fare system (one ticket for all) condition for the mutual acknowledgment 	<ul style="list-style-type: none"> mutual acknowledgment on corridors (lowest level of tariff integration) season pass tariff union, one monthly or yearly pass for all modes of public transport and all operators in the whole union area integrated tariff union, one ticket for all modes of public transport and all operators in the whole union area (passes, single and multitrip tickets, etc.) InterAbo, Switzerland monthly or yearly passes, which allows travelling on a line and in the zones at the ends (in one or both)  <p>The diagram shows two models of tariff integration. The top model, labeled 'zone - line - zone', depicts two overlapping grey circles representing 'zone' areas. A red horizontal line labeled 'line' connects the centers of these two zones. The bottom model, labeled 'distance - zone', shows a single grey circle representing a 'zone' on the right, with a red horizontal line labeled 'line' extending from its center to a small black dot on the left, representing a specific point or distance.</p>
<p>adaptation of ticket price level:</p> <ul style="list-style-type: none"> Price reduction for environmental or/and social reasons Price increases to reach a better cost coverage considering the willingness to pay Price reduction for high number of clients 	<ul style="list-style-type: none"> special tariffs for socially weak target groups, like handicapped or unemployed persons etc. PT user oriented price strategies (e.g. VDV Germany) Specific group tariffs Specific night tariffs (which covers the costs, several examples in Switzerland)
<p>adaptation of ticket assortment:</p> <ul style="list-style-type: none"> consideration of special user groups like guests, tourists, commuters etc. price strategies for better use of capacity 	<p>ZVV Switzerland:</p> <ul style="list-style-type: none"> ZürichCARD, special ticket for guests, 9 o'clock ticket, valid up to 9 o'clock to operating end ZVV BonusPass, annual pass for employees, job ticket <p>VVO Germany:</p> <ul style="list-style-type: none"> daily ticket for families, max. 6 persons with two older than 14 years
<p>adaptation of ticket scope:</p> <ul style="list-style-type: none"> definition of the scope of the tickets relating to local or regional conditions <ul style="list-style-type: none"> age restrictions (child, teenager, adult and senior) spatial and temporal validity validity in special means of transport transferability of personal tickets to other persons 	<ul style="list-style-type: none"> harmonisation of scope realised in different areas family tickets etc.

Requirements for tariff systems in tariff unions

Zone System:

- simple and clear zone system
- no cutting of political municipalities
- natural boundaries to be considered
- fair for the users
- fix zone boundaries
- Identical zones for passes and single tickets

Tariff System:

- simple and clear tariff system, Standardized ticket assortment
- Uniform tariff regulations
- constant price differences between zones
- limitation of price leaps at zone boundaries
- declining tariffs for passes
- linear tariffs for single and multitrip tickets

The chosen zone systems are always an optimisation between clarity, tariff fairness and the losses.

Specific Tariff Optimisation Measures

reduction of rebates:

- critical examination of the rebates granted today (e.g. for season passes)
- rebates have to be justified by cost savings or additional incomes
- optimal consumption of the willingness to pay is needed
- that requires an exact market analysis

temporal discount ticket:

- also: Off-peak time discount
- shifting of travels of certain target groups from rush hour into demand-poorer times
- journeys for leisure time and shopping
- temporal discount tickets can help keeping quality standards
 - more free capacities (free seats) in peak hours
 - not so many step in or step off shortens stop times, reduces travel times and avoid delays

review of customer retention:

- a stronger differentiation between users
 - rare user: uses PT very seldom, single or daily ticket
 - intensive user: uses PT very often/every day, season pass
 - frequent user, widely optional (not all journeys are accomplished with PT, but good connection to local PT system and PT-friendly attitude), high potential but no adequate ticket available, a solution like Halbtax, Switzerland is very innovative, a customer retention pass for a flat rate and a Swiss wide rebate up to 50% for each journey with PT

review of the strategy of season tickets

- an exact market analysis is needed regarding the season ticket
- a “more” of paid travels must be achieved
- possible through an increase of the break even point or degreasing rebates

pricing of additional benefits:

- typical additional services:
 - assignability

- entrainment of persons
- entrainment of bicycles/dogs
- flextime validity
- enlargement of the valid area at the weekend/in the evening
- permission of additional customer rights
- additional services not extra priced and offered obligatory to every customer
- thus the number of the unpaid travels or services increases and the willingness to pay is exploited suboptimal
- additional services should not be granted free of charge any longer but rather be priced
- depends strong on the willingness to pay and needs an exact market analysis too

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