

# The Role of Websites in Promoting Urban Public Transport

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**Abstract.** Using Internet for the purpose of promoting mass transport has already become a fact. That fact results first of all from the continuous and widespread access to websites, the global reach of the Internet, as well as low unit costs of promotion via Internet. That is why the organizers and operators (services providers) of urban transport develop and modernize their web services – which as a result become better and better – which include not only the information indispensable during the journey (about the line routes and tariffs), but also the widely understood promotion of collective transport services.

**Keywords:** Public transport, promotion, websites of public transport.

## 1 Introduction

Promotion of collective urban transport is carried out by means of various instruments. A special place among them belongs to the websites of organizers and operators (services providers) of urban transport. A website serves as a source of information about transport, it is also a channel for distribution of services, as well as has a particularly vital role in the system of public relations [5].

Organizers and operators (services providers) of urban transport quickly appreciated the role of Internet in influencing transport behavior patterns. That is why a systematic development has been noted of websites devoted to urban transport. Internet services of the organizers are subject to appraisal – it can be noted that among the ones that were assessed as better has been the internet service of the Municipal Transport Union of the Upper Silesian Industrial Region (KZK GOP) in Katowice, Poland.

## 2 Directions and Examples of Making Use of the Website in Promotion of Public Transport

Promotion is a tool for communicating with consumers. Presently, when service providers take into consideration in their strategies not only the direct (final) buyers, but also the widely understood environment and stakeholders functioning in it, promotion should be understood as a process of communicating with the surroundings.

Among the elements of promotion one can include:

- advertising, which is a "paid form of impersonal marketing communication concerning the organization, product, service, or idea, by an identified sender" [7],
- direct personal sale, defined as "bilateral information flow between the purchaser and seller, having the purpose of influencing individual or group purchase decision" [7] – including, in increasing way, the electronic channels,
- public relations – "all activities having the purpose of promoting and/or protecting the image of an enterprise or product" [3],
- promotion of sales, that is "short-term display of the value offered, as invitation to purchase given goods or services" [7].

Practically speaking, in case of each of the elements mentioned Internet, especially websites, plays an ever increasing role in collective urban transport. The only exception there is advertising – as in Poland one can relatively rarely encounter advertising of urban transport services by means of Internet. On the other hand, in the case of sales promotion and public relations websites seem virtually irreplaceable. Also a direct personal sale, thanks to selling the so-called virtual tickets (tickets used by means of cellular phones) becomes a promising area of promotion activities in urban public transport.

Promotion activity encountered at websites of organizers and operators (services providers) of collective urban transport takes the form of integrated projects, often-times implemented by several different entities (organizers of transport, or organizers and units from outside the sphere of collective transport – e.g. police).

Among the examples, one can list here:

- image-generation campaigns for urban transport (and entities that provide such services), which have the purpose of changing transport-related behaviour and improving the reputation of the provider of transport services – such activities may be included in public relations activities, but also in sales promotion (in the light of the definition provided above), as sometimes they also bear the signs of sales promotion,
- passenger information systems, which may be classified within the sphere of direct sales,
- sales of tickets via Internet (also direct sales).

Image-generation campaigns become a common way of forming the reputation of urban transport, and are used ever more widely in developing the division of transport tasks. Sometimes they have the form of nation-wide campaigns, but usually are of local character. The most popular in Poland was the social campaign "Swap the car for a bus" („Zamień wóz na bus”) initiated in 2007 by the Urban Transport Chamber of Commerce (Izba Gospodarcza Komunikacji Miejskiej - IGKM) from Warszawa. Participating in the campaign were transport organizers and operators (providers) from 15 towns. The climax of the campaign was participation in the European "day without car". Within the framework of the campaign, press conferences were organized – the aim of all activities was to stress the advantages and role of public transport in the development of sustainable transport in cities [16]. It is a striking thing that a campaign which involved huge areas and provided interesting promotion solutions is not continued in such a form. That seems to indicate a poor integration of the Polish mass transport community. Although

the chamber IGKM exists yet, despite many years of its activities, that organization appears unable to follow such examples as that presented by VDV (Verband Deutscher Verkehrsunternehmen), active in Germany [17]. VDV performs actual active marketing functions concerning image building (also in reference to cargo transport). One of the examples of the activities of that association is the campaign, initiated in 2007, under the motto "Do something for climate – develop your rolling stock" [15]. VDV engages in many more such campaigns, whereas in Poland they have local character – it seems that this calls for changes.

The Municipal Transport Union of the Upper Silesian Industrial Region (KZK GOP) has interesting experience in social (image-building) campaigns, which union not only took part in the campaign "Swap the car for a bus" („Zamień wóz na bus") (with the aim of changing transport-related behaviour), but also engages in its own social campaigns [6]. Those initiatives have the following aims:

- changing transport-related behaviour,
- improvement of the image of urban transport organizer (KZK GOP),
- enhancing safety (not only in the means of collective transport).

One of the most original initiatives of KZK GOP concerning improvement of the image is the campaign called "Let us meet on the bus" and "Let us meet on the tram", the purpose of which is pointing out the importance and difficulties of the work of ticket inspectors. That campaign has been continued since 2008, and consists of displaying posters at stops, promoting the work of ticket inspectors of KZK GOP [12]. A similar aim exists in the case of campaign "Show your ticket, do not be ashamed", which promotes a new solution concerning organization, consisting of showing tickets to the driver upon entering the vehicles on selected lines [11]. An interesting area of image-related activities of KZK GOP, popularized via the website of that transport organizer comprises the efforts to improve safety (not only in public transport, but also in urban space environment). KZK GOP has been involved in activities in that respect, among others in co-operation with the police. The main campaign, launched in 2007, is that called "It is safer together with KZK GOP and Sznupek" – the main character or in fact protagonist of the campaign is Sznupek (a plush mascot), which teaches children the principles of safety and of using urban transport. That campaign puts together the elements of safety and development of a positive image of collective transport and the ability of using transport services [13]. Image-oriented initiatives of KZK GOP are presented at the website of that transport organizer, it is also a channel for contact of service recipients with KZK GOP. That website serves the purpose of publicizing the campaigns, and communicating with potential recipients.

The website is also a basic tool for providing transport-related information. In particular, the following information is under consideration:

- information on tariffs (including promotions),
- information on time tables,
- recent/ current information about changes in the transport offer.

As concerns tariffs, of importance for the users of services are particularly the information concerning fares, eligibility of reduced fares and using transport free of charge, the procedures of appeal from the penalties imposed, as well as zones in the tariff structure.

Among the systems of providing information on transport, worth distinguishing are the systems of presenting time-tables and journey planning. Internet allows not only to provide exceptionally simple and cheap access to information about transport. At present, organizers and operators (service providers) very frequently provide time-tables on their websites, in the form of time-tables for specific stops and for specific lines/ routes. Even complex systems of routes and lines, characteristic for big conurbations, are presented in a digestible, convenient form. This has already become a standard for the websites of collective urban transport. Less common are the so-called journey planners, allowing planning a journey using various lines/ routes and pedestrian access. The flexible solution called Google Transit [4] is used even more often, which may be linked with websites of urban transport organizers. As of 18.04.2010 there are five cities in Poland, which have been using such a solution: Białystok, Olsztyn, Szczecin, Warszawa, and Zielona Góra, compared with 446 cities worldwide [9].

Sales of tickets via Internet are still rare in Poland, although those systems are currently intensely developed. Solutions are introduced which provide the possibility of paying via Internet for the so-called mobile tickets (used in cellular phones) or – in case of charging by means of electronic cards – collecting the toll, while the content provided on the card is updated during the next use of collective transport. That is in line with the trends present in other countries, where that channel of distribution is developed (e.g. Vienna [10], Helsinki [14]). In the conditions of e-economy, which has been becoming the reality of the 21st century, the introduction of sales of services via Internet is a particularly important issue [1] and [2]. One can expect that the number of people will be increasing, for whom the use of public transport will depend upon the possibility of easy, electronic purchase of the ticket. The barrier for buying tickets via electronic means in Poland is the necessity of registering beforehand and pre-paying sufficient funds, or agreeing for debiting one's bank account, as the purchased tickets are not settled with payments for telecommunication services. Also the payments for the fare and for data transmission that took place during the purchase are settled separately.

### **3 Assessment of Functionality of Websites of Urban Transport Organizers in Poland**

The basic measure of functionality of a website is the traffic generated there, measured by the number of visits, taking into consideration more detailed data – including which parts of the website are visited most frequently, and how the number of visits changes with time. For example, the home page of KZK GOP website, between May 1, 2009 and April 30, 2010, was visited nearly 12.5 million times, Fig. 1.

Many more visits – nearly 141.5 million – were registered for pages related to the time-table, which were the most often viewed pages at the KZK GOP website. Users usually made use of the web pages of the Union KZK GOP several times. Depending upon the content, some 71% to 78% of users returned to KZK GOP website, while other visits were one-off events.

It results from the above that the home page of KZK GOP was opened over 34 thousand times a day, on the average, whereas the pages with time tables had nearly 388 thousand visits a day. The number of visits changes in specific months. The peak

activity of internet users visiting KZK GOP web pages was recorded in October 2009, whereas the opposite was true for holiday months. Also the time spent by Internet users at KZK GOP web pages differs depending on the page content. The time of displaying the home page varies between 47 seconds and 1 minute and 52 seconds, whereas the time spent on the pages related to time tables amounts to between 3 minutes and 3 minutes and 18 seconds.

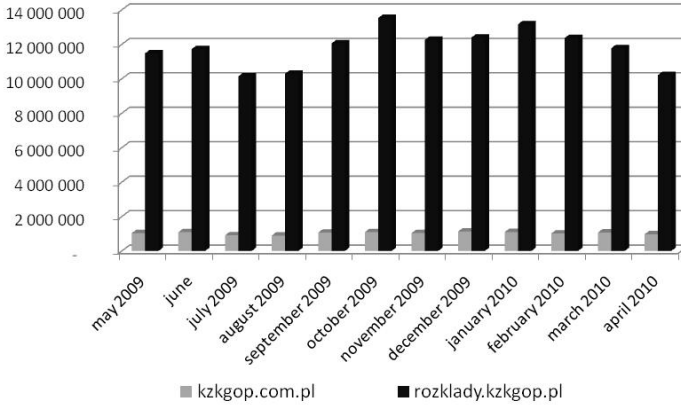


Fig. 1. Number of visits to the home page of KZK GOP and pages related to time-table, in the period May 1, 2009 - April 30, 2010. Source: Own study on the basis of KZK GOP data.

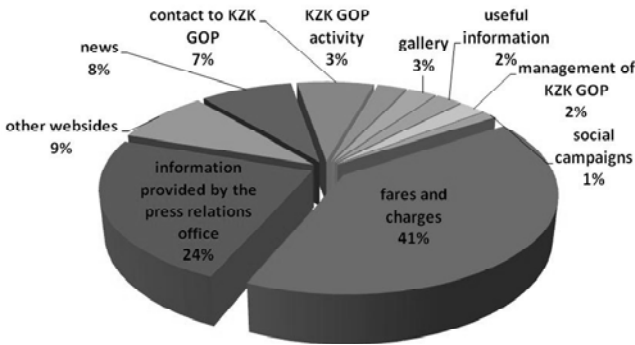
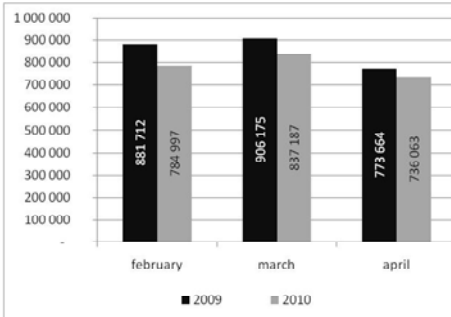


Fig. 2. Distribution of visits to KZK GOP web pages, apart from the home page of KZK GOP and pages related to time-tables, over the period: 1.1.2009 -30.4. 2010. Source: Own study on the basis of KZK GOP data.

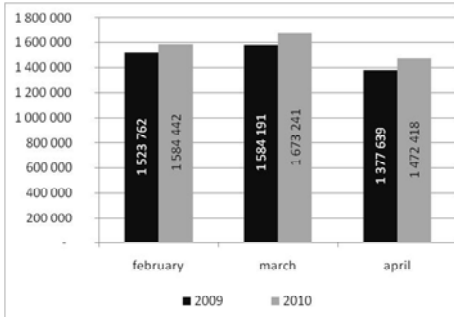
In other words, the parts of the KZK GOP website, besides those pages which are devoted to time tables, which are most often used by internet users, are the pages referring to fares and charges, information provided by the press relations office, news, and contact to employees of the Transport Union. Fig. 2.

The number of internet users visiting the website of KZK GOP varies in specific periods. It can be gathered from Fig. 3 and Fig. 4 that the number of the home page users of the Transport Union is on the decline.

However, there is a steady increase in users that visit pages related to time tables. It is then concluded that the people who want to obtain the necessary information go directly to the page of their interest, without visiting the KZK GOP home page. Those are probably regular users of the KZK GOP website.



**Fig. 3.** Dynamics of visits paid to the KZK GOP home page between February and March, 2009, and 2010. Source: Own study on the basis of KZK GOP data.



**Fig. 4.** Dynamics of visits paid to the KZK GOP pages related to time tables, between February and March, 2009, and 2010. Source: Own study on the basis of KZK GOP data.

The efficiency of use of the website in promotion depends upon numerous factors, in particular upon the functionality and aesthetics of the website itself. In Poland, cases of websites of urban transport organizers and operators (service providers) benchmarking are rare, one of the few made is the audit performed in 2009 on ten biggest service providers for urban transport in Poland – the study was performed by EDISONDA [8]. The following elements of internet services were examined: home page (weight 1), time tables – availability (weight 3), time tables - readability (weight 3), connection search (weight 3), maps and schemes (weight 1), fares (ticket prices) (weight 1), changes in time tables (weight 2), navigation in the service (weight 2).

The audit was based on a point scale, where specific categories could obtain a score between 0 and 5 points. Specific scores were weighted using weights from 1 to 3. The weight values have been provided above. Of course, those weights may raise concerns of doubts – yet that is the right of the authors of the audit, which would be difficult to dispute.

As regards the home page, attention was paid to such elements as aesthetics and readability of the page. In particular, the factors that negatively influence the appraisal of the home page include a large number of banners, as well as a complicated menu. Of importance is also a suitable division of the page, colours, and structure of the navigation menu. The page/ website should not have a complex structure – access to the lowest level of information should not require more than three clicks. The examined websites of service providers in urban transport appear to show some differentiation, and received marks from 1.5 points (Łódź) to 4 points (Warszawa, Wrocław,

Poznań). Those websites change year by year, yet it is noticeable that still a lot of work is required to make them modern, so that they meet the needs concerning promotion of urban transport services. The following solutions may be recommended for the home page:

- restricting the amount of information to a minimum (the page should not distract attention) and providing such organization of the page that it is not necessary to use scroll-bars (e.g. thanks to the application of a “building blocks” structure),
- organization of the menu having in mind the division into information required for service users, as well as information about the service provider (addressed mainly to media and suppliers of the operator (service provider)/organizer),
- direct access to information about time tables (network).

An important element of the urban transport websites is the information about time tables. Usually they have the form a list of lines (routes). The availability of time tables varied (being the best in Gdańsk – 5 points, and the poorest in Wrocław and Szczecin – 2.5 points each). As regards the readability of time tables, the highest score was that of KZK GOP (5 points), and the lowest that of Bydgoszcz (1.5 points), where the information was “blurred” by providing the information in 3 languages simultaneously. It is worth stressing here that in case of information provided by KZK GOP, when constructing the website an additional difficulty had to be overcome, namely the complexity of the transport network, comprising not only the 25 municipalities belonging to the union, but also several adjacent municipalities. Among the recommendations concerning the provision of information about the line, the following can be listed:

- explicit navigation to the page with time tables,
- access to information about time tables by searching not only the numbers of lines, but also stops,
- publication of additional information about specific services,
- time tables should be easily printable (also in shortened versions).

Search engines for connections constitute a particularly valuable functionality of websites. They are indispensable in conurbations. Independent of the Google Transit function presented before, it is necessary for the biggest cities to offer such a functionality in their internet services. In the case of the studied ten biggest cities in Poland, it was only Lublin that did not offer that possibility. The other cities had search engines – the highest score for search engine was achieved by KZK GOP (5 points), the lowest by Wrocław (3 points), still those solutions were generally relatively highly appraised. Similarly as in the case of information about time tables, also there it is necessary to provide easy access to the search engine (the more so, that it is often used by guests to the area, who did not have the opportunity earlier to use the services of a given transport service provider) as well as easy legibility and explicitness of information generated by the service.

Internet services in urban transport must also enable easy access to information about tariffs, as well as changes in time tables (traffic limitations). In particular, one should note here the necessity of limiting the use of specialist vocabulary. Appraisal of specific services from the point of view of availability of information about fares is high, and quite similar (the highest scores in Warszawa and Poznań – 4 points each),

the lowest (2.5 points) in Gdańsk. On the other hand, more problematic is the information about changes in time tables – due to the many changes (caused mainly by numerous repairs of road infrastructure) it appears difficult to provide the necessary information in easily readable fashion. That is why scores are lower and vary from 3.5 points (Warszawa and Łódź) to 1.5 points (Wrocław). It seems desirable that in case of changes to time tables, information about such changes should be published already in the time table plan, and that changes are marked by different colours, while the home page should signal changes and limitations that occur.

The navigation in such services was not appraised too high (with the exception of Warszawa, scoring 4.5 points). It would be advisable to provide the possibility of returning to the home page from every level of viewing, and to provide access to an abridged map of the site as specific pages. The results of appraisal of websites according to the criteria discussed are provided in Table 1. As it can be seen, the highest scores were that of KZK GOP, slightly ahead of ZTM Warszawa. One can see here the differentiation between specific service providers, as regards the appraisal of the internet services offered.

**Table 1.** Appraisal results for websites of urban transport in Poland

Category / city (region)	[weight]	Warszawa	Łódź	Kraków	Wrocław	Poznań	Gdańsk	Szczecin	Bydgoszcz	Lublin	GOP
home page	1	4	1,5	3,5	4	4	2,5	3	2,5	3	3,5
time tables-availability	3	10,5	12	12	7,5	13,5	15	7,5	10,5	10,5	13,5
time tables- readability	3	10,5	10,5	10,5	7,5	10,5	13,5	7,5	4,5	12	15
connection search	3	12	12	12	9	12	12	9	10,5	0	15
maps and schemes	1	4,5	4,5	5	0	4	4	4	2,5	1	0
fares (ticket prices)	1	4,5	3,5	3	4	4,5	2,5	4	4	3	3,5
changes in time tables	2	7	7	6	3	4	4	5	5	5	5
navigation in the service	2	9	6	7	4	7	7	5	6	5	7
Weighted average		62	57	59	39	59,5	60,5	45	45,5	39,5	62,5

Source: [8].

Analyzing the results of the ranking discussed, one can note that websites are still not fully utilized as a tool for promoting collective urban transport. In particular, numerous changes are needed concerning the easiness of navigation and making use of time-table information. Corrections are also necessary as regards the offered search engines for finding connections. It is evident that websites require continuous modifications – they are by no means established once and for good, and the provision of information, as well as compactness of structure, along with mechanisms of providing services, call for incessant modifications.

## 4 Conclusion

Use of Internet in the promotion of collective transport became necessary. At the same time, it poses a chance for efficient promotion of collective transport, in all



dimensions of promotion (not only advertising, but also personal direct sale, public relations and sales promotion). Organizers and operators of urban transport in Poland are aware of that fact, and take ever more efforts to develop further and to modernize their Internet services. One can expect this tendency to be durable. It would be advisable to use websites in a wider manner for promoting the changes in transport-related behaviour – in particular through wide-spreading their image-building campaigns. It is worth pointing out the necessity of integrating the efforts of organizers and operators (providers) of collective urban transport. A platform for such integration should be a nationwide organization (following the example of the German VDV) with membership of transport organizers and operators, as well as non profit entities interested in the development of collective transport. Changes in the functioning of the Polish chamber of urban transport (IGKM) appear to be necessary; alternatively the service providers may establish a new entity of such kind.

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