

Value for Clients Resulting from Rail Transport Market Regulation in Poland

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Primary submission: 18.07.2014 | Final acceptance: 05.09.2014

Abstract

Purpose: The aim of this study was to elucidate the role of regulation as a tool to create values for both business entities and individual clients due to competition development in the Polish market of rail transport services.

Methodology: This study was of a conceptual character. It was based on the analysis of the notion of the rail transport services regulation and the main regulation problems that have appeared in the rail transport regulation practice so far. The analysis of literary sources as well as practice enabled the author to highlight the circumstances when the regulation becomes a necessity and to discuss the conditions for its introduction.

Findings: Reviewing the regulation on Polish railway transportation market, the author presents a fundamental conclusion – despite all the changes on the market, regulation does not produce assumed results perceived as an increase of transportation role in economy. According to author, major improvement of institutional and marketing efficiency of regulation entity is essential, as it is relevant for producing favorable results concerning the way the market operates, behavior of the market players as well as building customer value.

Originality: Market regulation is a new phenomenon in Polish rail transport. The study discussed the notion of regulatory service. A value-for-clients model was also offered, i.e. the clients of regulatory activities in the course of the competition development in the rail transport services.

Keywords: market, market regulation, key facilities, value, network

JEL: M30, M38

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| Introduction

The contemporary market of rail transport services in the European Union is assisted by certain competitive processes. There are four essential factors that affect competition in the transportation market (Rosa, 2013):

- Availability of the capital;
- Availability of the managerial staff with experience in business management;
- Availability of the administrative staff with experience in market regulatory activities;
- Availability of transport infrastructure.

Development of competition in rail transport requires, for new freight entities that enter the market, ensuring their easy access to the rail infrastructure². A new market is making an appearance, the so called “interconnected market” (Majcher, 2005), that consists of two submarkets: the market of essential facilities and the market of services that exploits these facilities. The interconnected market is subject to regulation from the regulatory authority through the mechanism of independent regulation. Market regulation offered by the Office of Rail Transport should serve as a source of benefits for clients. This claim is confirmed by the research results published in the Report of IBM Business Consulting Services (Antonowicz and Majewski, 2013). One of its theses is reflected in the following statement: “a regulatory body should be client oriented and should perceive itself as a provider of regulating services”, i.e. implement marketing instruments in its market activities. Such activities should convince the general public that the regulator acts in the best interest of the general public, in other words, the regulator is socially beneficial. The regulator must be aware of its relations with the environment and of the benefits which arise for clients from the properness of these relations (Antonowicz, 2008).

| Idea and role of market regulation in Polish rail transport

Both in economics as well as in administrative law, the issue of independent regulation is a novelty. It is based on the general principle that, for example, in rail transport imposes separation between infrastructure and freight. In the case of public services, such a separation refers to the management of infrastructure, on the one hand, and the freight on the other. It comes, among others, from the European Union transport policy and its principle of “the client pays”³.

² Infrastructure is understood as man-made permanently located public facilities: line facilities (e.g. railway track – rails, engineering facilities, steering systems, etc.) and spot facilities (train stations, cargo terminals). They underlie socioeconomic life due to their role in public and freight transport (see Pizkozub, 1982).

³ The principle of “the client pays” means that benefiting from the transport infrastructure is possible for the right fare; in the case of rail transport, fares are authorised by the market regulator.

In his analysis of the subject, W. Hoff (2008) defines regulation as a legally preconditioned method of influencing the economy by the state. Such influence consists in issuing administrative decisions by the state, which order businesses to fulfil certain market-related duties. What matters is the functioning of the market as a whole. This in turn means that properly conducted regulation is impossible without prior in-depth knowledge of the regulated markets as well as well-established methods of market analysis. The market, according to W. Hoff (2008), should be perceived both in functional and dynamic terms, and with reference to economic phenomena. What is more, such analysis should be carried out within the framework in which competition operates and, at the same time, it should take into consideration the functioning of this competition.

In the course of study of the regulation issue, attention must be drawn to the concept of regulation proposed by J. Stiglitz (2004). He asserted that the aim of regulation is to ensure the subsistence of competition wherever possible, but also to obstruct the abuse of dominating position by natural monopolists (e.g. by raising prices) in those branches where there is no room for competition. The fundamental role of regulation is to replace the principles of free market competition by the state-appointed specialized regulation bodies, with suitable legal provisions and norms. In George Stigler's (Stiglitz, 2004) opinion, this means taking advantage by the state of its right to employ coercive measures to gain particular objectives in a given area, e.g. in rail transport. From the perspective of economy, the premise for the regulation of a business activity comes from the market imperfections, and the justification for such regulation lies in the theory of public interest. Regulation is applied in cases of market failure or market defects that hinder the maximum utility and optimal allocation of resources so the market does not function, in Pareto optimum sense, appropriately (Fijor, 2012). Consequently, when the state influences the economy, it substitutes natural market mechanisms to satisfy public interest, and thus de facto tends to the protection of the end consumer.

Public interest is supervised by the state authorities that employ their institutions, tools and instruments. In Poland, it is the President of the Office of Rail Transport⁴ that acts as a state authority as well as the rail transport regulator. This is a state authority whose duty is to supervise market relations between the supplier of the key appliance (infrastructure) and the market entities that use this infrastructure. The regulator renders a specific set of regulating activities that compose the so called "regulatory service." It may be defined as a body of actions that affects the decisions that eliminates undesirable phenomena from the market as well as improves the functioning of the market entities and eventually leads to the satisfaction of the transport needs of both the society and the economy. In the author's opinion, this falls under the Hollins and Shinkins definition of services (Hollins and Shinkins, 2009) that defines the service as a set of functions offered to the users by a given entity, or as the result reached by contact activities performed by the service provider and the client, or else by activities carried out at the

⁴ 28 March 2003 Act on Railway Transport, consolidated act, Journal of Laws 2013, item 1595, art. 10–16.

service recipient's place to satisfy their needs. Undoubtedly, regulatory activities of a regulator fall within such framework. This pertains both to actions towards infrastructure managers⁵ who offer the service of access and to the carriers who offer the transportation service. Nonetheless, regulatory activities become the service only when they enable a choice of such combination of the service activities that affect a cluster of benefits for either an individual or a group of the service recipients (Styś, 2003). At the same time, it must be noted that Kotler and Lee (2008) explicitly indicated that the role of a public body is to provide services of public character, services which are of critical importance for the public interest, inclusive of the services which meet the transportation needs of both the society and the economy. The regulator's functions within the service offered are the following:

- Ensure equal and non-discriminatory access to the infrastructure for all carriers and users (especially the principles of granting access);
- Prevent the abuse of dominating position by the entities that manage infrastructure (especially the supervision of the level of charges, methods and tools to influence the infrastructure management);
- Protect the rail passengers' rights (to supervise the quality of the services);
- Provide information and to monitor the market.

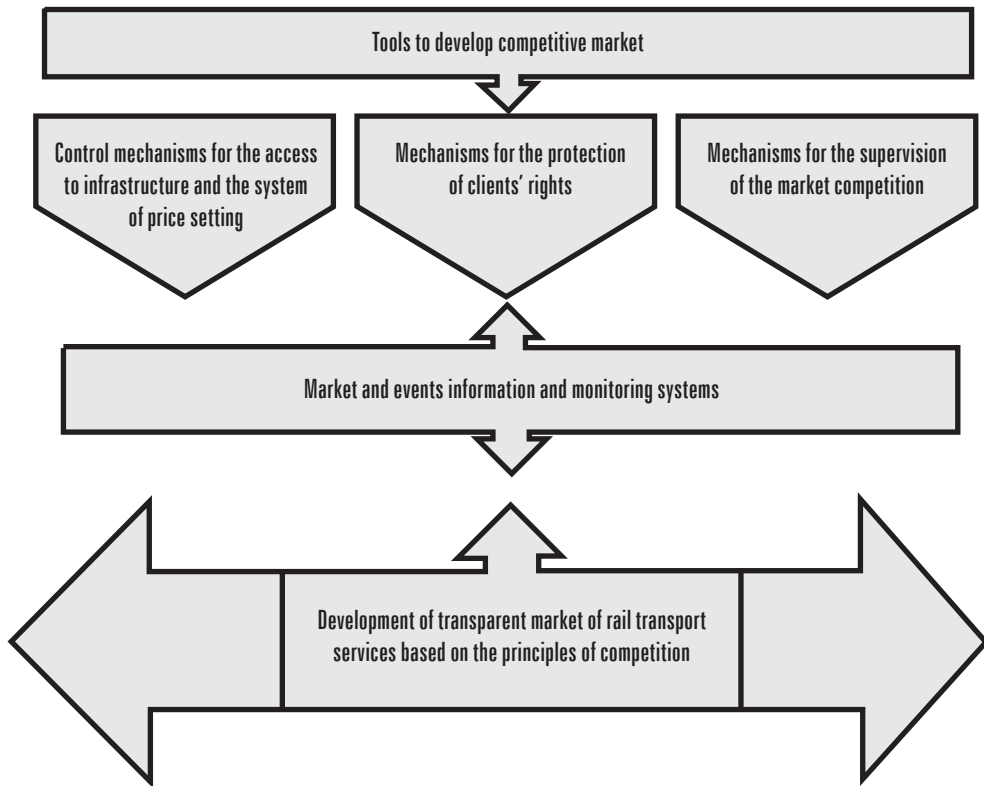
The regulatory authority ensures equal access to the rail network and interconnected services. It also guarantees the end-user's satisfaction with the supply and quality of services. Such definition of regulation in rail transport is a part and parcel of economic regulation and has been set for the development of a competitive market. This is presented in Figure 1. Efficient regulation means development of competition; and competition in the rail transport means the ever-growing variety of transportation offers. This is in accordance with the transport-specific features that determine it is not the service itself that is picked on the market but the service offer that consists of a set of expected benefits offered to the buyer. Services are benefits offered for sale and as such are incalculable and subjectively valued by the buyers (Załoga and Bronk, 2005).

| Regulation problems with the rail transport market in Poland

The prior discussion, in the context of rail transport services, leads to three fundamental issues: 1) the market; 2) the occurrence of key facilities indispensable to render transport services; and 3) the fee to be paid for the access to the infrastructure. The market of transportation services is an economic and social category that is related to the production and exchange of relocation services. Mutual interaction of the seller and the buyer of these services in the market leads to the formation of the supply, demand and prices. In competition law, the key term is the so called "relevant market." To define relevant market is necessary if one wants to define the market position of a given entrepreneur, i.e. to define their market share. Basically, two components make

⁵ Infrastructure manager – legal entity which administers, manages and gives access to the line infrastructure (rail tracks and adjacent facilities).

Figure 1 | Logic of the rail market mechanism



Source: based on Antonowicz (2008, p. 48).

up the definition of the relevant market: 1) the market in terms of products' and 2) the market in geographical terms (Platanowa-Latanowicz, 2006). In terms of products, relevant market includes all products/services that from the consumer's/buyer's point of view constitute substitutes (used as substitutions for the quality, price or the application). In geographical terms, relevant market comprises the area in which there are sufficiently homogenous conditions for business entities to compete. Such conditions pertain to access barriers, consumers' preferences, costs of freight and price differences. The dilemma of how to delineate the relevant market of rail freight services is especially important and particularly difficult. Some hints may be sought in the European Commission's opinion that implies that even an individual port or airport, which does not belong to the common market, may be regarded as the relevant market in geographical terms if reasonable access to its facilities is vital for business entities to reach other crucial transport routes (Bognard, Moller, Raimann, Szadkowski and Dubejko, 2007). This criterion is significant for such cases as rail dry ports, high-priority border stations and large sorting stations.

The second important issue arises from the problem of access to the so called "key facilities". The theory of key facilities indicates that business entities that hold dominant market positions and

possess such facilities and fixings may obstruct their competitors' access to these facilities and fixings with no sensible grounds offered. Even if such access is granted, this is done on less beneficial terms than those fixed for the dominator's own services, and then such businesses violate the provisions of clause 102 of TFUE⁶. In his analysis of theoretical views, Król (2012) observed that in economic sciences, there is a widely accepted opinion that favours enforced access to facilities being held by one entity; however, such access should be subject to the following four essential conditions:

- The facility is held by a business of significant market strength;
- Potential competitors have virtually no possibility to duplicate the facility;
- Access to the facility is indispensable to compete in the higher or lower market;
- Access to the facility can be ensured (it is feasible).

Research conducted by professor M. Zauner of the University of Stuttgart⁷ in 2004 on haulage contractors and infrastructure managers in Germany determined the essential facilities in the rail sector as follows:

- Railway network;
- Railway traction;
- Timetable fixing system;
- Railway emergency services.

Accordingly, access to essential facilities is considered on the grounds of the third party access (TPA) principle. Application of the TPA principle consists in making the infrastructure held/possessed/operated by an entity available to a third party to facilitate the delivery of goods or services to the third party's clients. In railway transport, this availability is not limited merely to line infrastructure but extends to essential facilities and servicing infrastructure, without which third parties' services could not be rendered. Access to the last mile in railway transport means that alternative operators have direct access to a contractor (plant, private spur line, warehouse); to ports and reloading facilities; to reloading railway; and to borders (where the rails' gauge may change).

The third important issue are the prices charged for the access to the infrastructure. Clearly, the problem does not only regard the possible denial of access but also the terms and conditions offered to third parties for such access and, above all, the access price, which tends to be charged at a high level⁸. Therefore, another related and controversial factor is the price quoted for the access to infrastructure. The problem is not only the method to calculate the access fee

⁶ Traft on European Union, Art. 102, it is against the internal market and as such is forbidden to take advantage, by one or more business entities, of their dominant position on the internal market or its significant part if such activity may affect trade between member states.

⁷ Unpublished materials of UTK, Warsaw 2008.

⁸ Average access price according to Global Business Services "Rail Liberalization Index 2011" IBM Brussels 2011. 4.4 Euro/Pockm for Poland.

but also the method to regulate the level of fees. On 13 May 2013 in Strasburg, the Tribunal of Justice questioned the Polish method of access fee calculation and subsequently ordered Poland to lower its fees for the access to infrastructure (case number C-512/10). So far, Europe has not had a homogenous pattern for setting access charges, the more so that the issue is connected with the so called “economy of natural monopoly.” This is the phenomenon encountered in the rail transport sector. There is a business entity, which, by its establishment, organization and making infrastructure available, holds the monopolist position (Kołodziejcki, 2012). Preferred social marginal cost should include marginal costs, i.e. the maintenance costs and infrastructure renovation costs as well as social costs (external costs) of producing an extra product or service. In rail transport, there are costs related to an extra run of a train that covers a particular section of infrastructure. Low access costs, based on marginal costs, mean more employment of the state budget in the maintenance and development of this infrastructure. Natural monopolists can ensure high effectiveness. The problem lies in their liberty to impose high prices. The problem may arise when a natural monopolist imposes high price charges. Therefore, the theory of the state’s regulatory and supervising role over natural chain monopolies leads to the principle of the state’s control over the price rise with regard to their influence on the demand for transport services.

Values and benefits for the market and its entities following regulation of rail transport services

Having discussed the regulatory problems and the definition of the regulatory service, one needs to ascertain that one of the manifestations of appropriate and effective regulatory activities is the advancement of the rail transport services in the market as well as the growth and promotion of competition. In general, the value for the client is a set of benefits and costs perceived by them in the process of service acquisition and use. The components of the value for the client are both on the side of benefits and the side of costs. They are diverse and changeable in time. Basically, they are the outcome of the existing needs, expectations and limitations on the side of the recipient of a transport service. If we assume that the value of a transport service is reflected mainly in benefits and costs perceived subjectively by the client, then from the perspective of an entrepreneur in the rail transport sector, this also means an opportunity for them to create and form the client’s needs and expectations. The possibility to create and form their needs and expectations affects the clients’ evaluation of expected and actually offered transport services.

With regard to the nature of the rail transport regulation, which aims at the development of competition, the structure of the value created for the client by a regulatory service should be considered within the framework of the competition levels. Processes in the contemporary competition, as seen by Szymura-Tyc (2006), run on 4 levels of value creation: the underlying value, the added value, the value extended by the customer service, and the value based on relations. The network attribute of a rail transport service is its characteristic feature. The condition, quality and value

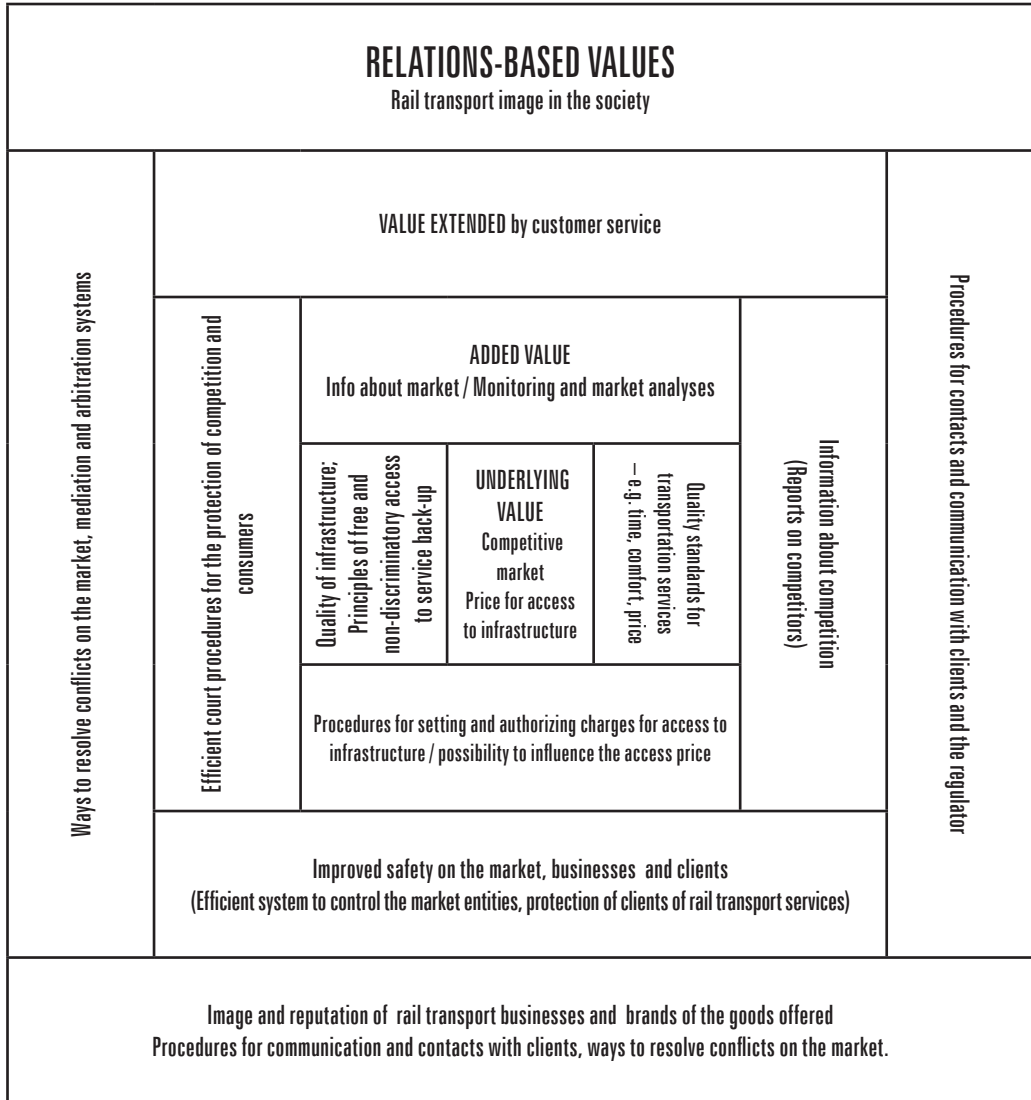
of a rail transport service offered to the client are influenced by many links of the transportation process that determine its final state. The network of the contemporary rail transport service consists in that its value, perceived by the client, is determined by its functions in a specific, extended range of services that affect what the end client as well as the network of various users are offered.

The components of the end rail transport service are delivered to the service provider by the contractors in the course of transport service provision, which includes a set of actions such as organization, executive and administrative, carried out by institutions and their personnel with the use of means of transport to carry people and freight in time and place (Mindur, 2014). The language of network is related to the advancement in the study of the organization and the management of the network concept that has become an inspiring idea in the recent years (Kozminski and Latusek, 2011), as well as with the progress in the network economy (Mazurek, 2012). In the proposed network triad (Mazurek, 2012), network may be referred to as the organizational-managerial sphere or as a method to arrange cooperation between interrelated entities. During the analysis of this sphere, one encounters the relations and connections between entities, sees the extent of the network's functioning, and finds collaboration as the method to create value. Coordination of the cooperation takes place through the establishment of relations that lead to particular types of organization that make use of both the market and relation mechanisms.

Network, in this particular sense, employs a lot of organizations driven by individual or group objectives. Network members contribute their ability to create values (Czakon, 2012). Network management, co-ordination and exchange integration are supported by formal and informal tools as well as communication systems. Rail transport today may be defined as a set of formally independent businesses, which operate via network, and rely mostly on business and partner relations with one another. Obviously, the underlying link of such a network becomes the entity that manages the infrastructure. It makes the infrastructure available, which is the springboard for the creation and delivery of a transport service. The values it creates as benefits and costs, considerably affect the values offered to the end user (individual and business clients) by firms that offer a particular transportation service and are called transportation operators. These links are interdependent, yet they have conflicting objectives, so the final effects as the value for the client, the value of the rail transport for the society, and the competitive advantages of this branch of transport are created by the regulator's service within the model presented in Figure 2.

The reasons for the introduction of regulation in transport are to prevent monopolistic practices and to balance the intra-branch and inter-branch competition. The state interferes since it has its say in the process of price setting, or when it issues licenses to run businesses. So far, the regulator's actions have brought about the institutional development of the market of rail transport services. The number of licenses to run rail transport businesses in Poland is the second biggest in Europe, behind Germany. In 2013, there were 85 active licenses. In the freight carriage segment, the market share of private carriers, e.g. in the volume of bulk, exceeds 50%; and the extent

Figure 2 | Value levels for clients of a regulatory service in the process of competition development on the market of rail transport services



Source: based on Szymura-Tyc (2006, p. 79).

of their transportation service has been constantly on the rise, and has already exceeded 30%. The HHI⁹ density indicator has been gradually decreasing over the years. In 2013, it reached the level of about 0.40. The decrease of the indicator means the increase of the competition in the rail

⁹ HHI (Herfindahl-Hirschman Indicator) shows the estimated density in a particular sector. It is defined as the sum of squares of shares of specific businesses that operate in a given market.

transport services market. Nonetheless, the problems that occur in the relations of the basic network links affect the value for clients. The infrastructure holders and freight carrying businesses cause declines in the market share of the rail transport and the expected benefits never occur in full. Market share of the rail transport in Poland reached a low of 12.6% in 2013, the lowest ever. The time of carriage has been considerably extended, prices for services are relatively high, and the flexibility expressed in communication of availability has considerably worsened.

The effects of regulations on the rail transport services market have also been put forward for analysis at the conferences organized by the Florence School of Regulation of the European University Institute. Professors Finger's and Nash's diagnoses presented at those conferences are not very consistent about the positive effects of the growth of competition on the market (Pieregud, 2013).

| Conclusions

Summarizing the prior analyses, it needs to be stated that market regulation aims at ensuring competitiveness where it is possible and at counteracting the abuse of dominant market position by market monopolists where there is no place for competition. The grounds for regulation should always follow in-depth market analyses as they constitute the proper source of regulatory decisions, i.e. administrative interference of the state in the market mechanism. The Polish market of transport services have changed remarkably due to liberalization and regulation. Rail transport requires further effective reforms aimed at fuller exploitation of resources, productivity and the regulator's marketing efficiency.

From this point of view, marketing efficiency (Garbarski, 2012), understood as the formation of beneficial results from the market functioning, from the ways the businesses operate and from the relation-based values, does not bring positive effects. More and more often, a dilemma arises over what regulatory bodies in rail transport should exactly regulate. When the effects of pro-competition regulation are also considered, it is difficult to decide whether it is the regulation model or the model of vertical integration (that is the dominating model in the USA) that should become the most suitable for market development in Poland. In addition, the regulation of the rail transport market has a lot of adversaries who hold the opinion that interference in the market mechanism is often ineffective and that it is only strong competition that can bring expected, and so much needed, values for the client of transport services (Friedman and Friedman, 1994).

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