

INNOVATIVE APPROACH TO THE SERVICE QUALITY IN RAILWAY FREIGHT TRANSPORT

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Abstract: This article describes the results of research focused on service quality after transportation by railway freight transport. Importance of these services completes final quality of services and it has crucial importance in customer considering on the future use of railway transport. Processes filling the customer demands and output quality assessment were defined as a part of the research. In this contribution is introduced the map of quality planning and the algorithm of applied methodology.

Keywords: QUALITY OF SERVICES, RAILWAY FREIGHT TRANSPORT, MAP OF QUALITY PLANNING

1. Introduction

Service quality in railway freight transport is possible to follow within the frame of all transportation chain or in division on its single stages. Very actual becomes problem to identify quality not only before start of transport and during it but also after ending transportation. At that time the customer often requires supplementary services, eventually, if the customer is not content with the transportation, he solves claim. (KEGA 026ŽU-4/2015)

In term of breakdown of single characters of transportation exist within the frame of world and domestic researches several methods. For needs of search within frame of research carried on Department of railway transport, University of Žilina in Žilina, in collaboration with Railway company Cargo Slovakia, Inc., was applied model, which take into account characters of transportation with linking a perception services quality in ordinary and extraordinary operation. Specifies the partial processes necessary at valuation of services quality offered, whereby are distinguish two different dimensions of quality namely routine dimension and dimension of especial condition. Both are possible watch also after realization transportation. The characters of routine dimension are typical for normal operation, when the service is provided in normal conditions.

Characters of dimension of especial condition customer expects in special situations only. It may be caused to weaker performance, a mistake by transporter as service provider, mistake caused by manager of infrastructure or exceptionality arises in connection with the necessity unusual access to customer, who requires this individuality. These characters simultaneously include also supplementary performances in care for customer, which customer not expects, for example after completion of the transportation itself. Generally according researchs expectations of customer, in order his specially requirements were solved quickly, are relatively low. In that case there arise opportunity for transporter, who can exceed expectations and leave the impression of good quality and high competences in solving problems and after ending transportation.

2. Characters of quality for the phase after ending of transportation

A wide range of metal powders (from light alloys through steels to super-alloys and composites) is currently available for DMLS process and other new materials are under development. Table 1 lists mechanical properties of selected powder materials. (Čamaj et al, 2010)

Selection of characters was realized in accordance with algorithm (see Fig. 1). Figure documents the activities, which were within the frame of research realized and served on identification of customers, determination to needs of customers and processes, which are able to reach required quality. After detailed findings and search was this scheme used as so called map of quality planning,

because quality planning underway continue in these systematic steps. (Nedeliaková et al, 2014)

For the last phase of the transportation chain, after the transportation was finished, was defined six basic characters of quality in the research information, availability, reality, flexibility, customer care, understanding and knowledge of customers.

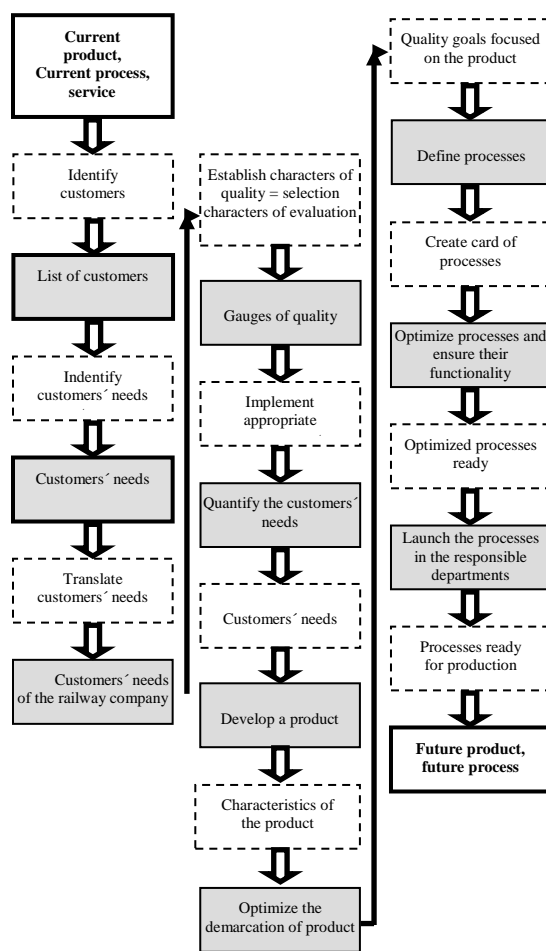


Fig. 1 Map of quality planning with selecting characters of evaluation²
 Characters of quality were closer explained following way (Nedeliaková et al, 2013):

Information = systematic providing of knowledge about the system of railway freight transport, which have to assist in the realization of acts after the execution of transportation.

Availability = scope of the process in terms of time, frequency, geography and suitability of railway operation techniques.

Reality = temporal, spatial and informational security of the phase after transportation, including ensuring the intactness of the consignment after transportation.

Flexibility = speed of handling complaints in case other additional customer requirements after transportation, including exact invoicing of fees for transportation.

Customer care = reinsurance of operations related with unloading of consignment in destination station, solution the problems that arise after the end of the transportation.

Understanding and knowledge of customer = help and support customer needs, knowledge of customer needs.

Figure 2 characterizes a sequence of steps that were made within application of the methodology in real conditions of the transport market.

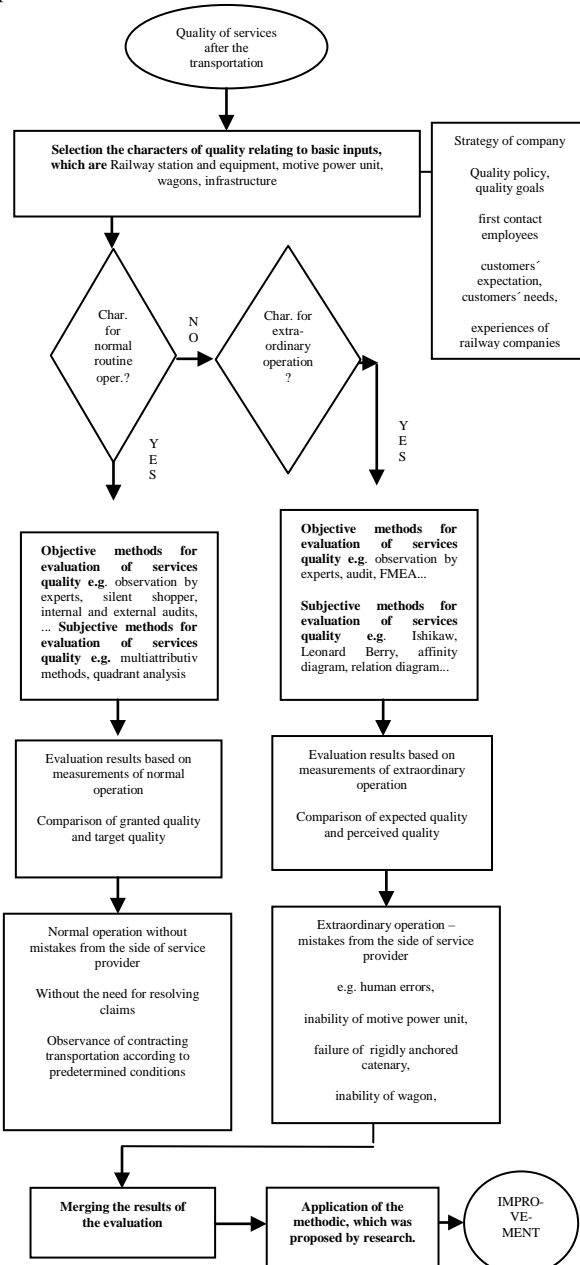


Fig. 2 Algorithm of applied methodology¹

3. Results and discussion

Selection of characters within the frame of research come from practical operation, from experience with contact with customers, according their interest, what are their requirements, needs, what factors are attractive for them, what watching with deciding about

utilization railway freight transport and purpose-built units structure formally organized railway company.

The individual railway stations and opportunities of fulfillment services quality were assessed through point rating scale, which uses 101 points, from 0 to 100, to measuring "micro pushing" level of quality processes filling requests of customer. (Poliak, 2010) This scale for phase of transportation chain after transportation is mentioned in Table 1. Every railway station could reach a maximum of 100 points, and each process needed to ensure quality service was worth 10 points.

Table 1: Rating scale¹.

Number of points	Quality level
0 - 20	unsuitable quality
21 - 40	partially suitable quality
41 - 60	standard
61 - 80	over standard
81 - 100	fully suitable target quality

Characterized by way rating were monitored not only transporter services, as well as with them related equipment railway stations and it according to mentioned the data for a period of one year, when have been identified gaps in exactly defined characters of quality.

Suitably chosen methodology for identifying the level of quality of transportation services must meet the requirements in the environment transportation market Slovak Republic and in specific examples, for a selected stations and track sections to provide relevant results. This methodology allows to monitoring quality of processes provided throughout the transportation chain, therefore before the realization the transportation, during it, and after the ending of the transportation.

4. Conclusion

The benefits of methodology consist in the clarity and in selection of the new characters for rating quality of processes and services It was created universal, therefore with possibility application on the whole transportation chain providing railway freight transport. The benefit to research is newly created methodology, with exactly defining and detailed characteristic of quality characters, which is designed for the management railway companies.

The research revealed that the biggest problems occur within evaluated services with technical securing, but also with related insufficient equipment of railway stations (spaces, ramps, general loading and unloading track), or insufficient condition and number of certain types of wagons. These problems interfere up to the phase of transportation chain after the end of the transportation and play an important role in normal and extraordinary operation.

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