MARKETING OF PASSENGER SERVICE QUALITY

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ABSTRACT

Growth in demand for rapid passenger transportation, shown in the article, allows to fix the value of such an indicator of quality of service as travel time. Ways to improve the quality of transport services of passengers by railway companies were revealed and substantiated on the basis of the model of factor groups. Transport market coverage extension was recommended for the purpose of marketing, and deepened demand analysis. Age-related differences in the preferences based behavior of passengers when choosing transport mode were underlined.

Keywords: transport, railway, civil aviation, market, competition, quality of service, passenger transportation, marketing research, demand factors.

Background. *As follows from published data, there are two main competitors in passenger far-distance transportation market, which are air and rail modes of transport.*

Within the Russian railways' network more than 95% of passengers are transported by trains of JSC FPC, besides there are high-speed trains Sapsan (managed by the Directorate of High-Speed Transit – branch of JSC Russian Railways), and trains of private carriers Grand Service Express, Tver express train, TransClassService, Passenger company Sakhalin.

Taking into account the traffic segmentation of FPC into a deregulated sector (first-class sleeping-cars and compartment cars) and a regulated sector (third-class sleeping-cars and sitting carriages) there are differences in the structure of competition in each segment. The main competitors for transportation in the regulated segment are inter-regional bus carriers, and in deregulated the main competitors are air carriers [1]. The share of deregulated segment in the structure of FPC is about 25%, or just over 9% of the total passenger transportation market in the far-distance. That is, railway transport is behind air transport, and the situation continues to worsen for railways (Table 1).

As can be seen from Table 1, in recent years there has been a steady growth in passenger traffic and passenger turnover of air transport at the background of reduction of similar indicators in rail transport in the long-distance. An exception is the increase in demand for high-speed passenger transportation, which allows to draw a conclusion about the importance of such an indicator of service quality for passengers as travel time.

Interspecific competition in the regulated segment takes place under non-equal conditions, leading to an outflow of passengers to air transport. This is conditioned by several factors, including the purposeful public policy of support of air transport [3]. An important role is played by:

– Development of aviation infrastructure, providing greater availability and better quality of customer service;

– Purchase of new equipment with the public financial support;

– Targeted government subsidies to socially important air transportation.

The main competitive advantages of air companies under market conditions have become high-speed delivery of passengers, lack of price control and higher commercial and marketing flexibility. But can these benefits be considered constant and under what circumstances passengers choose different priorities? It is possible to answer such questions, only being seriously engaged in marketing research.

Objective. *The objective of the author is to consider results of marketing research on passenger service quality and on competitive factors relevant for air and rail transportation.*

Methods. *The author uses general scientific methods, statistical analysis, marketing and survey methods, comparison, evaluation approach, economic assessment.*

Results.

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Transport companies, including JSC FPC pay more attention to marketing research aimed at improving the quality of passenger service. However, it should be noted that the study of their opinions in trains and at stations does not give an opportunity to get all the necessary information. The target audience of the passenger transport company, in fact, is the entire population, not just passengers of a separate mode of transport. To successfully manage the demand for transportation it is necessary to know the interests of all potential users of transport services, their attitude to the problems of ratio of price and quality, as well as to conduct surveys of passengers of competing modes of transport.

To identify and assess the most significant and secondary passenger service service quality indicators in long-distance traffic it is proposed to apply the well-known to world practice two-factor model of motivation of F. Herzberg. It includes two groups of factors [4]:

1. Hygienic, the lack of which causes dissatisfaction and leads to a loss of a motive to action, in our case – a loss of desire to acquire a transportation service. These factors create the background conditions of normal, «healthy» environment. Their presence motivates the decision in favor of one or another variant of the trip, the choice of a particular mode of transport.

2. Actually motivational factors contribute to increasing attractiveness and desire to purchase and increase the satisfaction with service. However, they are not decisive. In the absence of the proper amount of the first group of factors (sense of dissatisfaction) motivational factors are almost useless for a consumer.

Of course, the same factor can cause different reactions of different passengers, the same factor being hygienic for some passengers, and motivational one for others.

It is advisable for a passenger company to pay the utmost attention to the factors that cause customer's dissatisfaction. And then to spend money to develop motivational factors.

In order to study the passengers' opinions about the quality of transport services under the guidance of the author a survey of 100 «Air Express» train passengers going [from Moscow downtown] to the airport «Sheremetyevo» was performed in 2014.

Table 1

Dynamics of performance indicators of air and rail modes of transport in long-distance * [2]

Indices \ Year	2009	2010	2011	2012	2013	2013 in % to 2012 year
Passenger turnover of air transport, billion passenger-km	112,5	147,1	166,8	195,8	225,2	+15,0
Passenger turnover of rail transport, billion passenger-km:						
Long-distance,	113,3	110,9	110,5	113,0	105,8	–6,4
including high-speed passenger traffic	0,02	1,2	1,6	1,8	1,9	9,2
Number of passengers transported by air transport, mln people	47	59	66	76	86	+11,6
Number of passengers transported by rail transport, mln people						
Long-distance,	117,5	114,9	114,8	116,6	110,7	–5,1
including high-speed passenger traffic	0,04	1,9	2,8	3,2	3,8	18,1

*www.rzd.ru, www.gks.ru

Table 2

The survey on passengers on the importance of service quality factors in rail transport

Question	Number of respondents		
	important – 3	important to a certain extent –2	unimportant –1
Travel time	78	13	2
Safety	93	0	0
Awareness	55	26	12
Comfort	65	28	0
Safety of baggage	86	7	0
Easy ticket purchase	16	77	0
Professional staff	61	25	7
Ticket price	65	28	0

During the same year questionnaries of passengers who used several times air and rail transport were conducted in order to clarify the importance of service quality indicators and to compare levels of satisfaction with the services received. Personally and through the Internet 93 people were interviwed, among them there were 44 women and 49 men. Let's consider a study in more detail.

First possible hygienic and motivational factors have been identified.

Hygienic factors cover:

- *Travel time;*
- *Personal safety;*
- *Safety of baggage;*
- *Professionalism of the staff;*
- *Ticket price;*
- *Comfort.*

Motivational factors include:

- *Awareness;*
- *Easiness of ticket purchasing.*

Respondents were asked to answer a few closed questions, giving assessments using a three-score scale. The survey results are presented in Table 2.

As can be seen from Tables 2 and 3, passengers are primarily concerned with safety, safety of baggage and travel time. The ticket price takes only the 4th place in the ranking. Sufficiently high importance is also attached to professionalism of the staff and comfortable travel conditions, and a high level of comfort is expected originally from behalf of the air transport. Perhaps here a reserve for increasing demand for rail transportation can be found if it will be ensured by respective actual measures to improve travel conditions and to raise specific transport mode's prestige.

From Table 4 it follows, that there is no complete satisfaction with the quality of services provided by rail passenger companies. For example, the quality does not correspond with ticket price. Also, potential customers are not satisfied with professionalism of the staff, respondents noted that it is not always possible to find a conductor, sometimes they do not meet enough kindness and even worth: cases were reported when conductors were found intoxicated in the workplace. But the safety of baggage in general satisfies the respondents, during the trip it is located by the passenger himself in proximity to his seat, there is no need to check in baggage as in case of an air flight.

Indicators of satisfaction with the quality of service provided by air transport are higher. Comfort level is estimated by higher scores. But the same, that was said about carrying baggage by rail, cannot be said about the safety of baggage of air passengers. Satisfaction with travel time is higher for potential consumers of air transport services. And consumers believe the price overestimated to a greater extent on the railways as compared to air transport.

Table 6 shows the relationship of estimates of importance and satisfaction with quality of service of rail and air passengers following the adopted three-score scale.

Table 3

The survey of passengers of the importance of service quality factors in air transport

Question	Number of respondents		
	important – 3	important to a certain extent – 2	unimportant – 1
Travel time	75	14	4
Safety	93	0	0
Awareness	60	10	13
Comfort	75	14	0
Safety of baggage	93	0	0
Easy ticket purchase	16	77	0
Professional staff	61	25	7
Ticket price	70	23	0

Table 4

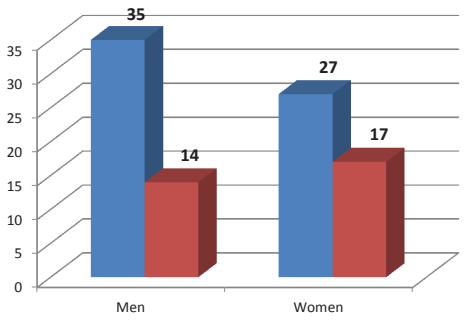
Data on passenger satisfaction regarding rail transport

Question	Number of respondents		
	fully satisfies – 3	does not fully satisfy – 2	does not satisfy – 1
Travel time	46	33	14
Safety	93	0	0
Awareness	60	10	13
Comfort	75	14	0
Safety of baggage	90	3	0
Easy ticket purchase	25	46	22
Professional staff	33	55	5
Ticket price	50	43	0

Table 5

Data on passenger satisfaction regarding air transport

Question	Number of respondents		
	fully satisfies – 3	does not fully satisfy – 2	does not satisfy – 1
Travel time	85	8	0
Safety	93	0	0
Awareness	60	10	13
Comfort	77	16	0
Safety of baggage	23	34	36
Easy ticket purchase	25	46	22
Professional staff	50	38	5
Ticket price	58	35	0



Pic. 1. Parents' choice of the mode of transport when traveling with children in the long-distance, people.

Examples of calculation. To calculate index of «quality of service, the importance of the indicator» data are retrieved from Table 3: (66 • 3+27 • 2+0)/93 = 2,71. To calculate index «travel time, satisfaction with an indicated position» the data are taken from Table 5: (46 • 3+33 • 2+14 • 1)/93 = 2,29.

In relation to the requirements of passengers, rail transport operation is unsatisfactory in terms of travel time, awareness, easy ticket purchasing, professionalism of the staff and, of course, in terms of price. Of these ticket price and travel time can be attributed primarily as hygiene factors. So it is logical that passenger companies focus their efforts primarily on balanced pricing and searching options to reduce travel time. And regarding insufficient level of professional qualities of the staff, that was revealed, it is probably much easier to solve that problem than to increase the travel speed or to reduce prices.

The survey showed that air transport outperforms rail transport, as air transportation is chosen by a

Table 6

Percentage of importance of quality indicators and satisfaction with service provided by different modes of transport

Indicator	Importance		Satisfaction	
	rail transport	air transport	rail transport	air transport
Travel time	2,82	2,76	2,29	2,91
Safety	3	3	3	3
Awareness	2,52	2,30	2,30	2,30
Comfort	2,71	2,87	2,87	2,73
Safety of baggage	2,92	3	2,95	1,86
Easy ticket purchase	2,17	2,17	2,03	2,03
Professional staff	2,61	2,61	2,30	2,48
Ticket price	3	2,75	2,54	2,62

Table 7

Distribution of the passengers' preferences when choosing a mode of transport, depending on age, persons (%)

Age / Mode of transport	Up to 30 years	From 31 to 50 years	Over 51 years	Total
Rail	18 (38,3%)	11 (34,8%)	9 (64,3%)	38
Air	29 (61,7%)	21 (65,6%)	5 (35,7%)	55
Total	47	32	14	93

larger number of respondents. It is surprising that despite the fear of flying aircraft, people still choose air transport, justifying it by the fact that it is not only faster and more comfortable, but also cheaper. So the fear can be ignored if it does not concern a phobia. Even parents, according to their answers, traveling with children, choose air transport. This suggests that they are confident in safety or do not particularly think about it (Pic. 1).

Table 7 shows distribution of answers regarding choice of transport for long-distance travel with respect to the age of consumers.

It may be noted that the category of people up to 30 years and from 31 to 50 years, most often choose air transport (businessmen, working people, families with children and others). This is due to the fact that the respondents have more opportunities to travel around the country and abroad, accustomed to business trips. As for those aged over 51 years, they prefer to travel by rail, and this may be explained by health reasons or habits that have prevailed in the earlier period. At the same time, it is possible to bind an obtained result to differences in the values of life of generations that were noticed by psychologists, when the younger value comfort, speed, are more willing to risk [5, 6].

Conclusions. *Conducted marketing research suggests that this area of the study of the quality of passenger services requires constant attention of carriers. Dissatisfaction with quality, underestimation of factors such as reduction of travel time, are fraught with the loss of a large part of the consumer market. To increase the demand, it is advisable to develop relevant image advertising campaign, and modern structure of the marketing model of railway passenger transportation in long-distance differentiated by age and social categories of passengers, to coordinate with state participation interests of different modes of transport in the framework of common public and business development strategy.*

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Editorial note. Though the survey can not be considered as sufficiently representative, its results prepare the ground for further studies on motivation and customer choice of the passengers of different modes of transport.

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Article received 17.03.2015, revised 21.01.2016, accepted 22.01.2016.