

ROLE AND IMPORTANCE OF IMPLEMENTATION OF QUALITY MANAGEMENT IN BUS TRANSPORTATION

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Abstract

Considering increased passenger mobility, bus transportation has an increasing significance on the market. Creating passengers' trust is achieved through tangible and intangible elements of the service provided. The service, in the first place, has to have ensured quality standards that will be recognized by passengers and due to which passengers will remain faithful to the further use of the service. In order to ensure the quality of the service, namely to fulfil the needs of passengers, management has a role to continuously work on introducing and improving the elements that raise the quality of service. As the processes of acquisitions and mergers in the organization represent an opportunity for market positioning and significance for the economy, on the other hand are a major challenge for the management, because the integration process is often painstaking and the efforts of the management are needed for this path to successfully. Therefore, of extreme importance is the implementation of the best processes of each company in order to improve the quality of the service by merging the companies.

The aim of this paper is to examine passenger's satisfaction with the service after introducing new elements aimed at improving the service, after the acquisition of the company. Main finds are based on understanding passenger's real needs who stated their opinion through questionnaires which represents the basis of further development of business development strategy. Methodology and scope of the work consist of comparing author's previous surveys and current survey in accordance with the Servqual model, which is the practical part of the paper, and theory part related to ensuring quality elements and the importance of its application.

Key words: quality control, implementation, management, bus transport

1. INTRODUCTION

Quality management and its application is always placed in the sphere of knowledge, skills and experience of the management, that are crucial for further development and progress of the organisation. In order to avoid negative trends of success of mergers/acquisitions, the company builds its competition on their own knowledge, by corporation communication of a good quality, by implementing and measuring quality system and by implementing changes. Although quality management is unavoidable process for the organisation to be successful, by inadequate management it can create expenses that are above planned and in that way it can bring the organisation into unfavourable financial position. Expenses of quality represent guidelines for the management to see if the goals that have been set will be achieved and what actions shall be taken on time so the goals are achieved. By implementing elements that influence achieving higher level of quality of service, the management is one step closer to achieving the success on the market. Some of the important elements that have been implemented in order to provide a better quality of service are: mandatory rules and procedures that are present in all processes, vehicle acquisition, i.e. "rejuvenation" of the fleet and its unification, change of organisational structure through the development of internal communication between management and the Group with the use of skills and knowledge, as well as developing awareness of the importance of quality. Quality control has become indispensable part in shaping the service, with the help of which the management measures the goals that have been set and detects possible dangers that may undermine the confidence of travellers. In bus transportation there is a great emphasis on the safety of passengers and the reliability of buses therefore it is important to establish three lines of quality control: preventive examinations in eight-week cycles, internal audit twice a year and Group audit once a year which is done by random sample method and Group audit of processes and procedures. Since these are complex processes that help to achieve maximal profit with minimal expenses, at the same time they contribute to achieving competitive advantage. For each transportation company the feedback related to the satisfaction with using the service provided is very important, which is achieved when the expectation of passenger is met and when he/she feels safe during consummation of the service. In order to achieve that, the organisation needs to be aware of the importance of passenger satisfaction and of the way it will be achieved, and it shall implement on time the key elements.

Servqual research method was chosen because it showed itself to be adequate for surveying passenger's satisfaction and for measuring service quality in bus transport. The model is adjusted towards passenger's needs, and as such gives a full picture in researching the needs of the passengers, and it also gives a full picture regarding the establishing future business strategy.

In bus transportation, since it deals with transportation of people, the quality of service provided represents big challenge from one side, and from the other side it represents a big problem for the reason that management is not aware of what are the factors that are important for the passenger during his/her estimation of the quality.

H1: After the acquisition in bus transportation it comes to the increase of the level of quality of service provided after certain period of time after the elements for quality management have been implemented.

H2: The gap between perception and expectations has decreased after the company has been acquired.

For proving set hypothesis, we will use primary research on the sample of passengers of the company Panturist d.d. before and after acquisition in companies Panturist d.d., Autotrans d.o.o. and Autoprometno poduzeće d.o.o. which has been done in three cycles through survey/questionnaire in the years 2013, 2018 and 2019.

The purpose is to prove that implementing adequate quality elements has influenced passenger satisfaction. The main goal of survey taken was to compare the level of satisfaction with all the segments of service before and after acquisition of the company which will be shown periodically and parallel through the surveys carried out since 2013¹ (Medic et al, 2013: 81-90; Medic et al, 2013: 273-284) on sample of Panturist's passengers before the acquisition, and later on during the merger of Panturist, APP and Autotrans companies (2017), and 2018², a year after the merger. (Pancic et al, 2018: 146-150)

2. IMPLEMENTATION OF ELEMENTS FOR INCREASING QUALITY OF SERVICE

Some of the important elements that are implemented for the purpose of providing better quality services in bus transportation are:

- mandatory rules and procedures that are present in all processes,
- procurement of vehicles, i.e. „rejuvenation “of the fleet and its unification,
- change of organisational structure
- developing internal communication between the management and the Group
- using current skills and knowledge
- developing awareness of the importance of quality

By implementation of these elements, raising the level of quality in different business segments is achieved, which contributes to creation of the service of good quality.

In bus transportation, high importance is put on the safety of passengers and on reliability of the buses, and therefore it is important to establish three lines of quality control:

- Preventive check-ups in eight-week cycles,
- Internal audit twice a year

¹ The survey was published in paper Quality Measuring in the International Bus Transport Aimed at Increasing Competitive Advantage and paper Quality management in the function of public transport papers and the data will be used in this paper for the purpose of comparing the survey before and after the acquisition.

² The survey was published in Importance of Service Quality in a Company's regional development - challenges and opportunities paper and the data will be used in this paper for the purpose of comparing the survey before and after the acquisition.

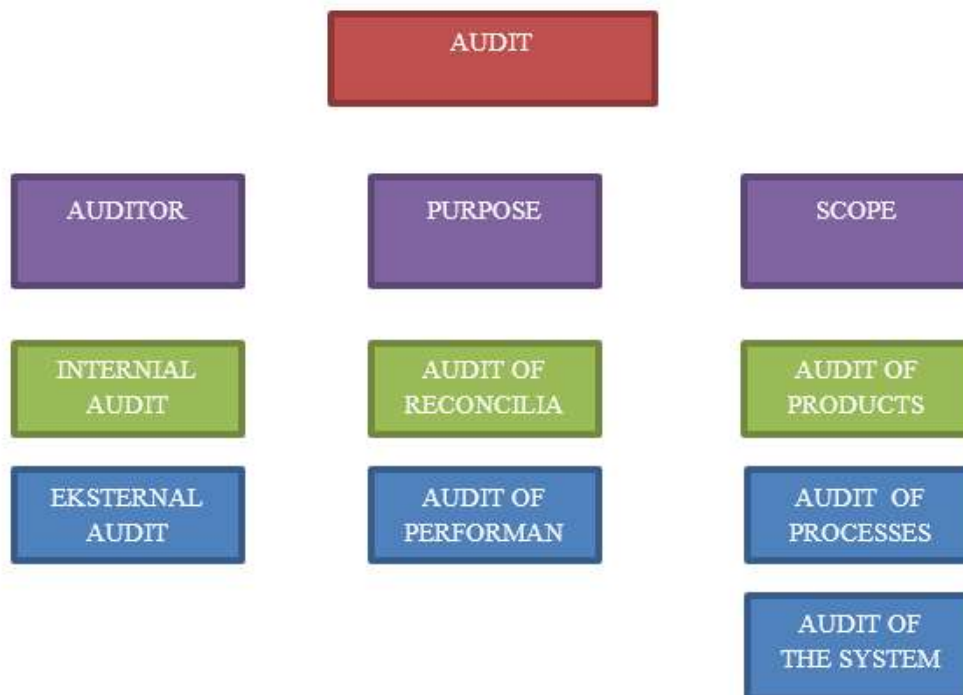
- Group audit once a year, which is done by random sample method
- Group audit of processes and procedures

Audit quality system as the element has significant importance in improving the level of quality in the organisation. Some of the goals of implementation and of continuous quality implementation are:

- determination of compliance of the management system in relation to requirements
- evaluation of the efficiency of the implemented management system
- detect non-compliance in processes
- assistance with fulfilling the requirements of the norms, i.e. rules, especially in the initial phase of implementation of quality management system
- collecting information that are necessary for evaluation of business management system from the side of the Board and Senior Management
- specific goals defined by the Board

In order for above mentioned goals to be realized, it is necessary to continuously carry out quality system audit, because otherwise the system will be inefficient, disharmonious, without clearly defined norms and goals where the employees will be demotivated for achieving the plans that influence both organisational and personal goals.

Figure 1. Audit of quality system



Source: <https://vdocuments.mx/4-upravljanje-kvalitetom-55b07dab8caf1.html> (Download date: 22.3.2019)

Figure 1 shows the type of audit for which previously has been explained in which time intervals it shall be conducted, as well as its purpose and scope. In order

to control quality in different segments, it is necessary to conduct audit of products, processes and systems.

By implementing quality system organisation achieves added value on the market where passengers recognize image as safety, reliability, accuracy, kindness, experience in their consciousness and creation of long-term trust in the company that provides service to them. On the other hand, the employees transfer their satisfaction both inside and outside organisation, creating quality culture. All of that contributes also to creating new opportunities on domestic and foreign market.

The value of satisfying the needs is divided into several segments, of which the most important are (Ruza & Dvorski, 2000:570):

- freedom to choose the type of transport;
- social and personal contacts;
- accuracy and regularity of traffic;
- safety and protection in traffic;
- satisfactory relation between price and quality;
- reliability;
- speed

Namely, the passenger that regularly uses bus transportation service has clearly defined needs and expectations. Meeting or fulfilling previously mentioned values is what determines quality of the service.

The importance of these values, management must transfer to all segments of organisation and to all employees, because awareness of the importance of mentioned values will stimulate organisation to changes that will improve the level of quality and satisfaction with service provided.

3. METHODOLOGY OF THE RESEARCH

First research has been conducted by using a questionnaire. The questionnaire has been conducted at the end of 2013 and at the beginning of 2014 on the sample of 363 passengers in the county, intercounty and international bus transportation of the company Panturist d.d. The questionnaire is compiled according to the questionnaire for SERVQUAL measure instrument, and for the needs of this work it has been adjusted according to the needs of bus transportation. For evaluation Likert scale was used, with range 1 to 5, instead of 1-7, due to the fact that in Croatia the most common evaluation range is from 1 to 5, so as such it would be easier and more acceptable for respondents. The questionnaire consists of eight general questions, out of which four are related to demographical characteristics of employees. Besides general questions, it contains the first group of 22 questions that are related to passenger expectations and the second group of questions that are related to the passenger perception.

In the second survey conducted in 2018, there has been in total 925 respondents included. The survey among clients of the companies of Arriva Hrvatska d.o.o. Group - Autotrans d.o.o., Autoprometno poduzeće d.d. and Panturist d.d. – has been conducted in the first half of 2018. The main goal of the survey conducted was to compare the level of satisfaction with all segments of the service before and after acquisition of the companies.

The third survey among clients of Arriva Hrvatska d.o.o. Group – Autotrans d.o.o., Autoprometno poduzeće d.d. i Panturist d.d. – was conducted at the beginning of 2019, also by using pen-and-paper method – the passengers have been give the questionnaire that they have been filling during their journey or after it, with remark that their answers relate to the current bus operator. In this case, as well as in 2018 it was a random sample. Besides the fact that here as well the goal was to determine the level of satisfaction with all segments of the services provided by Arriva Hrvatska Group by using SERVQUAL model, this questionnaire has served as an estimation of eventual changes created after certain time after acquisitions have been made, i.e. after affiliation of APP and Autotrans to Arriva Group. The instrument that was used for testing so called SERVQUAL model was completely identical to the one from the last year. The sample consisted of 451 respondents; although in the survey there have been 460 respondents included, but some of them, after later check, were excluded due to inconsistency of their answers or because of large number of unanswered questions.

3.1. Socio-demographic structure and results of the survey

During the 2013/2014 survey, the largest part of the examinees was of age 14-18 (28.8%). Group between age 18-30 was almost the same (28,4%). It was followed by group 50 years and older (22,4%). Second to last group consisted of examinees age between 30-50 years (18,4%), and the smallest group was the one with examinees up to age of 14 (18,9%).

In the survey conducted 2018 a bit more than one third of the examinees was between the age of 18-30 (34%), and the rest of the age groups were around 25% - people of age 30-50 years old constituted 26,1% of the survey, people up to age of 18 constituted 21,1% of the survey, and the examinees who were over 50 years old constituted around 18.9% of the survey. Employed and/or self-employed people (44,6%) and pupils and students (39,6%) were the most numerous groups of users. They are followed by retired people (almost 10% of the examinees, i.e. 9.6%), and unemployed people (6.2%). This examinees structure reflects the real structure of groupation's service users, i.e. it's clear from the analysis that pupils/students and employed people consist of around 85% of the bus service users. When it comes to the sex, 60,8% of the examinees were female and 39,2% were male. Females make the majority in all age groups, and it's most noticeable in the oldest age group - people older than 50 years (where they make 66.1% of the examinees), and the smallest difference is in the youngest age group - examinees up to 18 years old where they make 57,1% of the examinees. As expected, examinee's age determines the parts in married and working statuses. Last socially-demographic question was regarding the marital status. Unmarried people hold the largest share (43,1%), followed by married people (36,9%), and after that all possible categories of singles, including the widowers/dowagers (20.1%) follow. It should be noted that this is due to the fact that there is a large number of young people.

Regarding the socially-demographic characteristics, some basic indicators such as age, sex, work and marital status were surveyed. First as a sample quality control, and then as a criterion for further testing. Two groups dominated regarding their work

status: pupils and students (49,5%) and employed/self-employed people (33,9%). They are followed by retired people (8.9%), and unemployed people are next (7.7%). Same as in last year's survey, two most numerous groups make almost 85% of all of the examinees which is in accordance with the informations the groupation possess. Regarding the works status, it's expected that the young people dominate the survey, but people of age between 18-30 (41,6%) are the most numerous group. There are pupils and students in that group, but employed people also. Next one are people up to 18 years old (22.7%), then 30-50 years old (19.9%), and the least there are people older than age of 50 (15,8%). From this we can conclude that people up to age of 30 always make more than half of examinees because their percentage in the last survey was close to 60%, and it's almost 65% in this survey. Same as in previous surveys, according to the Graph 1 there were more female examinees, even slightly more than the last time - last time the ratio was 60.8% versus 39.2% in favour of females, but this year the ratio is even more dominant - 69% versus 31% in favour of females. This is also in accordance with the groupations current data. Last socially-demographic question was regarding the marital status. In accordance with the Graph 25 most numerous were unmarried people (50.7%), followed by all possible singles categories, including widowers/dowagers 25,2%). They are followed by married people 24,1%). Still, it should be noted that this is the result of the fact that there are a lot of young people.

In the further text, the results of the survey by stages will be shown, as well as their comparison before and after acquisition, and after certain period after acquisition of the companies has been made.

3.1.1. Comparison of the results 2014/2018

Table 1 shows comparison of research of satisfaction with the service in the set related to passenger expectations (2014 and 2018 Year).

Table 1. Statements in the SERVQUAL set "Expectations – ratios of response in percentages (%)"

	The arithmetic mean of the research results from 2014.	The arithmetic mean of the research results from 2018.	Difference
1. The buses we are driving in should have a clearly displayed company logo and be visible to passengers	4,28	4,40	0,12
2. The staff in the bus should be neat, clean and consistent with the company's dress code.	4,62	4,60	-0,02
3. Buses should have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)	4,34	4,35	0,01

4. The cleanliness of the bus should be on high level	4,58	4,68	0,1
5. Timetables should be regular and in accordance with regulations.	4,69	4,74	0,05
6. Timetables should be completely accurate so the passengers could come to the destination in time.	4,62	4,66	0,04
7. Driving personnel should always and frequently provide all relevant information so that passengers can be informed promptly.	4,62	4,54	-0,08
8. Driving personnel should provide passengers with all information at purchasing the tickets (price, timetables and other relevant information)	4,6	4,48	-0,12
9. Driving personnel should be ready to help anytime to the passengers with any type of problem they face.	4,5	4,35	-0,15
10. Bus companies should inform passengers in time of all changes and events related to public bus transportation.	4,66	4,57	-0,09
11. Driving personnel should assist passengers during loading and unloading of luggage on a daily basis.	4,42	4,38	-0,04
12. Driving personnel should quickly adjust to different type of passengers.	4,27	4,02	-0,25
13. Bus drivers should drive in a way that provides safety to the passengers.	4,66	4,66	0
14. Passengers should be able to rely on the driving staff.	4,62	4,67	0,05
15. Staff should answer professionally to the posed questions.	4,34	4,41	0,07
16. All employees of bus companies should be at equally high level of courtesy.	4,74	4,59	-0,15
17. Passengers should feel safe in the bus.	4,32	4,77	0,45
18. Driving personnel should show understanding for the passengers.	4,66	4,44	-0,22
19. Driving personnel should understand the real needs of passengers.	4,56	4,20	-0,36
20. Ticket sales should be accessible.	4,68	4,63	-0,05

21. Time of ticket sales should be adjusted to the passengers as much as possible.	4,47	4,48	0,01
22. There should exist the possibility of ticket purchase in the bus.	4,51	4,52	0,01
Total	99,76	99,14	-0,62

Source: Authors

According to the results from Table 1 passenger expectations in bus transportation have been higher in 2014 in comparison to 2018. In 2018 compared to 2014 the passengers expect higher level of security in driving, while they have decreased their expectations in the area of understanding their actual needs, understanding and adjustment.

In the next part, the table 2 with comparison of research of satisfaction with service in the set related to passenger perception will be shown from 2014 and 2018 Year.

Table 2. Claims in SERVQUAL set „Perception – ratios of response in percentages (%)”

	The arithmetic mean of the research results from 2014.	The arithmetic mean of the research results from 2018.	Difference
1. Panturist buses have clearly displayed logo	3,91	4,33	0,42
2. The staff in Panturist bus is always neat, clean and consistent with the company's <i>dress code</i> ..	4,37	4,44	0,07
3. Panturist buses have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)	3,36	3,43	0,07
4. The cleanliness of the Panturist buses is on high level	3,88	4,02	0,14
5. Panturist timetables are regular and in accordance with regulations.	3,99	4,04	0,05
6. Timetables of Panturist buses are completely accurate so the passengers could come to the destination in time.	3,97	4,06	0,09
7. Driving personnel in Panturist buses always and frequently provides all relevant information so	4,18	4,25	0,07

that passengers can be informed promptly.			
8. Driving personnel in Panturist buses provides passengers with all information at purchasing the tickets (price, timetables and other relevant information)	4,22	4,3	0,08
9. Driving personnel is ready to help anytime to the passengers with any type of problem they face.	4,06	4,29	0,23
10. Panturist informs passengers in time of all changes and events related to public bus transportation.	3,83	3,93	0,1
11. Driving personnel in Panturist assists passengers during loading and unloading of luggage on a daily basis.	4,1	4,46	0,36
12. Personnel in Panturist quickly adjusts to different type of passengers.	3,91	4,18	0,27
13. Bus drivers in Panturist buses drive in a way that provides safety to the passengers.	4,16	4,43	0,27
14. Passengers are always able to rely on the driving staff.	4,16	4,41	0,25
15. Staff in Panturist answers professionally to the posed questions.	3,98	4,28	0,3
16. All employees of Panturist that I have been in contact with are at equally high level of courtesy.	4,23	4,14	-0,09
17. Passengers feel safe in Panturist buses.	3,81	4,45	0,64
18. Driving personnel is showing understanding for the passengers.	3,44	4,46	1,02
19. Personnel in Panturist understands the real needs of passengers.	3,94	4,24	0,3
20. Ticket sales in Panturist buses is accessible.	3,85	4,4	0,55
21. Time of ticket sales is adjusted to the passengers.	3,86	4,29	0,43
22. There exists the possibility of ticket purchase in the bus.	4,02	4,51	0,49
Total	87,23	93,34	6,11

Source: Authors

According to the results from the Table 2, perception of passengers in bus transportation has improved in comparison to 2014. In each segment it came to higher level of satisfaction, except in the segment of affability of the staff, which was described by „All employees of Panturist that I have been in contact with are at equally high level of courtesy “. It is visible that the passengers are more satisfied after acquisition of the companies, and the level on which the company should work on is education of employees on relationship with clients.

3.1.2. Comparison of the results 2018/2019

In order to test the differences between the survey from 2018 and survey from 2019, in the following table arithmetic means for all statements and given dimensions are compared in Table 3.

Table 3. Statements and dimensions of SERVQUAL set „Expectations“
(Comparison of the researches from 2018 and 2019) – Arithmetic means

	Arithmetic mean 2018	Arithmetic mean 2019
TANGIBLE ELEMENTS (MATERIAL CONDITIONS)		
1. The buses we are driving in should have a clearly displayed company logo and be visible to passengers	4,40	4,56
2. The staff in the bus should be neat, clean and consistent with the company's dress code.	4,60	4,71
3. Buses should have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)	4,35	4,51
4. The cleanliness of the bus should be on high level.	4,68	4,73
<i>Average dimension value</i>	<i>4,51</i>	<i>4,63</i>
RELIABILITY		
5. Timetables should be regular and in accordance with regulations.	4,74	4,83
6. Timetables should be completely accurate so the passengers could come to the destination in time.	4,66	4,72
7. Driving personnel should always and frequently provide all relevant information so that passengers can be informed promptly.	4,54	4,62
8. Driving personnel should provide passengers with all information at	4,48	4,54

purchasing the tickets (price, timetables and other relevant information)		
<i>Average dimension value</i>	<i>4,61</i>	<i>4,68</i>
AFFABILITY		
9. Driving personnel should be ready to help anytime to the passengers with any type of problem they face.	4,35	4,36
10. Bus companies should inform passengers in time of all changes and events related to public bus transportation.	4,57	4,67
11. Driving personnel should assist passengers during loading and unloading of luggage on a daily basis.	4,38	4,40
12. Driving personnel should quickly adjust to different type of passengers.	4,02	3,90
<i>Average dimension value</i>	<i>4,33</i>	<i>4,33</i>
COMPETENCE AND PASSENGER TRUST		
13. Bus drivers should drive in a way that provides safety to the passengers.	4,66	4,67
14. Passengers should be able to rely on the driving staff.	4,67	4,69
15. Staff should answer professionally to the posed questions.	4,41	4,42
16. All employees of bus companies should be at equally high level of courtesy.	4,59	4,61
17. Passengers should feel safe in the bus.	4,77	4,82
<i>Average dimension value</i>	<i>4,62</i>	<i>4,64</i>
ADJUSTMENT TO PASSENGERS		
18. Driving personnel should show understanding for the passengers.	4,44	4,44
19. Driving personnel should understand the real needs of passengers.	4,20	4,21
20. Ticket sales should be accessible.	4,63	4,74
21. Time of ticket sales should be adjusted to the passengers as much as possible.	4,48	4,55
22. There should exist the possibility of ticket purchase in the bus.	4,52	4,59
<i>Average dimension value</i>	<i>4,45</i>	<i>4,51</i>

Source: Authors

Although it seems that, when looking generally the Table 3, there are no special differences, at totally 7 variables, statistically significant differences are determined ($p=0,05$). In all these cases it has been determined that the expectations have even risen, except at variable “Driving personnel should quickly adjust to different type of

passengers”, where the expectation has even somewhat decreased. When looking at the numbers, the biggest difference between arithmetical means has been noticed at two variables: “The buses we are driving in should have a clearly displayed company logo and be visible to passengers” and „Buses should have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)“, and if we are looking the dimensions, it is visible that this difference appeared at almost all variables that were measuring the dimension „Tangible elements“, i.e. in 3 out of totally 4 cases. On the other side, not one variable mentioned in this table has been part of the dimension „Competence and passenger trust “.

It is visible in table 3 that the average dimension value in the set „Expectations“ increased in 2019 in comparison with 2018.

Table 4. Statements of SERVQUAL set „Expectations“ at which statistically significant differences between results from 2018 and 2019 have been determined ($p < 0,05$)

	Arithmetic mean 2018	Arithmetic mean 2019	value
1. The buses we are driving in should have a clearly displayed company logo and be visible to passengers	4,40	4,56	11,612
2. The staff in the bus should be neat, clean and consistent with the company's dress code.	4,60	4,71	22,721
3. Buses should have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)	4,35	4,51	13,179
5. Timetables should be regular and in accordance with regulations.	4,74	4,83	26,351
10. Bus companies should inform passengers in time of all changes and events related to public bus transportation.	4,57	4,67	16,881
12. Driving personnel should quickly adjust to different type of passengers.	4,02	3,90	4,358
20. Ticket sales should be accessible.	4,63	4,74	22,797

Source: Authors

Regarding the dimensions, it can be said that in the Table 4 very significant and clear difference between passenger expectations in relation to the first dimension "tangible elements" has been determined. Namely, while in 2018 the arithmetic mean of all variables included in that dimension amounted 4,51, in repeated survey in 2019 that value amounted to 4,63. Out of that it can be concluded that the clients have increased their expectations in relation to this dimension, i.e. that their expectations are growing and that they are expecting higher standard in relation to this. At the other

dimensions, there were no significant changes noted, i.e. the expectations have remained on approximately same level.

Table 5. Average values of SERVQUAL dimensions „Expectations“ – researches from 2018 and 2019 ($p < 0,05$)

AVERAGE DIMENSION VALUES	Arithmetic mean 2018	Arithmetic mean 2019
TANGIBLE ELEMENTS (MATERIAL CONDITIONS)	4,51	4,63
RELIABILITY	4,61	4,68
AFFABILITY	4,33	4,33
COMPETENCE AND PASSENGER TRUST	4,62	4,64
ADJUSTMENT TO PASSENGERS	4,45	4,51

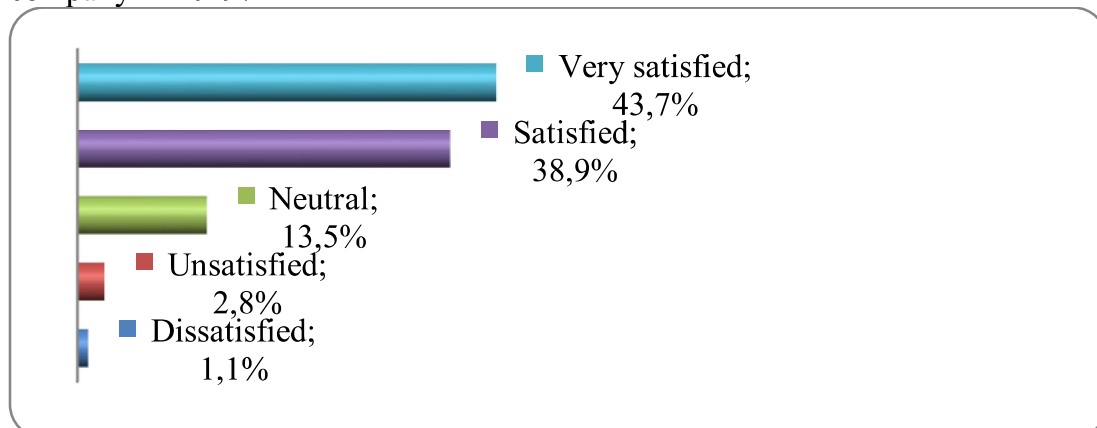
Source: Authors

In Table 5 it is visible, according to average arithmetic mean values, that the expectations in 2019 are higher in comparison to 2018.

According to the Table 5, the largest gap is when it comes to palpable elements of the service, meaning that the passengers have increasing demands regarding the journey experience. They want more content in the buses during their journeys which would make them unique. One of the elements is younger vehicle fleet which will have richer journey content, they also want to “freshen up” the logo and dress code in accordance with the seasonal offers.

The next question in questionnaire was „How satisfied are you by service provided by this bus transportation company?“, on which respondents could have answered by note in the range from 1 to 5 and by that to express their total satisfaction by transportation company by which the survey was taken. Looking in total, again over 80% respondents have declared that they are satisfied by service – out of which 38,9% are generally satisfied, and even more of them, 43,7%, are very satisfied. Those that are completely dissatisfied represent about 4%, and not satisfied nor dissatisfied 13,5%.

Graph 1. „How satisfied are you by service provided by this bus transportation company in 2019? “



Source: Authors

If we compare these results from 2019 with the ones from the previous 2018, they are almost identical, and very similar situation is when we look at the central tendency measures: in last year's survey, arithmetic mean of this variable amounted to 4,15, median 4,00, and standard deviation amounted to 0,909. According to this year's results, arithmetic mean is now somewhat higher – 4,21, median also amounts to 4,00, and standard deviation 0,862.

Table 6. Statements and dimensions of SERVQUAL set „Perception“(comparison of researches from 2018 and 2019) – arithmetic means

	Arithmetic mean 2018	Arithmetic mean 2019
TANGIBLE ELEMENTS (MATERIAL CONDITIONS)		
1. Buses of this transportation company have clearly displayed logo	4,33	4,56
2. The staff in this transportation company's bus is always neat, clean and consistent with the company's <i>dress code</i> ..	4,44	4,58
3. Buses of this transportation company have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)	3,43	3,25
4. The cleanliness of the buses of this transportation company is on high level	4,02	4,00
<i>Average dimension value</i>	4,06	4,10
RELIABILITY		
5. Timetables of this transportation company are regular and in accordance with regulations.	4,04	4,24
6. Timetables of this company's buses are completely accurate so the passengers could come to the destination in time.	4,06	4,17
7. Driving personnel in buses of this transportation company always and frequently provides all relevant information so that passengers can be informed promptly.	4,25	4,32
8. Driving personnel in buses of this transportation company provides passengers with all information at purchasing the tickets (price, timetables and other relevant information)	4,30	4,34
<i>Average dimension value</i>	4,16	4,27
AFFABILITY		
9. Driving personnel is ready to help anytime to the passengers with any type of problem they face.	4,29	4,35

10. This transportation company informs passengers in time of all changes and events related to public bus transportation.	3,93	4,10
11. Driving personnel in this transportation company assists passengers during loading and unloading of luggage on a daily basis.	4,46	4,57
12. Personnel in this transportation company quickly adjusts to different type of passengers.	4,18	4,20
<i>Average dimension value</i>	4,22	4,31
COMPETENCE AND PASSENGER TRUST		
13. Bus drivers in buses of this company drive in a way that provides safety to the passengers.	4,43	4,50
14. Passengers are always able to rely on the driving staff.	4,41	4,48
15. Staff in this company answers professionally to the posed questions.	4,28	4,33
16. All employees of this company that I have been in contact with are at equally high level of courtesy.	4,14	4,14
17. Passengers feel safe in this company's buses.	4,45	4,47
<i>Average dimension value</i>	4,34	4,38
ADJUSTMENT TO PASSENGERS		
18. Driving personnel of this bus is showing understanding for the passengers.	4,46	4,54
19. Personnel of this transportation company understands the real needs of passengers.	4,24	4,28
20. Ticket sales in the buses of this transportation company is accessible.	4,40	4,48
21. Time of ticket sales is adjusted to the passengers.	4,29	4,33
22. There exists the possibility of ticket purchase in the bus.	4,51	4,57
<i>Average dimension value</i>	4,38	4,44

p<0,05

Source: Authors

As it can be seen, significant differences appeared at 7 variables. The same as at the part of questionnaire that measures "Expectations", here also it is primarily about variables that measure "Tangible elements", i.e. material conditions, equipment and similar.

In all variables shown below, it is about higher arithmetic means, and with that also the higher perception (in this case higher satisfaction) of certain services, except the statement "Panturist buses have all necessary inventory so the passengers could have as interesting travel as possible (WC, internet, TV and similar.)" where the arithmetic mean is statistically significantly lower, which brings to the conclusion that the satisfaction in this case has been decreased.

Table 7. Statements of SERVQUAL set Perception at which statistically significant differences between the results from 2018 and 2018 have been determined ($p < 0,05$)

	Arithmetic mean 2018	Arithmetic mean 2019	F value
1. Buses of this transportation company have clearly displayed logo	4,33	4,56	31,795
2. The staff in this transportation company's bus is always neat, clean and consistent with the company's <i>dress code</i> ...	4,44	4,58	15,110
3. Buses of this transportation company have all necessary inventory so the passengers could have as interesting travel as possible (WC, Internet, TV and similar.)	3,43	3,25	7,440
5 Timetables of this transportation company are regular and in accordance with regulations...	4,04	4,24	1,152
6. Timetables of this company's buses are completely accurate so the passengers could come to the destination in time.	4,06	4,17	0,126
10. This transportation company informs passengers in time of all changes and events related to public bus transportation.	3,93	4,10	3,142
11. Driving personnel in this transportation company assists passengers during loading and unloading of luggage.	4,46	4,57	10,690

Source: Authors

According to the Table 7 in which mentioned statements are linked to "Expectations" and if it is compared about which variables it is about, it is visible that it is generally about the same variables for which therefore we can say that the expectation has increased, but also the perception.

It can be concluded that in regard of some things the market, i.e. the users, has become more demanding, i.e. that higher and higher level of service is expected.

Regarding the comparison of dimensions, in comparison with the last year's research, higher results – expressed as arithmetic means – are noticeable at all dimensions, but significant differences are noticeable only in the case of two dimensions "Reliability" and "Affability". Although, when looking in total, it can be said that the clients have expressed somewhat higher satisfaction in this research in comparison with the research from 2018.

Table 8. Average values of SERVQUAL dimensions „Perception“ – researches from 2018 and 2019 ($p < 0,05$)

AVERAGE DIMENSION VALUES	Arithmetic mean 2018	Arithmetic mean 2019
TANGIBLE ELEMENTS (MATERIAL CONDITIONS)	4,06	4,10
RELIABILITY	4,16	4,27
AFFABILITY	4,22	4,31
COMPETENCE AND PASSENGER TRUST	4,34	4,38
ADJUSTMENT TO PASSENGERS	4,38	4,44

Source: Authors

What is the key element in this model is that it takes into consideration that the clients not all characteristics of service provided are of the same importance, i. e. For some elements they do not have big expectations, nor they think that some of the characteristic of the service should be “perfect” or of extremely good quality, and it is possible that the clients some of the moments of the service simply do not consider necessary (for instance it is possible that for the high number of clients, instant arrival of the salesmen in some shop with the question “Can I help you?” or “Are you looking for something special?” it is simply not necessary. Although, in practice and in literature reviewed, such situations rarely happen and usually the expectations are generally higher than the perception of current state.

4. CONCLUSION

For the organisation it is of extreme importance to implement the quality standards because they are bringing products/services at the higher level, and by that they create trust from the side of the clients. The higher level the quality of service exists, the cost significantly decreases for the organisation, because the clients are satisfied and there are no reclamations, complaints and eventual legal cases. The more clients' satisfaction is spread, the more frequent use of the service is, and the revenues of the organisation increase. Managing business processes is conditioned by understanding of all parts, but also of the people that manage these processes or conduct them.

Besides tangible elements that are important for raising the quality of the service, many transportation companies do not attach great importance to the elements such as kindness, taking care of loyalty, culture and similar, exactly for the reason they are invisible and for that reason they are considered irrelevant, which as the result contributes to the bad positioning on the market and creating favourable climate for those transportation companies that have understood and that are taking corrective actions and are working each day on improving the quality of the service provided. The results of the research show that the passengers are more satisfied by service provided after the acquisition, although they are showing that it shall be worked on intangible elements of the service. The results are supporting the fact that the company

has improved its service by implementing the key elements that influenced the level of the service, and finally on the satisfaction of passengers. Further research in 2019 show that the expectations of passengers increased in comparison to the previous year and it supports the fact that of extreme importance is to continuously work on improving quality of the service. Research also shows that the passenger satisfaction increased in comparison to the previous year 2018, which is the result of investing in human resources, business processes and procedures, as well as in tangible elements of the service. According to that, hypotheses set confirm that after the acquisition in bus transportation it comes to increase of the quality of the service and that the gap between perception and expectations has decreased.

The largest gap is shown in palpable elements when comparing surveys of average values of all dimensions in 2019 compared to 2018. This information indicates that there is still open issue when it comes to the development strategy of investing into these elements, as well as additional passengers surveys what is the most important thing to them when it comes to investing in order to come closer to passenger's real desires and needs. Further surveys should be based on getting to know passengers needs and creating development strategy of these dimensions. New passenger survey on transport service satisfaction is recommended after increasing the service quality, with special focus on elements where the largest gap was during the last survey.

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