Research of student satisfaction with service of higher education

4 authors, including:

Tatjana Janovac
University Business Academy in Novi Sad
47 PUBLICATIONS   **71** CITATIONS

RESEARCH ON STUDENT SATISFACTION WITH SERVICE OF HIGHER EDUCATION

TATJANA JANOVAC, Faculty of Applied Management, Economy and Finance, Belgrade
ĐURĐICA VUKAJLOVIĆ, Faculty of Applied Management, Economy and Finance, Belgrade
MILUTIN PEĆIĆ, Faculty of Applied Management, Economy and Finance, Belgrade
SRĐAN NOVAKOVIĆ, Faculty of Applied Management, Economy and Finance, Belgrade

Summary: *Under conditions of general globalization, higher education institutions should develop mechanisms for sustainable development and success in the competitive academic area. Designing a quality management system is the basis for continuous improvement of services, as well as recognition of obligations towards the users. In order to reach its goals, a higher education institution should offer continuously improving values to its users. Understanding, meeting and exceeding the needs and expectations of higher education users is of utmost importance for gaining competitive advantage, positioning in the academic area, sustainable development, and thus, reaching sustainable success.*
The aim of the research presented in this paper is to emphasize the significance of implementation of the quality management system model as an efficient tool for quality assurance in the educational process, improving higher education service and achieving satisfaction of the users. Such an approach enables the management structure of a higher education institution to maintain continuous monitoring of the key parameters of its business activities, and make decisions in the field of constant quality improvement.
Key words: *quality management system, a higher education institution, users, students, satisfaction, sustainable success.*

1. INTRODUCTION

One of the key issues that are nowadays raised in the area of higher education is "sustainable development" i.e. "sustainable success" of a higher education institution.

The term "sustainable development" can refer to the constant improvement of and innovations in the achieved results with the aim of improving satisfaction of the higher education users. Achievement of sustainable development implies achievement of sustainable success of a higher education institution in a complex, demanding and changeable environment.

The main idea and purpose of this research was to explore satisfaction of the higher education service users.

Research within the framework of this paper indicates the importance of implementation of the quality management system model as an efficient tool for quality assurance in the educational process, improvement of the higher education service and achievement of user satisfaction.

2. RESEARCH PROGRAM

Place and conditions of research

The research program included three higher education institutions: College of Applied Sciences, Belgrade Polytechnics, Technical College of Applied Sciences, Novi Sad, Academy of Diplomacy and Security, Belgrade. Two of the above institutions belong to a state-funded sector while the Academy of Diplomacy and Security, Belgrade is a privately-funded higher education institution. All three higher education institutions implement a quality management system.

For the requirements of this research, the following secondary data were used**:**

1. Report on the institution evaluation by students for the school year 2012/2013, College of Applied Sciences, Belgrade Polytechnics [4],
2. Presentation of the results of self-evaluation for the school year 2012/2013, Technical College of Applied Sciences, Novi Sad [3],
3. Report on self-evaluation for the school year 2012/2013, Academy of Diplomacy and Security [2].

Methodology of research

Descriptive research was applied for the purpose of obtaining response regarding student satisfaction with the quality parameters of the institution. The parameters were examined by means of a comparative analysis of secondary data as a synthesis of individual values.

Namely, application of the descriptive research enabled obtaining response to the question:

What is the level of student satisfaction with service of higher education?

The strategy of research is based on a combination of quantitative and qualitative methods.

Sample description

- College of Applied Sciences-Belgrade Polytechnics (the sample equals 406 students in the population of 1391, the relevance and significance of the sample has been achieved);
- Academy of Diplomacy and Security (the sample equals 186 filled-in surveys);
- Technical College of Applied Sciences (the sample varies from 20 to 157 respondents depending on the parameter).

Testing and hypotheses analysis

The basic (null) hypothesis was presented, reading:

H0*: Establishment of a quality management system makes it possible for the higher education user to achieve satisfaction and for the higher education institution to reach sustainable success.*

Satisfaction of the higher education user is possibly achieved through the fulfilment of several parameters:

- The level of satisfaction with the quality of the program of study;
- The level of satisfaction with the work of the non-teaching staff (administrative office and student services);
- The level of satisfaction with the level of technical equipment of the work area and library;
- The level of satisfaction with the quality of work of the teaching staff
- The level of satisfaction with the quality of the teaching process.

Sustainable success of a higher education institution is achieved by means of reaching certain levels of satisfaction with the quality of the above stated items. After that, it is possible to work on improvement of the satisfaction level if there is room for improvement as defined through the QMS (Quality Management System) structure. The above stated five quality parameters were tested on a sample of three higher education institutions.

FWER (familywise error) test was previously carried out in order to determine the probability of incorrect rejection of at least one null hypothesis in a comparison group. As the Student's t-test should be used to analyse means of three institutions, FWER formula (1) is to be applied in the following way:

$$FWER = 1 - (1 - 0.05)^m = 1 - (1 - 0.05)^3 = 1 - 0.857 = 0.143 = 14\%$$

(1)

The limit values which are necessary for conducting this test are $0 \leq FWER \leq \alpha$, where α is a minimum limit value that denotes probability of the type I error, and it equals $\alpha = 0.142525$.

The probability of making FW error is 14%, which is a permitted value (within the stated limits), so that reliability of the results of this comparison could be ensured.

3. RESEARCH RESULTS

1) The level of satisfaction with the program of study:

As regards testing of the first parameter, the three observed institutions made the reports on self-evaluation in different ways. Accordingly, in the report on the institution evaluation by students that was carried out for the school year 2012/2013 in the Belgrade Polytechnics, table 1 is presented:

Table 1 - Testing of variables related to the level of satisfaction with the quality of the program of study in the Belgrade Polytechnics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Availability of information on the program of study /major	402	1	5	3.97	.98
Gaining general knowledge	404	1	5	3.86	.92
Gaining professional knowledge and skills	401	1	5	3.74	1.00
Schedule (sequence and connection) of subjects per years at the program of study /major	397	1	5	3.45	1.16
Valid N (listwise)	394				

A high level of match between all variables except for the schedule of subjects per years (the highest value of standard deviation) is noticeable.

Then, in the Technical College of Applied Sciences, only the variables the level of theoretical knowledge and the level of practical knowledge (corresponding to the variables "gaining general knowledge" and "gaining professional knowledge and skills") were assessed. The results from the report are presented in table 2. It can be noted that the satisfaction with the level of theoretical knowledge (mean of the responses on the scale of 1 to 5 is 4.5; standard deviation is 0.51) is higher than satisfaction with the level of practical knowledge (mean is 3.25; standard deviation is 0.44).

Table 2 - Testing of the parameter in the Technical College of Applied Sciences

Variable	5	4	3	2	1	Average score
Level of theoretical knowledge	10	10	0	0	0	4.50
Level of practical knowledge	0	5	15	0	0	3.25

And finally, as regards the Academy of Diplomacy and Security, the variables such as "organizational unit structure" and "organization of work" which can be correlated to the schedule of subjects per years at the program of study /major were observed. A high level of satisfaction with the above mentioned variables can be noted (mean of this parameter is 4.09).

Table 3 - Testing of the parameter at the Academy of Diplomacy and Security

Variable	Mean
Organization of work	4.16
Organizational unit structure	4.02
Mean	**4.09**

It was necessary to compare the means measured in all three institutions in order to defend the importance of analysis of the first (out of five) parameter. Analysis of the means using Student's t-test with 2 degrees of freedom was implemented for this purpose. Firstly, the means of the variables "gaining general knowledge" and "the level of theoretical knowledge" were compared and the

probabilities of significance which correspond to the t-test values are shown in table 4.

Table 4 - Probabilities of the samples significance after Student's t-test of the parameter the level of satisfaction with the quality of the programs of study (first part).

Limit value	t-test value	Probability of the sample significance
1	9.93	0.49%
2	6.81	1.04%
3	3.68	3.32%
4	0.56	**31.59%**
5	-2.56	**93.76%**

Afterwards, the means of the variables "gaining professional knowledge and skills" and "the level of practical knowledge" were compared, and the probabilities of significance which correspond to the t-test values are shown in table 5.

Table 5 - Probabilities of the samples significance after Student's t-test of the parameter the level of satisfaction with the quality of the programs of study (second part)

Limit value	t-test value	Probability of the sample significance
1	10.18	0.47%
2	6.1	1.29%
3	2.02	9.04%
4	-2.06	**91.22%**
5	-6.14	**98.72%**

Then, comparison was made between the means of the variable "schedule of subjects per years at the program of study /major" and related means of two variables from the Academy of Diplomacy and Security. The probabilities of significance which correspond to the t-test values are shown in table 6.

Table 6 - Probabilities of the samples significance after the Student's t-test of the parameter the level of satisfaction with the quality of the programs of study (third part)

Limit value	t-test value	Probability of the sample significance
1	8.65	0.65%
2	5.53	1.55%
3	2.40	6.92%
4	-0.71	**72.43%**
5	-3.84	**96.91%**

After analysis of the probabilities of significance in all three cases, it can be concluded that the level of satisfaction with the quality of the programs of study in all three institutions is as required and sufficient. (Probabilities which correspond to the limit values "4" and "5" confirm that the level requested for certain parameter is fully accomplished).

2) The level of satisfaction with the quality of work of the non-teaching staff:

Descriptive Statistics					
	N	Min	Max	Mean	Standard deviation
Student services working time	402	1	5	2.50	1.203
Readiness of the student services employees to provide services within the set time limits	398	1	5	2.99	1.243
Willingness of the student services employees to assist students with their requirements	401	1	5	2.92	1.274
Attitude of the student services employees towards students	399	1	5	2.87	1.308
Valid N (listwise)	393				

It can be calculated that the mean of the responses to the question on the overall satisfaction with the operation of the student services is 2.82, while standard deviation (agreement in the respondents' responses) is 1.25.

Table 8 - Testing of variables related to operation of the student services in the Technical College of Applied Sciences

Variable	Mean
Attitude of the staff	4.2
Period of responding	3.92
Data accuracy	4.08
Working time	3.92
Service price	3.75
Information process	3.92
Mean of the student services	**3.96**

Table 9 - Testing of the second parameter in the Academy of Diplomacy and Security

Variable	Mean
Operation of student organizations	3.59
Operation of student services	**4.44**

As regards testing of the second parameter, the three observed institutions made the reports on self-evaluation in a different way. Accordingly, the following three tables are presented:

Table 7 - Testing of variables related to operation of the student services in the Belgrade Polytechnics

It is necessary to compare the means measured in all three institutions in order to defend significance of analysis of the second (out of five) parameter. For this purpose, analysis of the means using Student's t-test was applied. Means (per limit values 1, 2, 3, 4 and 5) were tested first in order to find the limit value to which the three tested means correspond most. The value of the Student's t-test was obtained as a report from SPSS. It was necessary to subsequently transform this value by calculations into the value of probability of the sample significance - *p*. The probabilities of significance which correspond to the values of the t-test are shown in table 10.

Table 10 - Probabilities of the samples significance after Student's t-tests of the parameter the level of satisfaction with the work of the non-teaching staff

Limit value	t-test value	Probability of the sample significance
1	5.70	1.4%
2	3.62	3.4%
3	1.54	13.1%
4	-0.54	**67.8%**
5	-2.62	**93.99%**

It can be noticed after table analysis that the probability of significance of the three means (from three observed institutions) rises with the rise of the test limit value. Values "4" and "5" are the limit values that are desirable for the null hypothesis to be satisfied, with respect to the second parameter testing. As the probability of significance for all three samples amounts to 67.8%, for the limit value "4", and 93.99%- for the test limit value "5", it can be concluded that the level of satisfaction with the quality of work of the non-teaching staff is on the required level (Technical College of Applied Sciences and Academy of Diplomacy and Security) and on the sufficient level (Belgrade Polytechnics).

3) The level of satisfaction with technical equipment of the working area and library:

In regard of testing of the third parameter, the three observed institutions prepared the reports on self-evaluation in different ways. Accordingly, the following three tables are presented:

Table 11- Testing of the quality level of the working area and library in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Technical equipment of the teaching premises	402	1	5	3.23	1.18
Conditions of work in relation to the existing equipment (number of computers per a student)	399	1	5	3.23	1.23
Conducting of teaching activities on several locations	397	1	5	2.94	1.33
Microclimatic conditions (lighting, heating, air-conditioning)	401	1	5	3.83	1.07
Valid N (listwise)	393				

The result of the above table is the following table 12 which provides an overall assessment of the quality level of the working area and library in the Belgrade Polytechnics.

Table 12 - Mean of the variable "the quality level of the working area and library" in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Working area quality	403	1.00	5.00	3.3071	.9391
Valid N (listwise)	403				

Regarding the level of technical equipment of the working area and library, the following table 13 presents the report on the related variables.

Table 13 - The level of technical equipment of the working area and library in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Coverage of subjects with literature	402	1	5	3.85	.96
Up-to-date content of the library holdings	400	1	5	3.82	.92
Availability of presentations, bases of magazines and other publications in a digital form	399	1	5	3.97	.95
Reading room equipping with computers	400	1	5	3.87	1.01
Working time of the library	400	1	5	4.20	.93
Working conditions in the reading room	397	1	5	3.80	1.06
Attitude of the library staff towards the students	392	1	5	4.45	.79
Valid N (listwise)	386				

The result of the above table 13 is the following table 14 which provides an overall assessment of the level of technical equipment of the library in the Belgrade Polytechnics.

Table 14 - Mean of the variable "the level of technical equipment of the working area and library", in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Quality of library and information resources	403	1.57	5.00	3.9962	.6757
Valid N (listwise)	403				

As for the Technical College of Applied Sciences, the quality level of the working area was assessed through the following variables, as presented in table 15.

Table 15 - The quality level of the working area and library in the Technical College of Applied Sciences

Variable	Mean
Conditions pertaining to the area	3.63
Library and accompanying premises and facilities	4.07
Computers, copy machines	3.78
Foils, video presentations	4.50
Textbooks, scripts, manuals etc.	4.37
Students' premises	3.72
Bulletin boards, school website	3.78
How do you assess the working conditions in the school	4.26
Mean of the entire parameter	**4.33**

Then, the level of technical equipment of the library was assessed, as presented in table 16.

Table 16 - The level of technical equipment of the working area and library in the Technical College of Applied Sciences

Variable	Mean
Attitude of the staff	4.0
Period of response to the requirement for service	4.25
Method of informing of the procurement of a library item	3.67
Working time	4.2
Working conditions	3.83
Process computerisation	4.13
Mean of assessment of all variables	**4.01**

Finally, for the Academy of Diplomacy and Security, the assessments of both variables are presented by table 17 (for the difference from the above two institutions, a detailed review of these variables is not presented in the report on self-evaluation).

Table 17 - Mean of the level of technical equipment and operation of the library in the Academy of Diplomacy and Security

Variable	Mean
Operation of the library	4.1
Technical equipment of the area	3.95

It is necessary to compare means measured in all three institutions in order to defend validity of testing of the third (out of five) parameter. Analysis of the means of the assessed level of technical equipment of the working area and library on one hand, and the quality level of working area, on the other hand, was implemented for this purpose. Student's t-test was used in both processes for testing the probabilities of the samples significance, which are required for acceptance of the null hypothesis.

In the first process, the quality level of the working area and library in the Belgrade Polytechnics was analysed using Student's t-test with 2 degrees of freedom. The limit values ranged from "1" to "5", and the values of the t-test were transformed by calculation into the probability of the sample significance. Probabilities of significance of the tested means which correspond to the t-test values are shown in table 18.

Table 18 - Probabilities of the samples significance after Student's t-test (of the variable "the quality level of the working area and library)

Limit value	t-test value	Probability of the sample significance
1	9.53	0.5%
2	6.20	1.2%
3	2.87	5.14%
4	-0.45	**65.16%**
5	-3.78	**96.82%**

In the second process, the level of satisfaction with the technical equipment of the working area and library was tested using Student's t-test with limit values ranging from "1" to "5", with 2 degrees of freedom. Probabilities of significance of the tested means, which correspond to the t-test values, are shown in table 19.

Table 19 - Probabilities of the samples significance after Student's t-test of the variable the level of satisfaction with the technical equipment of the working area and library

Limit value	t-test value	Probability of the sample significance
1	169.13	0.001%
2	112.44	0.003%
3	55.75	0.01%
4	-0.94	**77.6%**
5	-57.64	**99.98%**

After analysis of both processes of testing of probabilities of the samples significance, it can be stated, with the probability of 65.16% (for the quality level of the working area) and 77.6% (for the level of satisfaction with the technical equipment of the working area and library) that the three assessed institutions satisfy sufficient quality level (point "4" on the scale), and that they also satisfy, with the probability of 99.82% (for the quality level of the working area) and 99.98% (for the level of satisfaction with the technical equipment of the working area and library), the required level of quality related to these two variables (point "5" on the scale, perfect level of satisfaction).

4) The level of satisfaction with the quality of work of the teaching staff:

As far as testing of the fourth parameter is concerned, the three observed institutions prepared the reports on self-evaluation in different ways. Accordingly, the following tables are presented:

Table 20 - Testing of means of the variables related to the quality of work of the teaching staff in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Correct teacher/student relationship (respect)	402	1	5	4.21	.90
Consistence of teachers in conveying content of the subjects	402	1	5	4.06	.83
Capability of the teachers to convey content of the subjects	403	1	5	3.96	.88
Valid N (listwise)	399				

The result of the previous table is table 21 which shows mean of all variables related to the fourth parameter.

Table 21 - Mean of the tested variables related to the quality of work of the teaching staff in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Teaching staff	404	1.00	5.00	4.0743	.7552
Valid N (listwise)	404				

Then, the means of the variables related to the level of satisfaction with the work of the teaching staff in the Technical College of Applied Sciences are shown in table 22.

Table 22 - Testing of the means of variables related to the level of satisfaction with the work of the teaching staff in the Technical College of Applied Sciences

Variable	Mean
Efforts aimed at improvement of the program of study	3.28
Initiating development of cooperation with business organizations	3.47
Readiness for changes	3.82
Timely decision making	3.5
Investment into equipment in the aim of improvement of the practical part of teaching	3.91
Communication/interpersonal relations	3.94
Cooperation with teachers	3.72
Total mean of variables	**3.66**

Finally, the variables which are related to the assessment of the fourth parameter in the Academy of Diplomacy and Security (report on self-evaluation in this institution has not presented these variables in more detail) are also shown in table 23.

Table 23 - Testing of the means of variables related to assessment of the level of satisfaction with work of the teaching staff in the Academy of Diplomacy and Security

Variable	Mean
Quality of teaching	4.47
Modernization of teaching	4.24
Mean	**4.35**

It is necessary to compare the means measured in all three institutions in order to defend validity of the fourth (out of five) parameter. For this purpose, analysis of the means, using Student's t-test with 2 degrees of freedom, was implemented. Probabilities

of significance of the tested means which correspond to the t-test values are shown in table 24.

Table 24 - Probabilities of the samples significance after Student's t-test of the level of satisfaction with the parameter the quality of work of the teaching staff

Limit value	t-test value	Probability of the sample significance
1	15.10	0.2%
2	10.11	0.4%
3	5.12	1.8%
4	0.133	**45.31%**
5	-4.85	**98%**

Analysis of the probability of the sample significance leads to the satisfactory conclusions: probability of 45.31% corresponds to the limit value "4", while the probability of 98% corresponds to the limit value "5". It can be considered that the fourth parameter has been satisfied to the required and sufficient level.

5) The level of satisfaction with the teaching process:

In regard to the fifth parameter, the three observed institutions prepared the reports on self-evaluation in a different way. Accordingly, the following tables are presented:

Table 25 - Testing of variables related to the level of satisfaction with the teaching process in the Belgrade Polytechnics

Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Teaching plan and schedule - consistency	402	1	5	4.02	.95
Conformity of the teaching plan and schedule with the expectations	404	1	5	3.47	1.00
Timely presentation of the plan of work and pre-examination obligations for each subject	404	1	5	4.12	.97
Teaching process is interactive	403	1	5	3.84	.96
Encouraging creativity	402	1	5	3.59	1.06
Examples from practice are good and illustrative	404	1	5	3.74	.99
Capacity for teamwork	403	1	5	3.71	1.05
Capacity for individual work	402	1	5	3.86	.95
Valid N (listwise)	398				

The result of the above table is the following table 26 which shows the mean and the standard deviation for the entire parameter in the Belgrade Polytechnics.

Table 26 - Testing of the mean and the mean deviation of the variables related to the satisfaction with the quality of teaching process in the Belgrade Polytechnics

Parameter	Mean	Standard deviation
The level of satisfaction with the quality of the teaching process	**3.79**	0.99

Then, the assessments of the parameter per programs of study were observed in the Technical College of Applied Sciences.

Table 27 - Testing of the quality level of the teaching process per programs of study in the Technical College of Applied Sciences

Program of study	Mean of the assessment of the teaching process quality
Computer Science	3.81
Electronic Business	4.43
Electrical Engineering	4.12
Metallurgy	4.29
Mechanical Engineering-Thermal Energy and Maintenance	4.28
Mechanical Engineering-Production Engineering	4.3
Environment Protection	4.37
Fire Protection	4.33
Civil Protection	4.33
Occupational Health and Safety	4.36
Graphic Design	4.35
Graphic Engineering	4.19
Applied Photography	4.35
Web Design	4.34
Mean of the quality assessment	**4.27**

Table 28 - Testing of variables related to the level of satisfaction with the quality of teaching process in the Academy of Diplomacy and Security

Variable	Mean
Timetable	3.89
Premises	4.17
Number of examination terms	3.31
Cleanliness and hygiene of the premises	3.05
Cooperation with students	4.49
Mean of the assessment of all variables	**3.78**

It is necessary to compare the means measured in all three institutions in order to defend the validity of the fifth parameter testing. Analysis of the means, using Student's t-test with 2 degrees of freedom, was implemented for this purpose. Probabilities of

significance of the tested means, which correspond to the t-test values, are shown in table 29.

Table 29 - Probabilities of the samples significance after Student's t-test of the parameter the level of satisfaction with the quality of teaching process

Limit value	t-test value	Probability of the sample significance
1	18.22	0.1%
2	12.03	0.3%
3	5.85	1.4%
4	-0.33	**61.36%**
5	-6.51	**98.86%**

Analysis of probabilities of the samples significance leads to the satisfactory conclusions; the probability of 61.36% corresponds to the limit value "4", while the probability of 98.86% corresponds to the limit value "5". It can be considered that the fourth parameter has been satisfied to the required and sufficient level.

The above mentioned five quality parameters, by means of which the null hypothesis has been confirmed, were tested on a sample of three higher education institutions which have implemented and conducted the quality management system.

It is necessary to carry out further research and compare these results with some future results in order to get an idea about the trend of evolution of the quality level in the tested institutions.

4. CONCLUSION

We are witnesses of the time when the service and product user is in the focus of interest of all organizations, including education institutions, which are or intend to be recognizable in the society. To achieve its aims, the higher education institution should offer its users constantly improving values. Understanding, meeting and exceeding needs and expectations of the higher education service user is of vital importance for achieving competitive advantage, positioning in the academic area, sustainable development and thus, sustainable success.

The research results indicate that the satisfaction of students, as most numerous and direct users of the higher education service, is in direct correlation with the quality assurance in a higher education institution.

Sustainable success of a higher education institution is achieved by reaching certain levels of student satisfaction with:
- the quality of the programs of study;
- the quality of work of the non-teaching staff (administrative office and student services);
- the level of satisfaction with technical equipment of the working area and library;
- the quality of work of the teaching staff;
- the quality of teaching process.

With the establishment of a quality management system, a higher education institution raises the level of its organization and improves the performance of institution, which implies satisfaction of all higher education service users. It is, therefore, recommended that legislation should enable establishment of a flexible concept capable of responding to global changes and requirements of the contemporary world and keep in balance the entire sequence of insufficiently clear, and sometimes contradictory, demands that are put on the university.

BIBLIOGRAPHY

[1] Garett R.: Quality Assurance in Borderless Higher Education, Six initiatives, The observatory on borderless Higher Education, Report, UK., 2003

[2] Research on the Institution Self-Evaluation for the year 2012/2013, Academy of Diplomacy and Security Belgrade, 2013

[3] Research on the Institution Self-Evaluation for the year 2012/2013, Technical College of Applied Sciences, Novi Sad, 2013, available on the site: www.vtsns.edu.rs

[4] Research on the Institution Evaluation by Students for the year 2012/2013, College of Applied Sciences, Belgrade Polytechnics; Belgrade, 2013, available on the site: www.politehnika.edu.rs

[5] Janovac T: „Improvement of the quality of higher education institution on the basis of the user needs criteria", doctoral thesis, Faculty of Applied Management, Economy and Finance, Belgrade, 2014

[6] Kasperaviciute R: Application of ISO 9001 and EFQM excellence model within higher education institutions: Practical experiences analysis, "Social Transformations in Contemporary Society", 2013