Original Paper

Benchmark-Instrument for Controlling as a Function of Higher Education-Comparative Analysis in Bosnia and Herzegovina

Aleksandra Vidovic[1*]

[1] Pan-European University Apeiron, Banja Luka, Bosnia and Herzegovina

* Aleksandra Vidovic, Pan-European University Apeiron, Banja Luka, Bosnia and Herzegovina

Abstract

Object of research is such that it is necessary to ask why even conducted "benchmark" in higher education? Analysis and comparison of the organizational units within the company itself, but also with the competition, will help in understanding the success factors, determining the problem areas of the subject and knowledge of roads to improve the current situation. Use that provides quality made "benchmark" be located in the recognition requirements of consumers, establish effective goals, development of accurate indicators of production, improve competitiveness, and the installation of the best business process. I would say that benchmark contributes to determining the best way carry out a satisfied customer, cost-efficient collection of creative ideas, knowledge of own strengths and weaknesses, and supporting process improvement of continuing action. Therefore, all the work put in relation to the Higher Education Benchmarks.

Keywords

Benchmark, analysis, higher education

1. Introduction

The following lines I will give a brief overview of the European standards for quality assurance in higher education. The standards are divided into three parts relating to: internal quality assurance of higher education institutions, external quality assurance in higher education and quality assurance of external quality assurance.

Part I: European standards and guidelines for internal quality assurance in higher education institutions

o   Policy work and procedures for quality assurance;

o   Approval, monitoring and periodic review of programs and degrees;

o   Assessment of students;

o   Quality assurance of teaching staff;

o   Learning resources and support to students;

o   Information System;

o   Public information;

Part II: European standards for external quality assurance in higher education

o   Use of external quality assurance;

o   Development of external quality assurance;

o   Criteria for decisions;

o   Processes are fit for purpose: Reporting: Follow-up procedures;

o   Periodic reviews: Analysis of System-wide;

Part III: European standards for external quality assurance

o   Processes use of external quality assurance in higher education;

o   The criteria and procedures for external quality assurance used by the agencies: The processes, criteria and procedures used by agencies should be pre-defined and publicly available. These processes should include;

o   Self-assessed quality assurance process;

o   External assessment by a group of experts;

o   Publication of the report, including any decisions, recommendations;

Participation in the Bologna process and the ratification of the Lisbon Recognition Convention has increased the number of obligations Bosnia-Herzegovina/RS in the field of higher education. According to the commitments of our country are classified into four categories, the first refers to the creation of a flexible education system that needs to be able to adapt to changes in society, the other is relates to secure rights in education; third means ensuring the right to education and access to education for all without discrimination, the fourth is to ensure the right to an education that includes the Diplomas recognition (Obrazovanje u BiH, 2008).

The Bologna Process is a process of reform of higher education in Europe to promote the mobility of students and teachers by establishing the European Higher Education Area by 2010 year. The process became known as the Bologna Declaration of June 1999. Year, signed by the ministers responsible for higher education from 29 countries in Europe, and the formal name of the European Higher Education Area-EHEA. The process of the national-international character, and conducted by national education ministries, universities, professors, students and their work presented to the Council of Europe and the European Commission.

Due to the new challenges facing the European Union found itself and its members, aiming to become one of the political and economic leaders at the time expressed globalization, realized the need for their coordinated approach and a strong integrative policy in education in general and particularly in higher education (Radić, Studij računarstva u Evropskom prostoru visokog obrazovanja, 2008).

•   The aim of the Bologna process is to create a European Higher Education Area-EHEA by 2010 when will erase the boundaries between national higher education area and increase the international competence of national universities. During the ten years that the process of developing activities to achieve the goals and objectives of the Bologna Declaration that have been imposed themselves as part of the reform process.

The Bologna Process is the biggest reform process of higher education in Europe to date, a process that coordinates the mutual learning process in three areas:

–   Improve the quality of higher education;

–   Increase the competence of Europe in relation to other parts of the world; and

–   Increasing mobility of students, teachers and administrators (Budrovac & Jovanović, 6 to 8 June, 2005).

Since our country has a large number of private educational institutions that become rivals state colleges and universities regardless of the large financial resources that need to allocate to the title acquired by them.

Whether the private educational institution to win the battle for students in the state, to show the time. What is true is that it can no longer be ignored and that in this sector of human life in our country

31

emerged something called competition.

According to the report, the education, inspection in May 2008, the main problems encountered by private or public schools are lack of space and permanently employed teachers (Filipović, 2014).

According to the Agency for Accreditation of Higher Education Institutions of the Republic of Srpska for Pan-European University Apeiron from December 2015, was assessed with an average rating of 3.55, and the recommendations of the Commission to issue a decision on the accreditation of higher educational institution for a period of 5 years (HEAA, 2015).

All these events have attracted my attention and so I will try to make an example application of benchmark, which would reflect in a simplified form of the analysis and a set of parameters that can contribute to improving service delivery of study that exists within the Pan "APEIRON" and whose objective testing and benchmark research, and basic questions to be answered as to what should be benchmarked, who or what is taken for comparison and how they collect and display data collected.

2. Methodologies, Samples and Research Instruments

Research task by its very nature must satisfy several conditions:

a.   The first condition would relate to the guaranteed anonymity to examinees, the reason that the same honestly answer the questions;

b.   The second condition would relate to ensuring the return of completed questionnaires;

c.   Third condition is related to costs and they minimize while performing research.

The main objective of this research is to obtain insight into the possibility of improving sales service APEIRON through the use of qualitative methods and benchmark among others, as well as identifying possible obstacles to improving sales service. The research was a qualitative type (survey and semi-structured, interview), examinees generally show a positive attitude towards private universities and see them as desirable as it significantly accelerates the process of obtaining a diploma, and there are indications that both reduce costs. Most of those examinees that had experience with the state colleges are satisfied with the effects and believe that the existence of private universities is very important. The data obtained from non-structured interviews should be used in a next phase of research.

Higher education has been neglected financially for a number of years, so both infrastructural and personnel are devastated. Equipment is outdated, often unusable, and university professors are, on average higher in life (Lukić, 2007).

I believe that the results obtained in this study represent the results of which should not be taken for granted no matter how good or not but this kind of research should be repeated time intervals.

3. Research Methodology

The paper is typically non-experimental research. This kind of research can give us quality data collected from the target groups of the basis of open and closed questions. For these types of research created a questionnaire (survey), which is given in the paper work, anonymity is ensured so that the completed questionnaires are not signed. The second method is a direct conversation with students of other comporting faculties. The survey was conducted during the period from three months in 2016. The study was conducted in four educational institutions in the Bosnia and Herzegovina/Republic of Srpska (BiH/RS). Only lead to the qualitative research techniques and methods. This is one state university with two faculties (Economics and Law) and two private universities (the Pan Apeiron and Slobomir P. University).

32

3.1 The Sample of Examinees

The survey was conducted during the period of three months. The research included 300 respondents across the Republic of Srpska in Bosnia and Herzegovina, subject's aged 18 to 35 years old, male and female. Research participants were divided into two groups, one group consists of full-time students whose age ranges between 18-22 years, while the second group consists of distance learning students whose age ranges on average about 35 years, Figure 1. Number of surveyed students when it comes to sex structure is gone in favors of male's Figure 2. When we talk about the structure students need to mention that a very large number of students interviewed was that it was a regular or distance learning students come with already tried studying at other universities.
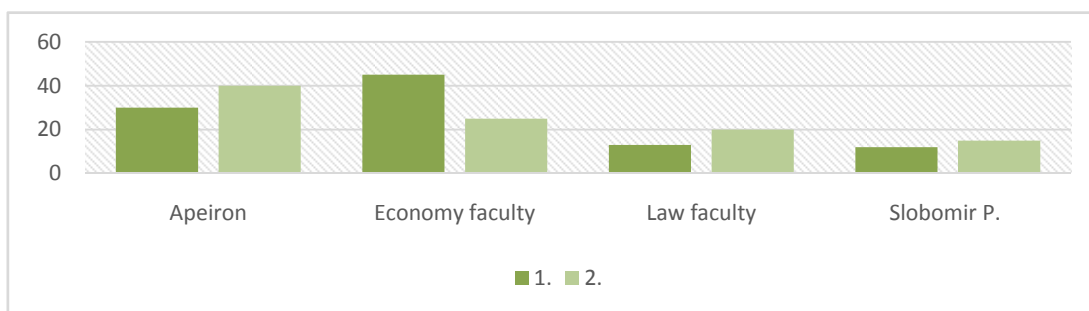
Figure 1. Age Structure of Examinees (1) 18-22 Years, 2) About 35 Years)

This chart shows that the economic faculty have the most students younger population (full-time students) in relation to comparable colleges while the Apeiron that number is in favors of slightly older population (students study distance learning).
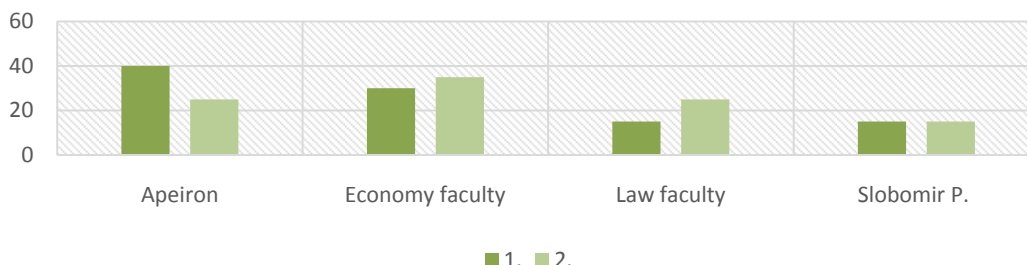
Figure 2. Gender Structure of Examinees (1) Female Examinee, 2) Male Examinees)

This chart shows us that the economic faculty were more male subjects in relation to other faculties, for deference of Apeiron, where the number is in favors of females.

The sample you used for this study is a representative sample because the survey has been done in terms of when students had to teach in "APEIRON" facilities. Examinee were students, students of all faculties of the Paneuropean university "APEIRON", while the sample size varied from lectures to the Lectures on average about 30 students.

The survey was conducted late in the year before the end of the semester, mostly with regular students. Samples of other colleges were also representative (it was the students of these faculties) but when it comes to other schools that underwent direct interview method (talk with students).

33

3.2 Determine What to Benchmark

The first and fundamental task that must be made to do and went into this work is to establish the benchmark case as in this case the Pan "APEIRON", which is an educational and scientific institutions, is entered in the court register of the Basic Court in Banja Luka, the **number: I/O 4847/05** started working 17.03.2006 year. As in, register of higher education institutions of the Ministry of Education and Culture of the Republic of Serbian. Before 2006, more than in 2003 there was a College of Economics, based in Laktaši, with its three directions as follows: Entrepreneurial Management, Management of public administration, Management Banking, finance and trade. Today, colleges that are located within the university are as follows:

1) ***College of Modern Management*** *(Entrepreneurial Management, Public Management and the management of banking, finance and trade;*

2) ***Law College*** *(General Law and Business Law);*

3) ***College of Health Care% Nursing*** *(Nursing, Physiotherapy and occupational therapy, Sanitary engineering, Health Management and Laboratory-Medical engineering);*

4) ***College of Informations Technologies*** *(Information Technology Management and Teachers' Informatics and Computer Science);*

5) ***College of Sports Science*** *(Sports Management, Pedagogical teaching degree program in sports);*

6) ***College of Philology*** *(Russian Language, Teaching and Translation study program of Russian language);*

7) ***College of Trafic Engineering*** *(Traffic and Transportation Engineering).*

Higher education is the core business of universities, in addition to the basic differ and other activities which are related to the publishing of books, brochures, musical books and other publications; Publishing of journals and other periodicals, publishing of sound recordings; Other publishing, retail trade of books, newspapers and other stationery, store computer equipment, business library, recreational activities and other related activities (Statute of Pan-European University, 2011).

Colleges together with the directions are classified, and adapted to market requirements. The fact is that in the State of RS/B&H, and thus the town of Banja Luka, there are a number of such establishments (with similar or the same types of services) clearly shows that competition among them large.

Assuming that revenues from services provided by these institutions provide significant, may conclude that this segment of business in the future be of great importance for the state of the RS/B&H. Especially since our country was at war and it is necessary to develop a professional support that will come out from this institution that development would be faster and more fruitful, skilled staff is essential in virtually all areas and aspects of the business, which means that the number of service users, which provides "APEIRON" be on the rise. That would be the main reason for benchmark in the analysis of this institution, as the basis for the design of its future direction and strategy work, and in order that it is in a period become a leader in the region of RS/B&H.

To answer the question "*Where are we now, where is currently located*", our first task is to collect information about our market system (which is here in this example relates to the university). It is often mixed in practice the concepts of market research and marketing-Research. I must say that the difference in concept. From previous studies I have learned that research can be partial or all for yourself (which means separately), which will bring us some information. Logically it follows that the conclusions which I will come to be isolated.

34

Surveys on a sample of consumers are the most common research techniques. Without interviewing users we would not be able to figure out the optimal launch a new service or to promote existing in the most appropriate way.

3.3 Determining Faculty of Comparison

Starting from the previous statement that the city/state there are a number of universities and taking into account some basic parameters such as:

- quality of services provided;
- number of service users in the previous period;

I chose the following faculties, which I used for comparison:

- a) Faculty of Economics;
- b) Pan European University APEIRON;
- c) Faculty of Law;
- d) Slobomir University (Pavlović University).

3.4 Establishing Methods for Data Collection

Data collection was done as follows:

- Direct contacts (talking with students);
- Web site by using these faculties;
- Survey.

Based on the above, I came across the following information:

- Data on levels, prices and payment terms;
- Data on the number of service users in the previous period;
- Data on which schools have the equipment (types of computers, printers, scanners, age, equipment);
- Data on teachers (experience, education);
- Data on the level of customer satisfaction (through questionnaires, surveys that users fill out only the Pan-European University).

The analysis itself refers to the careful consideration of the current situation, as well as benchmark partners.

3.4.1 Data Collection

As mentioned earlier in the data collection were used methods of qualitative analysis with an emphasis on so-called conversation: Direct interview survey.

The following lines give a tabulation of the structure of the Pan APEIRON and comporting Faculty (Note 1).
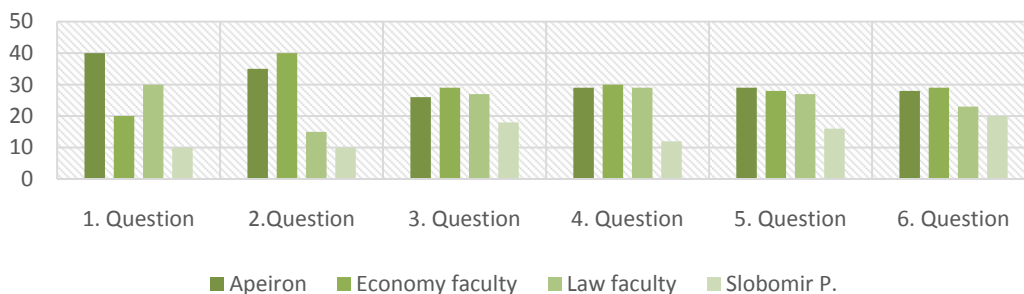

Figure 3. Structure

According to the aforementioned table view the attached to see the following results:

Putting Apeiron as the basis of observation what shows that in *Question No. 1*. The number of employed teachers (professors with a PhD) has the highest percentage of Apeiron while the rate follows the Law School.

Question No. 2. Number of staff assistants/associates receive advantage in this regard is in front of the Faculty of Economics, Apeiron, while the other two faculties are significantly behind in this regard.

Question No. 3. Should be taken into account of the number of students varies from year to year and the current state of the number of students who go to benefit the state faculty with less delay Apeiron.

Question No. 4. The number of graduates is seen only small insignificant differences.

Question No. 5. The technical equipment Apeiron in first place but it and other schools followed in their footsteps.

Question No. 6. All the facilities are looking at area they occupy relatively the same square footage but only slightly larger the Department of Economics.

3.5 Determining Differences

The most important characteristics that will use when performing comparisons that relate to selected colleges would be:
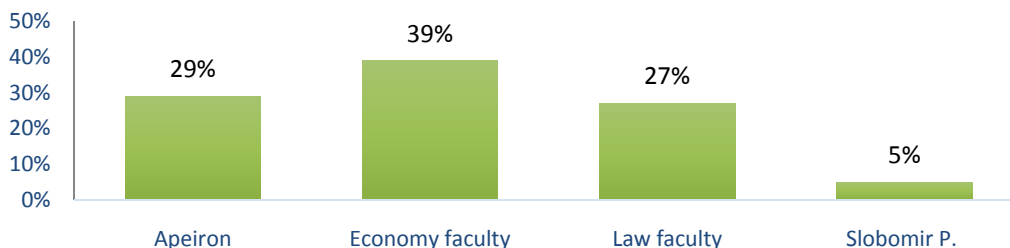
- quality of services;
- level of customer satisfaction.

Quality of services is determined empirically based on available data. Use a scale of excellent, good, bad, other Figure 4.
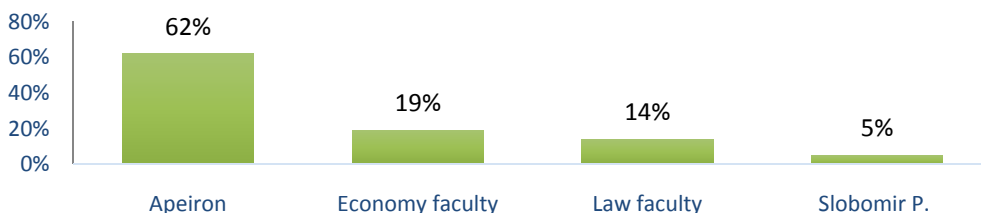
Figure 4. The Level of Quality of Services

The level of satisfaction is also determined by experience and based on interviews with students and questionnaires with service users—the students completed at the end of the semester, and the number of users in the previous period, and here is to use scales, Great-To-Satisfied, a well-bad-not-unhappy, the rest Figure 5.

Figure 5. The Level of Customer Satisfaction

36

From the analysis of both diagrams can conclude that the Department of Economics ranked the best in the quality of services while Aperion third place. While the analysis in terms of customer satisfaction, from this analysis diagram shows that, the first is Apeiron. From the diagram we can see that the Department of Economics (Here is a state university) on the same level as the law school (also public) while the other schools ranked slightly lower.

3.6 How to Perform in the Future

I show how to behave in the future be primarily devoted to analysis of a previous situation related to service quality and customer satisfaction Aperion University and the same analysis and comparison with the Economic and Law Faculty, and changing of the price will not be, except only the terms of payment.

It means relating to:

- increase the quality of services;

- increasing levels of customer satisfaction;

- improving the conditions of payment.

4. Results of Benchmark

Based on previous analysis can be seen following conclusions, which I have come, and how these would results and implement:

- quality of services that provides Aperion University is high but it should implement additional measures and activities aimed at increasing its reach to the University of best in class;

These measures relate to:

- introduction of quality management system ISO 9001:2001;

- introduction of new programs and new approaches to teaching (the introduction of monitoring of lectures over the *Internet-Distant Learning* (Note 2), since it has a very large number of interested students, this is especially true of part-time students);

- engaging expert speakers (foreigners), recognized in his work.

The level of customer satisfaction is very important if not the most important segment, and its increase implies the following:

- Constant contact and discussions with students in order to inform about their proposals and suggestions for increasing the quality of teaching;

- Improving the conditions of payment (in several instalments, discount for larger groups of students named: MLM-marketing, etc.).

Acceptance of this research by the employees is the most important condition that involves the implementation of the plans and actions to improve the work of universities. This implies careful introduction of new tasks and ensures that data, benchmark data to be included in all future activities.

The following steps should do the benchmark process I'll just mention, since the introduction of new things and actions needed slightly longer period of time that they can be carried out.

The following activities we need to do would be:

- Make a plan of action or turn into action benchmark data in our possession;

- Introduce some kind of specific actions that should be monitored periodically and see if we have progress or not;

- It would be desirable to repeat the benchmark study to see if a drop or level of service quality levels of customer satisfaction first results we can see only when best practice in providing this type of service is built into all business processes so that we can provide superior and superiority.

37

In this way, I tried to give an analysis of application of benchmark which is related to sales promotion services at the University of Apeiron.

The first part of the benchmark I gave a general view of the process of benchmark, while the second part shows its practical application.

The data on the current state of the University Apeiron I came with the help of qualitative research-surveys and internet forums.

Some of the results of the survey are as follows:

Analysis of the results of the survey at the University of Apeiron
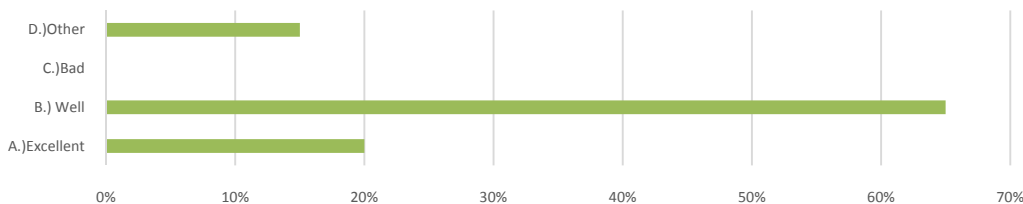
Figure 6. Question No. 1

On question 1: Your thought on the process of education that takes place at the Pan-European University Apeiron highest response was under b. Well it was 65%, followed by an excellent 20% and 15% remained in fact there was no clearly made. These results tell us that students are familiar with the work and the education system in this hospital only a few remained Failure (Figure 6).
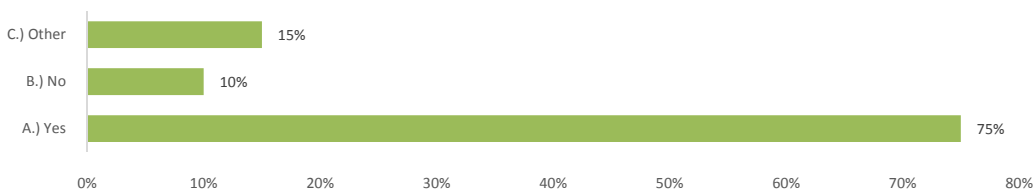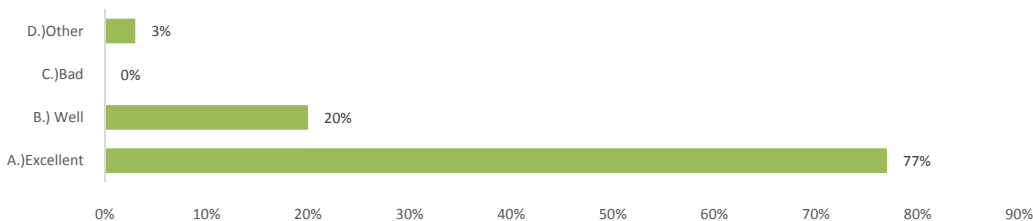

Figure 7. Question No. 2

On question 2: that refers to the knowledge of the personnel, structure of the highest response was under those 75% students who admitted to this institution and those that are familiar with the staffing structure in this institution. Just tell us sound and well-known names from the world famous and distinguished people in these areas but also in the space of neighboring countries (Figure 7).
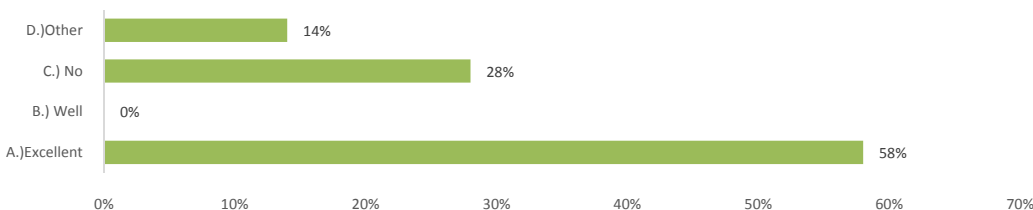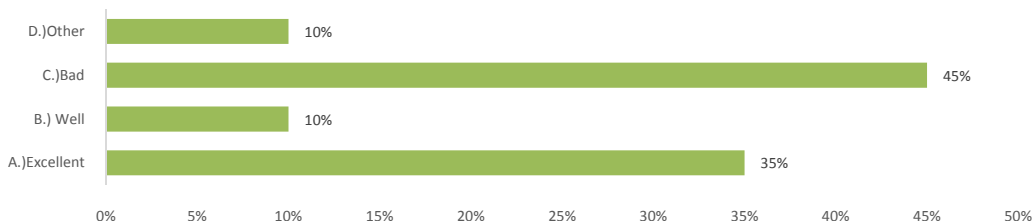

Figure 8. Question No. 3

38

On question 3: which refers to teaching the highest response was to under a, to 58%, not 28%, partial 14% of students were satisfied with teaching and meeting the students by teachers in terms of meeting the requirements for teaching students as well as in the case of a missed recover the *same* (Figure 8).
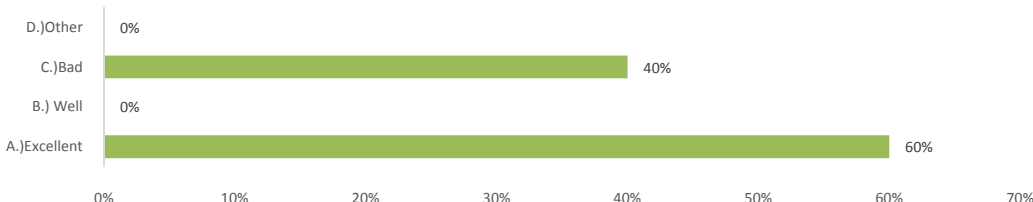

Figure 9. Question No. 4

On question 4: which refers to satisfaction with the technical equipment of the highest response was under a, excellent 77%, then 20% good and 3% did not committed. When we talk about the technical equipment of the institution the vast majority of students were satisfied with the equipment, but as in any business and so here it is found and the whip through the eye so to speak some minor criticisms (Figure 9).

Figure 10. Question No. 5

On question 5: relating to the familiarity of students with directions that all there at the university most responses were under b, No 55%, which means that students still do not have good information, to my knowledge the greatest confusion at the end of the semester has brought ignorance on electoral matters and what can and what cannot be put down (Figure 10).

Figure 11. Question No. 6

To question 6: which refers to the commitment of students to this institution, most responses were to under a.) to 60% while under b.) was 40%. From the interviews with the students commitment was

largely based on the recommendations of our now old students and their satisfaction and choice of the institution. Also, their choice between this or the State institutions are largely reduced to a system of instruction to first hear the case and then taken until this is all fresh to say the students, going to subject the subject does not build up so that everything can be reached within the given terms and conditions (Figure 11).
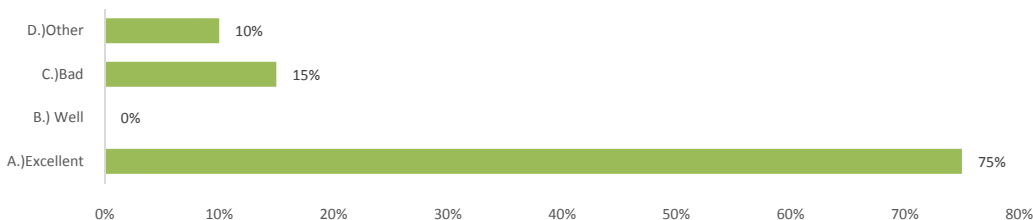

Figure 12. Question No. 7

Regarding this **issue No. 7:** students feel that the maintenance of additional teaching hours of great help in mastering the subject matter and about 75% of them gave a positive response. We have to say that there is a very large attendance of students in regular classes as well as students of distance learning study also should be noted that there is both a very great interest in the maintenance of additional classes or types of exercises the workshops or the like (Figure 12).

As for satisfaction with the work of the service at the university and **the question No. 8:** received an average rating of 3.5. It should be noted that the ratings have gone in the scale of the 1-5 and that this assessment is an average score that is a precarious level.
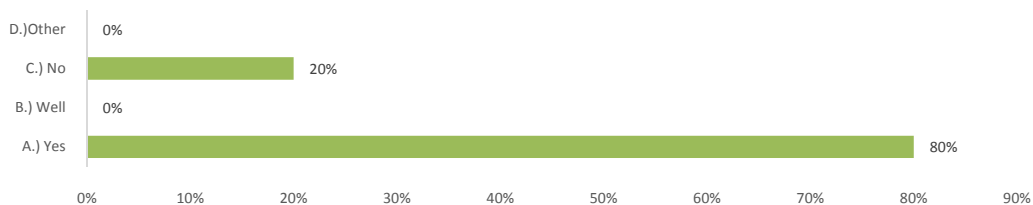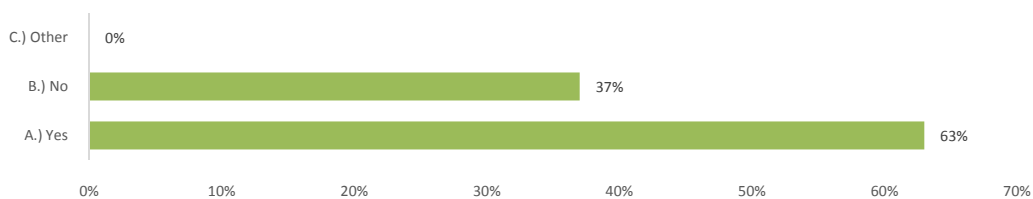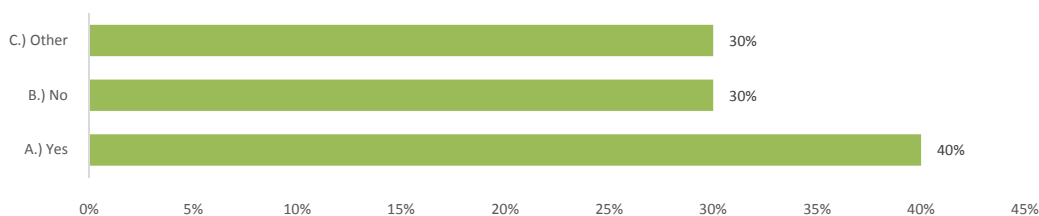

Figure 13. Question No. 9

Question 9: regarding the schedule of the war can say that users are generally satisfied with the distribution of (time) of the war, 80% of them have answered "Yes", and 20% of responses were not. The results show that students largely correspond to the schedule of the war in several instalments usually it is five war (Figure 13).

40

Figure 14. Question No. 10

The issue No. 10: concerning the discounts, customers (students) are also happy about that as there are different kinds of benefits and 63% have answered that while 37% were not. Especially now that the crisis is rampant, but there is also considerable interest in the so-called MLM where with as many enrolled students receive a scholarship in discount, and where some students may even achieve such a large discount to the end of the tuition is free (Figure 14).

Answers are varying for the **questions on the No. 11 and No. 12** from a complete criticism and praise.

Figure 15. Question No. 13

Question 13: Students are not particularly interested in scientific research but like everywhere, there are exceptions, 33% said for that, while the rest was not as true of the undeclared, to this largely depends on student's determination for further education and doing as we call it "smarter jobs" (Figure 15).
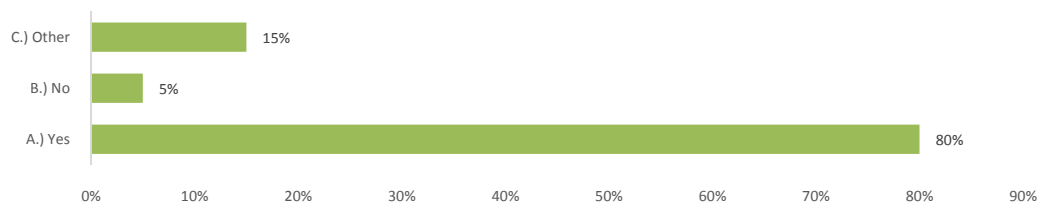
Figure 16. Last Question

On this last question, I can say that according to survey students the Pan European are very familiar with what it offers the Bologna Declaration. Approximately 80% answered that they know what the Bologna process is and attendance continue from year to year in favors of it (Figure 16).

41

5. Conclusion

As in the previous paper said benchmark is a relatively new process, which has existed for more than 20 years ago, so it is a process that helps in understanding why others do business better. Application of benchmark in our company will enable us to improve the business, the better to establish priorities, better to look at what are our strength and weaknesses, what are the chances and the dangers that lurk us from the environment.

Companies in the developed world to remotely operate with favorable results about the companies that achieve outstanding results with no need to talk just used this technique or method, and the benefits it provides benchmark.

Unfortunately, in these regions is very little known and even unknown to this methodology or tool quality.

So it is necessary for any changes. One of the first and perhaps most important change is the change in behaviour and thinking of top managers in this region, which refers to the fact that there is acceptance of this method of top managers in companies.

References

Apeiron. (2011). *Statute of Pan-European University*. Banja Luka: Pan-European University.

Budrovac, D., & Jovanović, N. (6 to 8 June, 2005). CRM metode za povećanje vrijednosti za kupca. *May Conference about the strategic Management*. Bor, Serbia and Montenegro.

CRM metode za povećanje vrijednosti za kupca, Majska konferencija o strategijskom menadžmentu. (2005). *Conference of Strategic management 6-8 June*. Bor, Srbija i Crna Gora.

Filipović, D. (2014). Državni fakulteti pali na ispitu. *Blic*.

Heaa, A. (2015). *Report on the external evaluation-Pan-European University Apeiron*. Panevropski univerzitet Apeiron. Banja Luka: The Agency for Higher Education HEAA.

Lukić, S. (2007). *Savremene tendencije razvoja visokog obrazovanja u Bosni i Hercegovini*. Banja Luka: Apeiron.

Radić, G. (2008). *Studij računarstva u evropskom prostoru visokog obrazovanja-Prilog bolonjskom procesu*. Banja Luka: Panevropski univerzitet Apeiron.

Week. (2008). Obrazovanje u BiH. *Week- časopis*, *2*.

Notes

Note 1. Data given tables dates from 2016 year, according to statistics of education.

Note 2. Distant Learning or the electronic learning, e-learning is relatively the new term around the world the learning long-distance. Electronic learning includes the every shape educations in which educational contents delivers in the electronic form. This learns dates more from the first half the 19 century like the originator considers Isaac Pitman which as teacher by profession has taught the shorthand one's pupils.