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QUALITY FUNCTION DEPLOYMENT AS A TOOL FOR IMPROVEMENT OF VALUE PROPOSAL IN HIGH EDUCATION

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Abstract. *Focus on students, as faculty services users, is very important for identification of faculties' improvement opportunities. If there is no focus on students and analysis of "voice of students" initiative for improving quality of work on faculties can be absent or with unsatisfying results. One of the tools, used under the modern concepts for quality management can be implemented for service organizations work improvement, and therefore faculties work improvement, too. The tool in question is Quality Function Deployment, which is promoted in enterprises in Japan. Implementation of this tool is presented for the Faculty of Economics in Niš.*

Key Words: *faculty, quality, students, professors, value proposition, "house of quality"*

INTRODUCTION

Education represents the process of transformation of tangible and intangible resources into services. The result or product of education can hardly be measured, because it manifests itself through knowledge, skills and capabilities, but also through behaviour of individuals that have been "through" education process. When it comes to high education and faculties as its manifestation, they should contribute to the development of creative and critical thinking of their students (as customers or clients), how they could be capable to identify and resolve problems (individually and as team members) in their future work. Precisely, the task of faculties is to provide students' intellectual development, which will influence their work and life.

The education process, and especially the process of high education, can be observed as a process of creation or adding value for students, but also for society as a whole. This is because students, through knowledge expansion and intellect development during their studies, get a significant precondition for becoming useful members of society.

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In modern conditions, in theory and practice, the quality concept represents a very important dimension of competitiveness. The quality concept has been a topic in different subjects at faculties (especially the ones in the area of economics and mechanical engineering), which is confirmed by modernization of syllabuses and by introduction of new subjects which are concerned with quality and quality management. However, though they promote the quality concept and its significance for competitiveness in modern conditions, some high education organizations do not implement the things they teach students about. The fact is that one of the reasons for Serbian state owned faculties' survival is the quality of their professors and assistants or quality of human resources, but, also, support (above all financial support) which comes from the state. However, in the last few decades, on the education market in Serbia, state faculties have been getting competition from privately-owned faculties. In order to remain on the education market, state faculties have to "wake up" and realize that business excellence principles adoption will become a condition for their survival and growth. In that sense, faculties have to continually question their "value proposition", or elements of services which they offer to students as their customers.

At the faculties, especially state owned, one can often hear that consumers of their resources are their professors and assistants, and that students are actually a product of the education system. However, though they are not the only ones,[1] students are surely customers or users of faculties' services.

SPECIFIC ROLES OF FACULTIES' STAKEHOLDERS

Though they are not enterprises, faculties represent institutions which also have different kind of stakeholders, as groups interested in its performing and performances. When it comes to faculty's stakeholders, there are some differences compared to enterprise's stakeholders. Precisely, these differences derive from the fact that faculty's stakeholders can have different roles, depending on the point of view.

A professor, as a faculty's resource, can act as a customer or consumer of results which were achieved by professors (his/her colleagues) who taught students before him or teachers in high school. However, a professor also has the role of a processor, in the sense of transferring knowledge to students, and in the sense of scientific work. Finally, a professor can act as a supplier, when the students he was teaching start to listen to the lecturers of other professors. If the professor had carried out his role as a processor successfully, then professors whose lectures students listen to in their further studies will have a good base for further knowledge transfer.

As consumers, students receive certain knowledge of their professors. However, considering that they alone need to study the suggested literature, they can be considered as specific processors. Finally, students may be in the role of suppliers, because after the completion of faculty, when they find employment, they provide additional knowledge for the economy (quantitatively and qualitatively).

Students' parents (financial supporters) also represent one of the stakeholders of the faculty. They have multiple roles. First, as consumers or users, parents as a result of the

[1] Users of Faculties' services can also be government, enterprises, entrepreneurs, local community, etc.

faculty functioning, are pleased that their children are highly educated. The role of the processor when it comes to parents is reflected in the granting of support, but also in the creation of habits and building the ways of students learning. The parents' role as suppliers manifests itself through enrolling their children at the faculty, but also through financial support.

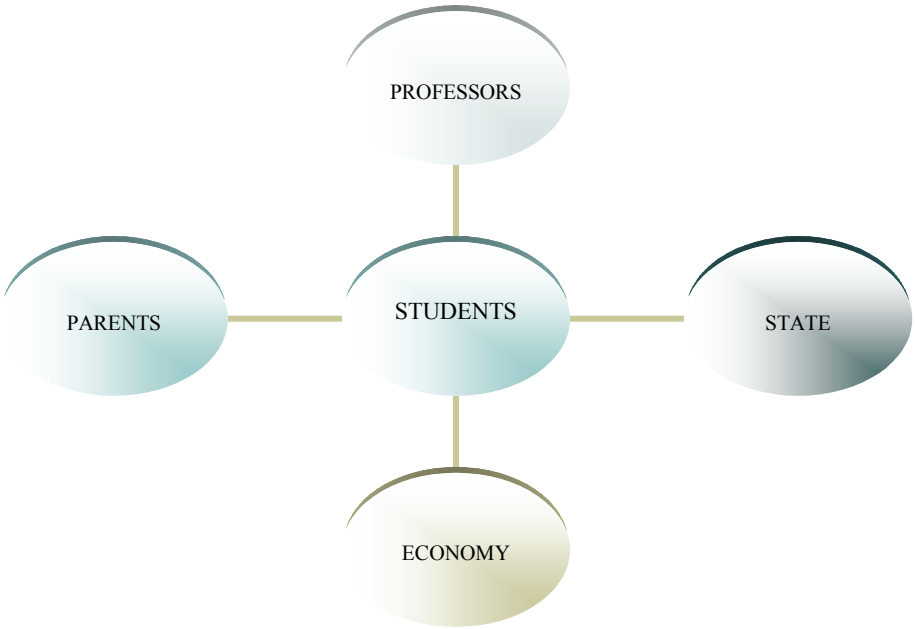

Fig. 1 High education key stakeholders

The state, as the founder, by definition represents the stakeholder of state faculties. It can be in consumers position, because it is assumed that the results of the faculty's work, embodied in students' knowledge, will be in function of development of the state (assuming there is no "brain-drain"). In the case when it approves grants for research stays abroad and training of students, the state has a role of creditor and processor. Bearing in mind that the state both approves research stays abroad and invest in training professors who work at the faculty, it can be considered as some kind of a supplier.

One of the faculty's stakeholders is the economy. As a consumer or user of the results of faculty's work, the economy (companies) gets highly educated and professional employees. When it employs students and provides them with additional training and development, the economy or the companies that it "is made" of act as a processor. Finally, the economy provides the faculty with certain resources necessary for functioning and therefore also has the role of a supplier.

Regardless of the fact that all stakeholders have a particular importance for faculty's functioning, the fact is that students are in the middle of the process of higher education. As stakeholder, they are related to all other stakeholders and, in fact, they represent the basis for connections between all other stakeholders (Figure No. 1.).

QUALITY FUNCTION DEPLOYMENT ESSENTIALS

Bearing in mind that, according to allegations by many authors, the XXI century will be the century of quality, the fact that important tools for quality management have intensive usage is not at all surprising [6]. Besides, there are some new concepts for quality management, which are no longer focused only on the quality of products and processes, but primarily on the quality of business. Some of the tools can be used to improve the existing level of quality, some for creation of a new quality, while some tools are used in both cases.

One of the important tools for quality improvement, whether it is about improvement of the existing processes and products or the introduction of completely new ones, is *Quality Function Deployment* or QFD. This tool has been introduced by Yoji Akao and Shigeru Mizuno,[2] and was first implemented in Toyota, for more efficient translation of consumers' requirements into characteristics of products and processes. Bearing in mind that it involves harmonization of customers' requirements with the enterprise's capabilities it can be called the *Optimal Structuring of Product Features*.

QFD enables focus on the key customers' requirements or on those elements that are defined as being very important to the customers. By addressing these elements, the (re)design process is shortened to focus on items that the customers really want. By concentrating efforts, less time will be spent on redesign and modifications. The savings have been estimated as one-third to one-half of the time taken using traditional means.

Once QFD is used, there is a tendency to wonder how things were ever accomplished before. However, the danger is using QFD as an end to itself. The information provided through this tool represents the basis for analysis and decision-making. Once this information is in hand, then, through a Pareto ranking, the requirements are prioritized, and the manager can then effectively place resources where they can do the most good — on the requirements that are meaningful to the customers and that can be acted upon [5, pp. 122.].

In many companies, there is a wealth of information available, but not put together in a document. QFD places that information into a structured format in matrix form that is easy to assimilate and that is known as "house of quality" or HoQ. This information contains all necessary rationale for choosing the design, identifying trade-offs, and listing future enhancements. This is important for the times when there are employees who leave the enterprise and new people are brought on board, as the documentation allows the swift integration of ideas and progress.

Though "house of quality" is very helpful for decision-making, when someone speaks about QFD, the discussion is generally about matrix. It can rarely be heard something about QFD as a systems approach to product introduction or improvement planning. When a systems approach is used, management acceptance is obtained because managers can see the value. Figure No. 2. shows a generic flow of the QFD system model. The value of this model is that it shows the integration of the various quality tools with a set of deliverables using QFD as the framework.

[2] QFD originated in 1972 in the Mitsubishi shipyard. The basis of QFD is A.V. Feigenbaum's Total Quality concept.

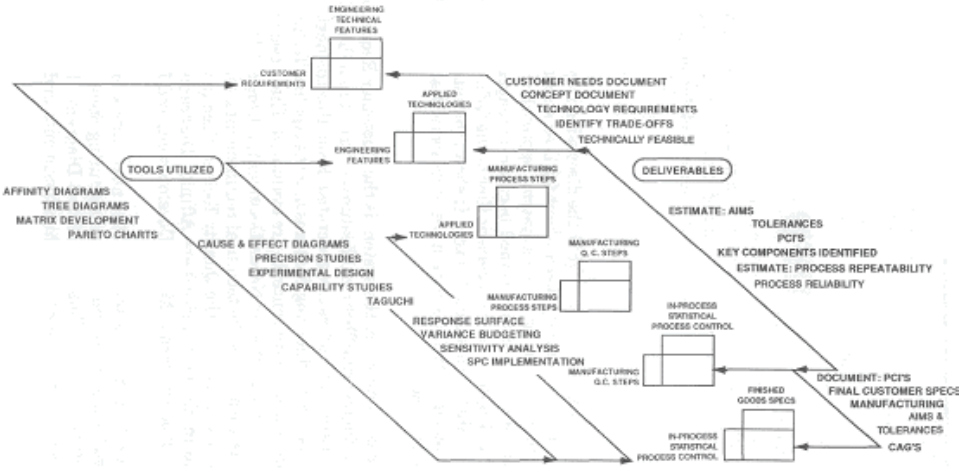

Fig. 2 QFD systems flow model [1, pp. 40.]

QFD IMPLEMENTATION IN HIGH EDUCATION

Although originally used as an important tool for manufacturing companies' managers, QFD can be applied in non-production or service companies or institutions. In fact, any organization whose results should "find the way" to the specific users (customers) should include QFD into the "tools of management".

Unlike the four-stage methodology for the implementation of this tool in the production companies, when it comes to its implementation at the level of faculties (as high education institutions) it is implemented through three phases. It is about the following stages: services planning, elements planning, and operations planning (Figure No. 3.).

Service planning is a phase that corresponds to the product planning when QFD is used in manufacturing enterprises [2]. In this phase it is necessary to identify the students' requirements (when they are viewed as customers or service users of the faculty), and then to connect them with the elements of faculty's services. In fact, elements of the faculty's services correspond to designed features, when it comes to manufacturing companies. Planning of elements includes the establishment of links between elements of the services and activities that have been performed at the faculty, and it corresponds to operations planning in manufacturing companies. The last phase represents process and operations (activities) planning and it refers to the establishment of links between activities, on one side, and resources and capabilities of the faculty, on the other side. This phase corresponds to production planning in manufacturing enterprises. In the following pages more attention will be devoted to the first phase of QFD implementation, or to services planning.

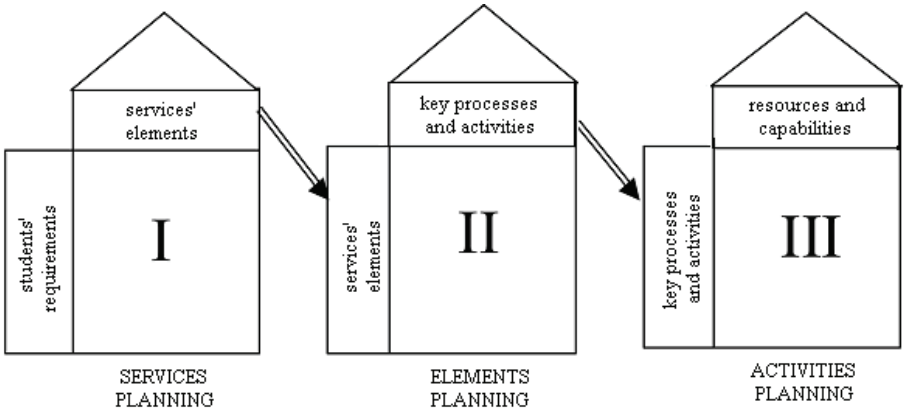

Fig. 3 Phases of QFD implementation

During the implementation of QFD, team entitled for this tool usage, has to identify the needs and demands of students (in terms of their expectations about professors and study course they have chosen), to provide their ranking (identification of priorities) and to find ways for their fulfilment, or to establish a connection between students' demands and faculty's resources and capabilities.

Considering the previously mentioned, it can be said that the pre-step in QFD implementation concerns *improvement team* members' identification, which will be engaged in data collection and analysis. The improvement team generally consists of development, marketing, quality assurance, and manufacturing experts. Improvements are defined by students' needs, which are obtained from marketing. Development, quality assurance, and manufacturing should assess the availability of current technologies, techniques, and equipment in order to determine the resources needed to bring about the improvements. Resources in this case are defined as money, time, people, and equipment. The QFD team must answer three questions – *WHO, WHAT* and *HOW*, in the following sense [4]:

- *WHO* are the customers - students?
- *WHAT* do the customers- students need?
- *HOW* will the needs be satisfied?

WHO may be decided by asking "Who will benefit from the successful introduction of this service or process? Once the students have been identified, *WHAT* can be ascertained through interview or questionnaire focus group processes, or from the knowledge and judgement of the QFD team members. Collecting information about students' demands represents consideration of the "voice of the customers". *HOW* is more difficult to determine, and it consists of the attributes of the service or process under development. This will constitute many of the action steps in a "QFD strategic plan". *WHO, WHAT* and *HOW* are entered into a QFD matrix or grid of "house of quality", which represents some kind of "quality table". The *WHAT*s are recorded in rows and the *HOW*s are placed in the columns.

Students' requirement should then be examined in terms of customer rating, but a group of students may be asked how they perceive the performance of the faculty's services versus those of competitors. These results are placed to the right side of the matrix.

The *WHAT*s must now be converted into the *HOW*s. These are called the *technical design requirements* and appear on the diagram from top to bottom in terms of requirements, rankings (or costs) and ratings against competition. These will provide the "voice of the process". The technical design requirements themselves are placed immediately above the central matrix and may also be given a hierarchy of prime and detailed requirements. Immediately below the students' requirements appear the rankings of technical difficulty, development time, or costs. These will enable the QFD team to discuss the efficiency of the various technical solutions. Below the technical rankings on the diagram comes the benchmark data, which compares the technical processes of the organization against its competitors' [5, pp. 126.]. By starting this way, the matrix can be used to see how well the current quality system assures that the services meet students' requirements. In many cases, this is the first time anyone has documented mentioned connections. This can amaze some team members.

The *central relationship matrix* is the working core of the "house of quality" diagram. Here the *WHAT*s are matched with the *HOW*s, and students' requirements are systematically assessed against each technical design requirement. The nature of any relationship – strong, medium, and weak – is shown by symbols in the matrix. The QFD team carries out the relationship estimation, using experience and judgment, the aim being to identify *HOW* the *WHAT*s may be achieved [3]. All the *HOW*s listed must be necessary and together sufficient to achieve the *WHAT*s. Blank rows (customer requirement not met) and columns (redundant technical characteristics) should not exist.

In addition to relationship matrix, "house of quality" contains the correlation matrix. This matrix represents the "house of quality" "roof" and it shows in what kind of relationship are the elements of faculty's services. The correlation matrix can show the positive or negative correlation. While a positive correlation between the elements means that there is connection between services elements, negative correlation means that the elements are mutually exclusive, and that between them there is no connection.

Given the intensifying competition, comparison with competitive faculties is considered very significant. In this sense, one of the "house of quality" columns refers to the comparison with competitors. Namely, this column shows how students, as users of faculty's services, see faculty in comparison with its competitors. Competitors should be identified so that everyone in the team knows who the competition is. This is where some insight can be gained how the students see (students' perceptions) weaknesses in Faculty's services compared to the competitors. It is also the start for the Faculty to see how it can develop some strategies to emphasize strengths and improvements in its services.

After filling out the "house of quality", the next step is the analysis of the presented data. The analysis should show the key competence of the faculty, but also the services' elements that have to be improved for providing higher services' quality and better position compared to competitors.

When one first looks at a QFD matrix, it may appear to be very confusing and busy, with a lot of details. It is the truth, but also is the truth that the matrix enables the creation of a global viewpoint from all the detail, a benefit that is frequently overlooked. Many times improvement team get hung up on the details and forget the original purpose.

CONSTRUCTION OF "HOUSE OF QUALITY" FOR FACULTY OF ECONOMICS IN NIŠ

With the purpose of identifying students' requirements, as Faculty's customers, a research has been conducted. This research comprised 200 students at this faculty. Out of these, 63 are first year students, 57 in the second year, 49 in the third year and 31 in the fourth year of studies. The number of students surveyed by years of study was determined based on the relative representation of students by years of study in the total number of students at the Faculty.

The data about students' needs and demands were gathered using survey questionnaire. At first, pre-research has been conducted to check the validity of the questionnaire. Also, additional data needed for analysis were gathered through focus groups. Based on the data collected about the needs and demands of the students, the same are classified into three categories, namely: subjects' contents, the way of teaching and professors' attitude toward students.

To the requirements of the students should be responded with appropriate services, so therefore the next step has been identification of the Faculty services' elements. These elements have also been classified into three categories, which are identical with categories of students' requirements and they are: subjects' content, method of teaching and professors' attitude toward students.

Between students' demands and services' elements connection has been established by using the connection matrix. At the Figure No. 3, a strong connection is marked with the letter "S" and includes 9 points, medium connection is marked with the letter "M" and brings 3 points, while the weak link is displayed with letter "W" and brings 1 point. In further analysis, these points are used for weighing the importance of the individual students' requirements in order to determine their absolute (abs) and relative importance (rel).

After the grid connection, correlation matrix has been created. It shows which elements of the services complement (support) each other and which are mutually exclusive, or in other words, between which elements there are positive and between which negative correlations, respectively. Positive and negative correlations have been marked with letters. Positive correlation is marked with the letter "p" and negative with letter "n". For example, between information technology and professors' presentation there is positive correlation, and between preparations for the lectures and consultation hours there is negative correlation.

For comparisons with other faculties, competitors, students have been evaluated (from their point of view, based on their perceptions, experience, mutual discussions) each of their requests for the Faculty of Economics and the two competitors. The first competitor is considered to be the Faculty of Economics in Belgrade, and the other private faculty Megatrend. For the evaluation has been used a scale from 1 to 5, where 1 means that the students believe that the Faculty is not able to fulfil their requests, while 5 means that faculty can fully meet their requests. Bearing in mind that in the "house of quality" in the column "comparisons with competitors" the Faculty and its competitors are shown with symbols or letters, the Faculty of Economics is presented with letter "N", Faculty of Economics in Belgrade with the letter "B", and Megatrend with the letter "M".

The target technical characteristics may be used to generate the next level "house of quality" diagram, where they become the *WHAT*s, and the QFD process determines the

further details of *HOW* they are to be achieved. In this way the process "deploys" the students' requirements all the way to the final operational stages. However, these target values have not being presented in the following example, since they can be considered a business secret.

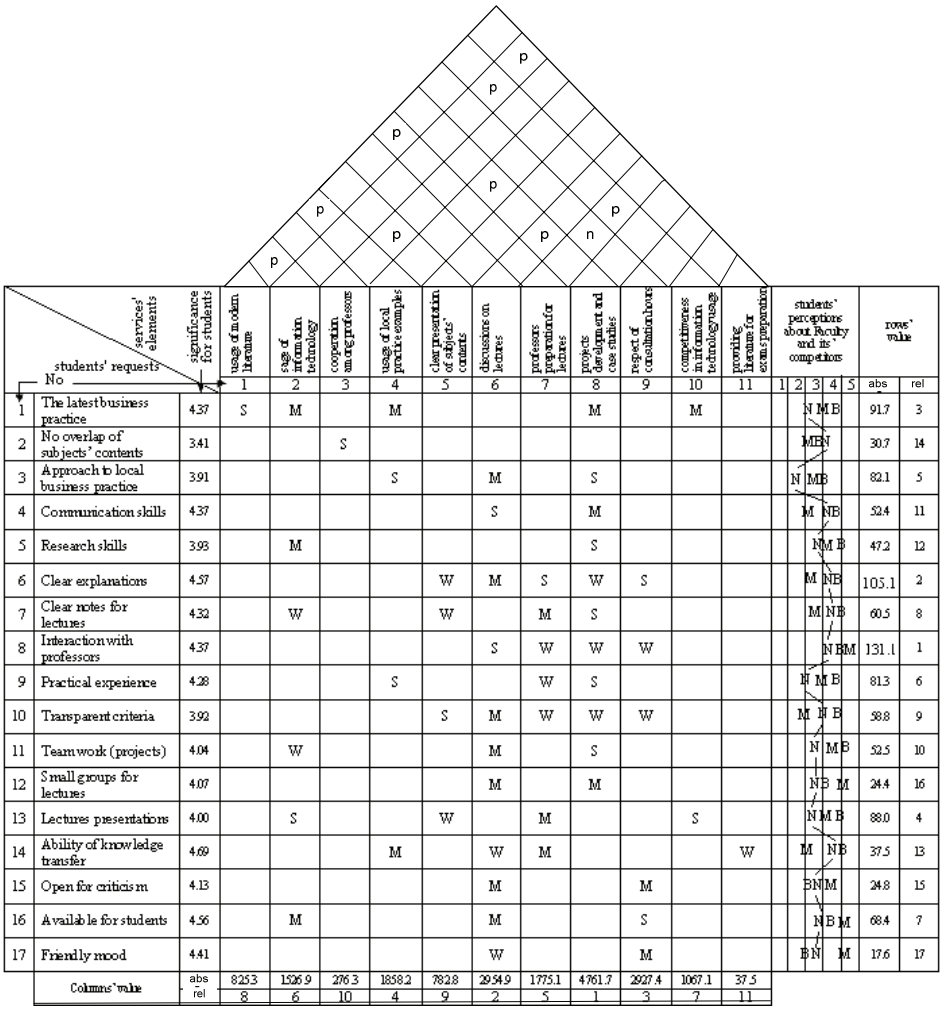

Fig. 4 "House of quality" of Faculty of Economics Niš

ANALYSIS OF THE FACULTY'S "HOUSE OF QUALITY"

The first five students' requirements belong to the category of subjects' content, the following eight to the category of a way of teaching, and the last four to the category of the ratio professors to students.

Based on the data collected about the importance of certain requirements for students, analysis resulted in the following information: the highest average score received a requirement that relates to the ability to transfer knowledge (4.69), followed by clear explanations (4.57), availability of professors to students (4.56), the latest business practices (4.37), communication skills (4.37) and interaction with professors (4.37), while for the students the least significant requirement relates to the overlapping content of subjects (3.41). The requirements with the highest average grade can be regarded as critical elements of Faculty's value proposal quality.

If one looks at the values in the rows (Figure No. 4.) one can see that the following students' requirements have the greatest value: interaction with professors (131.1), a clear explanation (105.1) and the latest business practices (91.7). These requirements are related with the largest number of elements of services, which means they have the most potential for improvement, and at the same time that these requirements can be provided through the several services' elements. If one bears in mind that these requirements are exactly the ones that are critical from the point of view of students, it can be concluded that these requirements may be fulfilled by the Faculty relatively easily.

In addition to the proposed requirements, students have been given the opportunity to bring additional requirements, which are not included in the questionnaire, and which are important to them for the improvement of the Faculty's value proposal. The additional requirements that students have stressed are:

- Help in finding a job after graduation,
- Objective way of evaluation of their knowledge,
- The ability to contact professors via e-mail,
- The possibility for applying for exams via the Internet,
- Free sign of colloquia for students who are financed from the budget.

The realization of some of these demands requires more time and resources (e.g. the possibility for applying for exams via the Internet). However, the realization of some others requires only good will and willingness of professors to meet the students' requirements (e.g. ability to contact professors via e-mail).

Also, students have been given an opportunity to enter their observations or comments and compliments regarding individual claims into the questionnaire. Observations of students were systematized in Table No. 1. As it can be seen from this review, the greatest number of students put emphasis on two requirements, team work and availability of professors to students. When it comes to team work, students have emphasized its great importance, on the one hand, and the fact that it is not present at the Faculty, on the other. Team work could be implemented through solving problems of real or imaginary companies or by discussions regarding specific issues, where leaders of teams can be professors or associates, or students themselves. According to the information that the author has, such initiatives already exist in certain subjects, but, according to students' observations, team work has to be encouraged also in other subjects.

According to the survey, requirements concerning that "a professor is available to students" have been observed through consultations with students, so therefore their complaints (observations) have been related to "no respect of the consultation hours" by professors. Although it is not uncommon that students ask professors questions about "technical data", for which students' service is in charge, consultations, according to students,

are desirable, because they contribute to "better relationships between professors and students", and to reduction of fright and discomfort at the exam. In this sense, professors' availability through consultation hours is a request that is easy to fulfil, and which can significantly improve the image of the Faculty in the eyes of students as customers or clients. Students' observations also included some praises, and they are mainly related to the high quality of professors' presentation of lectures.

When it comes to the Faculty's service elements, the first four elements belong to the category of subjects' content, the following four to the way of lectures' realization, and the last three elements to relations between professors and students. If one looks at the value of the columns (Figure No. 4.), one can see that the following elements of Faculty's services have the highest value: development of projects and case studies (4761.7), discussions in classes (2954.9), and consultation hours (2927.4). These elements should be specifically promoted, because they significantly reflect the critical students' requirements.

Table 1 Students' observations concerning certain requirements

No.	Students' requirements	Students' observations
1.	New business practices	a) There should be more concrete examples
2.	No overlap of subjects' contents	a) Some subjects significantly overlap each other
3.	Local practice access	a) Inadequate practice
4.	Communication skills	/
5.	Study skills	/
6.	Clear explanations	a) Content of some subjects is incomprehensible
7.	Clear notes for lectures	/
8.	Interactions with professors	/
9.	Practical experience	a) There is no practical experience
		b) Practical experience is necessary
10.	Transparent criteria	a) Does not exist
11.	Team work (projects)	a) Teamwork does not exist
		b) Team work would be of great benefit
		c) Teamwork is extremely important
12.	Small groups for lectures	a) Groups are too large
13.	Presentations of lectures	a) Presentations have high quality
14.	The ability to transfer knowledge	/
15.	Open to criticism	/
16.	Accessible for students	a) Professors do not respect consultation hours (pointed out more than once)
17.	Friendly mood	a) Some professors are arrogant

Based on the analysis of connection matrix, it can be seen that certain services' elements are connected with the largest number of students' requirements. These are: the discussion in classes (connected with 11 students' requirements), projects and case studies (connected with 8 students' requirements), then professors' preparation for the lectures (connected with 7 students' requirements), followed by the usage of information technology (connected with 6 students' requirements) and consultation hours (connected with 6 students' requirements).

Values in columns and rows are very important for determining the elements of services which should be improved, or for determining the students' requirements that the Faculty has to focus on, respectively. According to the data obtained by research, the service elements which should be improved are: projects and case studies, discussions in classes, consultation hours, practical examples, professors' preparation for lectures, information technology usage. On the other hand, the students' demands whose implementation should be given more attention are: professors' ability to transfer knowledge, clear explanations of lectures, availability of professors to students, professors' friendly attitude towards students, and access to the latest business practices.

Analysis of the correlation matrix should serve as "connection" of the Faculty's services elements. It actually means that the elements between which there is positive correlation should provide at the same time, because their parallel existence can provide synergy. Otherwise, the absence or inadequacy of a service element may reduce the importance and effects of other elements with which it is positively correlated. For example, between the element "examples of companies from the environment" and the element "discussion in classes" there is a positive correlation. If professors at lectures only state practical examples without the possibility of students' involvement in a discussion about the same, the importance of shown examples will be reduced. Otherwise, if there is discussion in classes, but about some abstract examples, without giving practical examples, there will be a possibility that the topics of lectures remain unclear. Connection between information technology usage and professors' competence in using information technology can be described in a similar way.

Comparison with competitors and monitoring the activities of competitors is very important in modern business conditions. In this regard, the questionnaire included the collection of data about students' perceptions regarding the fulfilment of the mentioned requirements by the Faculty of Economics in Niš, but also students' perceptions regarding fulfilment of the mentioned requirements by competitors, the Faculty of Economics in Belgrade and the private faculty Megatrend. According to research results (which are shown in summary in "house of quality" in the column "Students' perceptions of Faculty and its competitors") the Faculty of Economics in Niš for the largest number of requests is behind its competitors. It can be noticed that the Faculty of Economics in Belgrade has an advantage compared to the same in Niš, when it comes to the latest business practices, access to local business practices, communication and research skills, clear explanations and notes for lectures, practical experience, transparent criteria, teamwork and the ability to transfer knowledge, while the advantage of the private Megatrend Faculty manifests itself through interaction with professors, teaching in small groups, professors' openness to criticism, availability of professors and their friendly attitude.

The Faculty of Economics in Niš compared to competitors (according to students' perceptions) for the largest number of requirements has been rated with the lowest marks (in 9 requirements), the Faculty of Economics in Belgrade, received the lowest score concerning 2 requirements, while the private Megatrend Faculty rated the lowest grade for 6 students' requirements. Although there are differences in the grades of mentioned faculties, according to the perceptions of students, these differences are not expressed, which means that the Faculty of Economics in Niš can improve its competitive position with minor adjustments or improvements of certain services' elements. The research results clearly show what should be improved in order to capture a better competitive position.

However, the fact that must be taken into consideration is that evaluation of the mentioned faculties fulfilment of students' requirements has been made by students at the Faculty of Economics in Niš, and therefore that there is a certain dose of subjectivity in the sense that the other faculties can "do better" by certain requirements, or in the sense that "it is easier to study at other faculties".

In the previous example only the first "house of quality" has been created and analyzed. In that sense, the challenge for the future research will be the creation and analysis of other two "houses of quality". In fact, in the second "house of quality" there should be established a link between the elements of the Faculty's services and processes or activities that are performed in order to provide those services, while in the third "house of quality" should be established a connection between processes and activities on one side, and the resources and capabilities of the Faculty, on the other. In this way it can be more accurately determined whether it is necessary to provide additional resources or to develop existing or new skills in order to improve the Faculty's value proposal, and consequently and to increase competitiveness.

CONCLUDING REMARKS

The aim of the "house of quality" is to co-ordinate the inter-functional activities and skills within an organization. This should lead to products and services designed, produced/operated, and marketed so that customers will want to purchase them and continue doing so. The use of competitive information in QFD should help to prioritize resources and to structure the existing experience and information. This allows the identification of items that can be acted upon. There should be reductions in the number of midstream design changes, and these in turn will limit post-introduction problems and reduce implementation time. Because QFD is consensus based, it promotes teamwork and creates communications at functional interfaces, while also identifying required actions. It should lead to a "global view" of the value proposal, from a consideration of all the details.

Students' requirements fulfilment, continual improvement, free communication, teamwork and dedication are important elements of faculty's transformation. A key principle of QFD implementation is that all that activities that are performed at the faculty must be focused on meeting students' demands. Such activities represent the "value adding" activities and they should be the subject of the improvement, when it is about improvement of faculty's quality. Based on students' impressions it is possible to identify which services' elements are critical for the fulfilment of students' requirements in general, and especially those that students pointed out as the most important or as the priority. In this sense, QFD, although originally designed for manufacturing organizations, can be successfully used at non-production organizations, among others, at faculties.

In this paper, QFD is applied at the Faculty as a whole, and research included students at all courses that exist at the Faculty. One of the future challenges will be analysis and improvement of certain courses at the Faculty. This study would assume identification of requirements of students in certain courses, and then comparison of the results obtained by analysis of the courses.

If QFD is introduced systematically, it should add structure to the information, generate a framework for sensitivity analysis, and provide documentation, which is "living" and

adaptable to change. The main benefit of QFD implementation at the faculty is, of course, providing of students' satisfaction and loyalty, and consequently good reputation and financial results for the faculty itself.

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RAZVIJANJE FUNKCIJE KVALITETA KAO ALAT ZA UNAPREDJENJE PONUDE VREDNOSTI U VISOKOM OBRAZOVANJU

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Fokus na studente, kao korisnike usluga fakulteta, veoma je značajan za identifikovanje mogućnosti za unapredjenje rada fakulteta. Ukoliko izostane fokus na studente i uvažavanje "glasa studenata" inicijativa za unapredjenje kvaliteta rada fakulteta može izostati ili dovesti do nezadovoljavajućih rezultata. Jedan od alata koji se koristi u okviru savremenih koncepata za upravljanje kvalitetom može se primeniti i radi unapredjenja rada uslužnih organizacija, te i fakulteta, kao visokoobrazovnih institucija. Reč je o alatu Razvijanje funkcije kvaliteta, afirmisanom u japanskim preduzećima. Primena ovog alata prikazana je na primeru Ekonomskog fakulteta u Nišu.

Ključne reči: *fakultet, kvalitet, studenti, profesori, ponuda vrednosti, "kuća kvaliteta".*