

# Quality infrastructure in higher education – The case of Serbia

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**Abstract**—The growing educational opportunities and needs for development of education are creating a changing environment for higher education systems throughout the world. The majority of countries have developed an entire industry of higher education with the strong influence of quality standards through the accreditation systems, as part of national quality infrastructure (NQI) and more specifically of the educational quality assurance process regarding the ways to meet the needs of different stakeholders and interested parties. Accreditation as main cohesive factor of other NQI elements aims at providing necessary levels of students' confidence and trust, in the long run. In accordance with the Serbian National Accreditation Body report, we investigated trends with regard to data from different scientific fields Serbian public and private universities belong to, as well as timing of their accreditation. High quality of distance learning (DL) curricula is among the critical success factors for the higher education industry. Thus, we put an additional effort to take into consideration DL data, since this dimension of education becomes increasingly popular and attractive in Serbia.

**Keywords**— accreditation, higher education, quality assurance, quality infrastructure

## I. INTRODUCTION

Most countries have developed an entire industry of service providers that specialize in the diffusion of quality and standards through the provision of quality assessments, technical assistance, information, and training services. Higher education institutions are one of the public institutions that are the important link in developing of national quality infrastructure (from now on referred to as: NQI). Nowadays, a functioning quality infrastructure (hereinafter referred to as: QI) is a prerequisite for access to regional and global education market and a key determinant of competitive advantage.

Quality infrastructure provides the underpinnings that enable organizations to compete regionally and internationally, meet stakeholders' requirements and manage risks. It includes both public and private institutions and the regulatory framework

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within which they operate. As in [1] national quality infrastructure “helps to promote sustainable development” of what is done and improve the current situation. QI is supported by four main pillars: metrology, standardization, conformity assessment and accreditation, including certification, testing and quality management. [2] In our research we will only focus on accreditation as a tool for achieving high quality and customer satisfaction (including all stakeholders and interested parties).

Globalization, the massive expansion of educational opportunity and educational developments are creating a changing environment for higher education systems across the world. This environment is, in turn, creating pressure for concerted action by institutions and government agencies within and across countries to improve the way they approach quality assurance. [3] Quality assurance and quality as results of accreditation were a long time ago imported into the university vocabulary from industry. [3] In [4] is highlighted that quality in education is “only the fortunate peak of a vast pile of dreary teaching and wasted learning”. It is becoming important, particularly so in higher education, where the products/services of the system, can have a direct impact on quality of their employer organizations.” [5] Also, [6] stressed that quality “has come to be seen as a continuous process of assessment and improvement”.

The aim of research is to provide the basic insight in the current state of accreditation system in higher education in Republic of Serbia, as a part of NQI, and to investigate which of accredited faculties of the Universities are the first one which adopted appropriate standards, and get a certificate of accreditation. Also, we will classify faculties by type and observe some significance between fields in which faculties belong to and the year of accreditation. In addition, within this analysis, distance learning will be taken into account.

Firstly, literature review will give the insight in importance of the issue (Table 1 and Table 2) and the accreditation system in higher education in Serbia will be presented according to year of accreditation of each faculty in regular and distance learning. After results, the paper includes discussion and some of the recommendations for next investigations.

## II. ACCREDITATION AND QUALITY ASSURANCE IN HIGHER EDUCATION

The modern University faces the challenge of adjusting to a complex world with new demands for professions and skills associated with the knowledge society. To successfully meet these important challenges, it is fundamental that universities'

governing bodies have good relation with the academic community in order to respond to the social and productive needs of its environment. [7] Good practice showed that the accreditation system is an appropriate way to organize a national educational system and to improve the quality of the services. As explained by [8], accreditation was born in the U.S. as voluntary and professionally initiated the process. Most accreditation programs focus on quality improvement as well as on quality assurance, and many accreditation initiatives are government initiated. [9] Recently, existing quality assurance concepts, criteria and assessment methodologies for new developments in higher education has been fuelled to a great extent by the rapid growth in distance education, open and distance learning, e-learning, distributed learning or whatever concept is used. [10] Therefore, it is instructive to look at the quality assurance and accreditation issues raised by distance education and e-learning and the recent initiatives taken in this regard. The growth of distance learning has an international dimension as well, since countries around the world are using distance learning technologies to enlarge their course, program, and degree offerings and to import and export education programs and services. [11] Therefore, the accreditation is recognized as a necessary tool for quality assurance in distance learning too.

“One of the key functions of accreditation in education is to provide some measure of validity to the credential acquired by students” [12] and “met all the specified measures of quality” [13]. In addition, [14] defined accreditation in education as “the recognition given by an association or agency to institutions that satisfy specific standards of educational quality”. Quality assurance is “a process where key elements of higher education are measured. Most quality assurance schemes begin with a self-study or self-review of the institution or program being evaluated”. [6] They claimed that self-study usually culminates in a report that documents the process and the results. The report is typically considered by a team of external evaluators who visit the institution and write a report of their own, assessing the validity of the self-study. According to [15] some of benefits of accreditation in higher education are shown in Table 1.

**Table1.** Potential Benefits of Accreditation in Faculties

Benchmarking	Accreditation allows faculties to determine how their program compares to other similar faculties.
Internal Assessment	Accreditation makes faculties reexamine how they do things and what can be done to improve.
Peer Review Consulting	As part of the accreditation process, a faculty gets consulting from the Peer Review Team on what it can do to improve its programs.
Examine Continuous Improvement Processes	The accreditation review causes a faculty to examine its internal processes for maintaining and improving its programs.
External Recognition	Accreditation gives a faculty external recognition among its peers and in the

	community it serves.
Competition For Students	Accreditation can give a faculty an advantage in attracting quality domestic and international students.
Fund Raising	Accreditation gives a faculty an edge in fund raising over its non-accredited competitors.

Many authors wrote about accreditation and quality assurance in areas such as health services [16] and education. In Table 2 there are some of the literatures which investigated accreditation and quality assurance in higher education in different countries.

**Table2.** Literatures about accreditation and quality assurance

Authors	Topics
[7]	Accreditation in higher education in Chile
[17]	Quality assurance and accreditation in higher education
[18]	International accreditation in Taiwan higher education
[19]	RPL for accreditation in higher education
[20]	Accreditation in Vietnam’s higher education: focus on input or outcome
[21]	Quality systems in private higher education in Kuwait
[10]	Trends and models in international quality assurance and accreditation in higher education in relation to trade in education services
[22]	Quality assurance of engineering education through accreditation
[23]	Accreditation and Religiously Affiliated Law Schools
[24]	Understanding Accreditation: Contemporary Perspectives on Issues and Practices in Evaluating Educational Quality

### III. ACCREDITATION SYSTEM IN HIGHER EDUCATION IN SERBIA

Serbia operates an integrated national quality assurance system complying with the Standards and Guidelines for Quality Assurance (QA) in the European Higher Education Area. The Commission for Accreditation and Quality Assessment (CAQA) is legally responsible for organizing and monitoring the quality assurance scheme for all higher education institutions in Serbia. During the development of the QA system, the European Standards and Guidelines (ESG) were used as the main source of information. Higher education institutions have a legal obligation to develop internal quality assurance systems. Implementation of the standards for internal quality assurance is in the first place the responsibility of the institutions. Eight public universities (around 85 faculties), eight universities established by non-state founders (around 40 faculties) and more than 80 colleges of applied sciences (under the primary domain of the CAQA) are subject to compulsory national accreditation. [25] Studies conducted

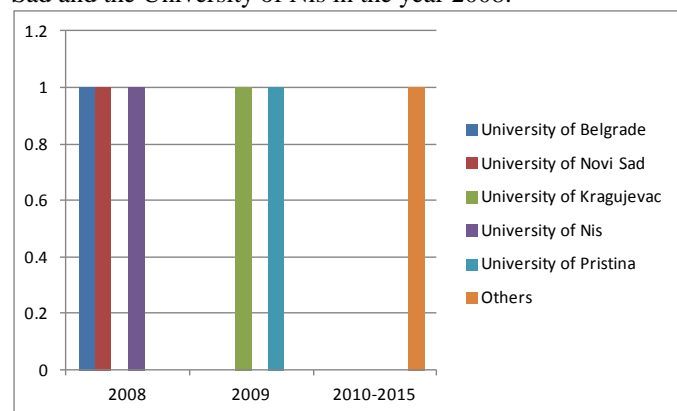
at the faculties of the University are adapted to the principles of the Bologna Declaration.

To find significances between scientific fields in which universities belong and the year of accreditation, firstly we classified them into six areas:

1. ET - Engineering and Technology,
2. NS - Natural Sciences,
3. MH - Medical and Health Sciences,
4. SS - Social Sciences,
5. H – Humanities,
6. IMT - Interdisciplinary, Multidisciplinary and Transdisciplinary Sciences.

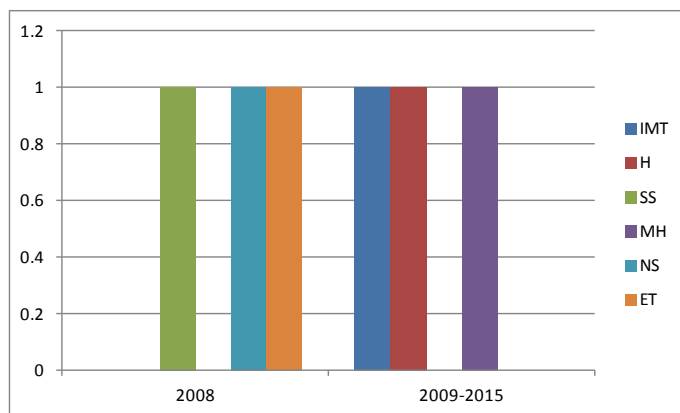
This section encompasses the situation regarding accreditation in higher education at Serbian Universities. It also gives a comparison analysis between public and private universities by the accreditation process. We investigated trends concerning data from the Serbian National Accreditation Body report by different scientific fields Serbian public and private universities belong to, and also the year of their first accreditation. In Serbia we recognize eight public universities: University of Belgrade, University of Arts in Belgrade, University of Novi Sad, University of Kragujevac, University of Nis, University of Pristina, Public University of Novi Pazar and University of Defense. Also, we recognize 11 private universities: Singidunum University, Megatrend University, University Business Academy in Novi Sad, Edukons University, Metropolitan University, Union University, Union - Nikola Tesla University, Alfa BK University, Europe University, University of Fine Arts, University of Novi Pazar.

Differences in years of first accreditation for public universities are given in Fig. 1. We can see that first had accredited the University of Belgrade, the University of Novi Sad and the University of Nis in the year 2008.



**Fig. 1** Years of first accreditation at public Serbian Universities

Regarding the Scientific fields by year of first accreditation, the chart clearly shows that first had accredited Social Sciences, Natural Sciences and Engineering and Technology fields. (Fig. 2)



**Fig. 2** Scientific fields by year of first Accreditation

Also, we concluded from the Serbian National Accreditation Body report that private universities have accredited a year before (2007) all public universities. If we compare data for the accreditation process for DL programs at universities, we can conclude that private and public universities had accredited in the same year, precisely at 2009. for the first time.

#### IV. CONCLUSIONS

In the light of growing competition between state and privately owned (for-profit) universities, we analyzed the ways both groups strive to assure and ensure satisfaction of students and other stakeholders and interested parties of higher education system. Some of the issues regarding these private-public higher education institutions competition in Serbia were explained by [26]. For example, it includes lack of national university ranking system to shed some light on the quality of both the public and private academic sector or the fact that students can attend only public universities for free, as the Republic of Serbia does not provide scholarships for the private educational institutions.

As far as we speak about the core accreditation process, the things work this way: „The Commission for Accreditation and Quality Assessment (CAQA) is legally responsible for organizing and monitoring the quality assurance scheme for all HEIs in Serbia. CAQA is formed (June 2006) as an independent expert body of the NCHE. CAQA designs standards, protocols and guidelines for the NCHE's approval and publication as bylaws and helps institutions in creating their respective quality management systems. CAQA carries out quality assurance processes in forms of accreditation and external quality assurance of all higher educational institutions and study programmes according to LHE. During the development of the QA system, the ESG document was utilized as the main source of information. Therefore, the existing accreditation standards, which do include QA topics, fully comply with the ESG.” [27]

The analysis of official data provided have shown that within five Serbian public universities 3 of them fulfilled accreditation requirements for the following scientific fields in 2008 (according to the categorization from [28]):

- engineering and technology,
- natural sciences,

- social sciences.

On the contrary, private universities have shown more offensive approach to quality assurance and entered the accreditation process a year earlier, in 2007. This may be explained through the fact that these private universities in Serbia were founded much later than state universities [29] and that they often encounter problems with public opinions and perceptions on the quality of service they provide, sometimes for very objective and undisputable reasons (see, for example [30]).

Within the distance learning studies curricula market, the first to enroll the full state accreditation was a private university that received accreditation in the field of social sciences during 2009, while the first public university that was accredited for the DLS was from the area of engineering and technology during the same year. Reference [31] discussed that this field of competition among academic institutions in Serbia becomes more and more popular and attractive, as the new education platforms emerged with the growing interests – curricula in English language, joint master programs with other Universities, partnerships with different organizations regarding students' internships etc.

As opposed to the findings of [32], who compared satisfaction with administrative work at public vs. private universities to show that there were very few differences in their target group and those were limited to the satisfaction with extrinsic rewards, we can finally conclude that competition in produces much bigger variations, as it is shown in this paper.

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