

HIGHER EDUCATION QUALITY EVALUATION FROM THE STAKEHOLDERS' PERSPECTIVE AS A POTENTIAL OBJECT OF SCIENTIFIC RESEARCH

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Abstract

From the perspective of this article the most important stakeholders in higher education are especially: State represented by the Ministry of Education, students, teachers and employers of alumni. Given that the issue of quality management is one of the most important objects explored by the management science, the article seeks to answer the question of whether and to what extent these stakeholders may be the object of scientific research in the conditions of the Czech Republic. It concludes that students and teachers are possible in full extent, while the other two only partially.

Key words: higher education, quality evaluation, stakeholders, SERVQUAL, scientific research

1. INTRODUCTION

Quality Management (QM) is gradually expanding its reach. Beginning with the natural starting field of material production, now QM also expands to the intangible products such as software, film or music and continues to e.g. car insurance, or to treat bronchitis. From this perspective it is not surprising that the quality of HE services plays an important part in schedules of management of departments, institutes, faculties and schools, as well as other stakeholders, such as employers of university graduates or even the Ministry of Education, Youth and Sports, which bears a supreme responsibility for it. This list, of course, cannot miss the most important stakeholder group - the students themselves, whom the education is addressed.

In order to reach the highest possible level of performance and achieve the appropriate results, quality management must necessarily be able to rely on relevant scientific knowledge. These can be divided into two types:

- **General**, which can be applied at any QM object or process. Tested core of this knowledge is captured in standards EN ISO 9000, 9001 and 9004.
- **Specific**, which concern QM of a specific, narrowly defined type of object or process.

This article deals with the QM in HE (quality management in higher education), i.e. quality management of a system of hundreds processes, which de facto externally influence an extraordinarily complex object - a brain of a student - which cannot be seen directly, but only through its external manifestations.

The final **product** of these educational processes is an **education** of a student, i.e. a set of specific knowledge and skills. Its formalization is the qualification of the student, expressed by a diploma or a degree.

1.1 Relationship of Processes Quality and Product Quality

Modern general practices of quality management adhere to the "pull" principle and therefore, the quality criteria relating to the **product** are determined by customers. From the perspective of operational management, the quality of the final product is determined by a direct consequence of quality of all **processes** that help create the product. The processes consist of individual **operations**, whose quality is an essential **element** which contributes to the quality of the process and thus also on the quality of the product. Its essence is the pursuit of continuous improvement.

In this context, the standard EN ISO 9000 recommends a method PDCA (= Plan, Do, Check, Act). The difference between the second and fourth stage is that the stage "Do" means "implement a procedure into practice," while "Act" means "use it constantly and try to achieve an improvement of individual operations and the whole process".

This procedure can be applied to all processes, from the selection of suppliers and providing inputs to the supply of a product to the outlet store, or even directly to the customer.

1.2 Education Quality Specifics

It is not possible to mention all specifics of the general model in this chapter, there is a lot of them. Therefore, only those that relate to the topic of the paper will be mentioned.

The first particularity is that the product of HE is a service (education). This already implies the specifics of defining relevant quality and, consequently, quality assessment (Lewis, B. R., Mitchell, V. W. 1990; Dotchin, J. A., Oakland, J. S. 1994; Gaster, L. 1995; Asubonteng, P. et al. 1996; Spreng, R. A., Mackoy, R. D. 1996; Shemwell, D. J., et al. 1998), wherein the method of evaluating the quality of service SERVQUAL (Parasuraman, A. et al. 1988; Zeithaml, V. A. et al. 1986) is specific for services. It could be used in evaluating the quality of a product too, but it would hardly brought something new and would be more complex than other methods (Asubonteng, P. et al. 1996).

The main particularity lies in the fact that **the concept of customer has three meanings:**

- a) Customer, who pays for the service, in the case of public universities and faculties, is the **state**, represented by the Ministry of Education.
- b) Customer in terms of Checkland methodology as described eg. in the books of authors (Cerna, 2008) and (Wilson, 2001), where e.g. customer in the auto service is the car, not the owner; such customer is sometimes called the "internal customer" and is de facto the object on which the service is carried out; in the case of services it is a **student** - see also (Weaver 1976; Robinson and Long, 1988; Doyle, 1998; Palihawadana and Holmes, 1999).
- c) Customer to whom a student provides an opportunity to use the results of the service is the **employer** of (mostly former) student.

Within the meaning of Checkland methodology, the activity (service) of education in so-called "Conceptual Model" is decomposed into sub-activities - teaching of many subjects, determined by the curricula, where the actor/executor of each of them is one or more **teachers**.

In this section, four types of HE stakeholders have been named: the state, students, employers and teachers. In the following chapters, these stakeholder groups will be discussed individually and the breadth and possibilities of scientific research of how to assess the quality of HE will be outlined.

2. ROLE OF THE STATE IN THE QUALITY MANAGEMENT OF HIGHER EDUCATION IN THE CZECH REPUBLIC

As mentioned in the previous chapter "Education Quality Specifics", the **state** is a very important stakeholder in higher education. Its **role** in quality management includes in particular the following processes:

- A) It **certifies the quality of the educational process** for all HEIs and thus the quality of the skills that students acquire.
- B) It significantly **contributes to the funding of public universities**, which meet the prescribed quality parameters.
- C) It represents the interest of the citizens of the state in ensuring that the country has **enough** needed and high-quality **university-educated professionals**.

Some countries such as the Czech Republic, fully entrust these issues into the hands of the government, i.e. Ministry of Education. For fulfilling point A and partially also C, the Ministry nominated a special accreditation commission.

Institutions that are engaged in higher education quality in EU are grouped in the European Association for Quality Assurance in Higher Education (ENQA). Some countries, particularly for the points A and C, appoint an institution independent of state power. Inspiring example is Ireland, where QQI, i.e. Quality and Qualifications Ireland operates. On their website <http://www.qqi.ie/>, many interesting activities can be found.

The Czech Republic Act No. 111/1998 Coll. as amended, specifically its Sections 78 to 86, establish an accreditation process as a form of state care about the quality of HE and define the mission of the **Accreditation Commission of the Czech Republic (AC)**, the statute of which was determined in accordance with Section 83 by the decree of the Czech Government. AC issued a methodological tool for the evaluation of HEIs and their components. In addition, AC publishes on its websites publicly accessible records of their meetings. These can be a good basis for scientific research. Objectives of the research can be the following ones:

- Description of **the most common weaknesses** that the applicants for accreditation might be accused of by the AC.
- Assessment of their **compliances with applicable legislation**.
- Formulation of the **recommendations for the HEIs' management** – as to avoid the mentioned shortcomings.

On the contrary, among the goals it is not realistic to expect the most natural objective that should be fundamental for research on the role of two other stakeholders, namely students and teachers, who will be addressed in Chapter 4. The aim is to propose a method for evaluating the quality of higher education with the highest predictive value from the perspective of those entities. A legitimate concern can be expressed, because the process of evaluating the quality of HE, similarly to the composition of the AC, cannot escape the effects of a greater forces than those purely professional.

2.1 The Data File, the Size of Primary Data

The AC publishes records of its meetings on their website. There were 51 meetings in last 10 years from 2006 to 2015. Each record entry contains about 40-90 pages of text, on each page there is an average of at least 10 evaluation notes stating "Publication activities of some teachers do not relate to subjects which they guarantee." and many others. Altogether, it will be possible to count their total number in the order of at least a thousand, maybe more.

2.2 Methodical Apparatus and Expected Results

When processing the data described above, it will be necessary to pass the following stages:

- Creating a **classification system** and its application to the data file.
- **Statistical analysis** of classification classes and subclasses.
- Interpretation of results for **management decision support**.

The expected results could be: Given that in x% of critical opinions stated by the AC contain a low level of teachers' publication activities in the considered field and in y% cases the AC alleges that the publications of some teachers professionally do not relate to subjects which they guarantee, we recommend to managers of higher education institutions to create a system of incentives for the creation of publications, focusing on their guaranteed areas.

3. ROLE OF EMPLOYERS IN INFLUENCING THE QUALITY OF HIGHER EDUCATION IN THE CZECH REPUBLIC

In May 2012, the European Commission invited Member States to take measures at national level which are aimed at increasing the employability of graduates. These measures should be based on the interaction of schools with graduate employers.

As it is evident e.g. in QQI Dublin's "Education and Employers" (2014), the **engagement of employers** can take different forms, for example:

- a) Allowing **professional practice and excursions**.
- b) Direct **participation in teaching**.
- c) Cooperation in **developing curricula**.
- d) Cooperation in the **accreditation process**.
- e) Support of the **employment of graduates**.

In terms of the topic of this article, i.e. evaluation of higher education quality, the forms noted above have various positions. Thus, paragraph e) testifies to the quality of education only partly and indirectly: when graduates of some faculties find a job without problems and do not need any support, it is perhaps more because of the excess of demand for them than because of the quality of their education. Despite this, very ill-prepared graduates would probably not get employed by anyone, even in case of this excess of demand. The fact whether a company allows practice for students or excursions for the faculty (paragraph a) or whether its employees are involved in education process (paragraph b) states even less about the quality of education.

3.1 Cooperation of Employers in the Creation of Curricula

The idea of engaging future employers of graduates in developing curricula is not new, not even in the Czech Republic. For example, the Faculty of Management, University of Economics in Prague, worked closely with the management of the company Rohde and Schwarz, located in Vimperk (South Bohemia), when designing the profile of the course "Operational management processes and supply chains", which is also the employer of its graduates. The object of the research activity could be a systematization of this process together with utilizing foreign knowledge, e.g. from institutions associated in ENQA.

3.2 Cooperation of Employers in the Accreditation Process

It is known that AC of the Czech Republic uses the experience of its members, many of whom are working closely with practice - some in the form of part-time jobs, others cooperating on creative solutions to practical problems. The object of the research activity might be a survey of foreign research findings, e.g. from institutions associated in ENQA.

3.3 Indirect Evaluation of Higher Education Quality by Employers

Czech Labour Office regularly monitors and once in half a year publishes statistics of unemployment for various higher education fields. However, the statistics are quite complex. Therefore, the Education Policy Centre at the Pedagogic Faculty of Charles University publishes on their website "<http://www.strediskovzdelavacipolitiky.info/>" summaries of how the graduates from all faculties of all higher education institutions in the country perform on the labour market. There is the unemployment rate, average monthly income, the proportion of graduates who stayed working in the field they had studied, range of their knowledge and skills used at work, job satisfaction and qualification intensity. The object of the research activity may be creating of **one comprehensive indicator of education quality**, resulting from the application of the characteristics of the labour market, which is an indirect assessment of the quality of HE by employers, and comparing its value with assessments from other stakeholders.

4. EVALUATION OF HIGHER EDUCATION QUALITY IN THE CZECH REPUBLIC FROM THE PERSPECTIVE OF STUDENTS AND TEACHERS

The issue of evaluating the quality of higher education by students is an object of inquiry of both Czech and foreign scientific communities, as can be seen in older articles (e.g. Morstain, 1977) and more recent articles (Ramsden, 1991; Elliott and Healy, 2001; Svoboda and Cerny, 2013a or Svoboda and Cerny, 2013b). There are several basic directions for further research:

- Answering the question whether and how a very subjective **evaluation of SERVQUAL type** can be used for a comparison of two similar universities / faculties, in both domestic and international conditions
- Finding of **more objective methods** than SERVQUAL
- Finding of ways to **compare the evaluation of two similar universities / faculties** from the perspective of various stakeholders
- Finding of methods to transform the evaluation results from the perspective of various stakeholders into a form **usable by management of universities / faculties** in their managerial decision making.

While the development of HE quality evaluation issues from student perspective is very broad, similar publications studying HE quality evaluation from teacher perspective are unknown to the authors. Therefore, two basic scientific research problems can be formulated:

P1. Which of the results achieved in the field of HE quality evaluation from the student perspective is possible to modify (and how?) for the evaluation from teachers' point of view?

P2. What new methods propose for the evaluation by teachers in order to reach maximal explanatory value of the results?

5. CONCLUSION

After the necessary initial inclusion of the issue in the context of quality management theory, the paper analyses four main stakeholders, i.e. the state, employers, students and teachers, in terms of the possibility to subject their methods for evaluating the quality of higher education to scientific investigation. In four main chapters of the paper, about a dozen specific issues that the researchers can pursue in the future is set out.

The expert group for quality management in higher education of the Faculty of Management, University of Economics, Prague, intends to address these issues and also accepts proposals for cooperation from colleagues from both Czech and foreign higher education institutions of managerial or similar focus.

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REFERENCES

- Asubonteng, P. et al. (1996). SERVQUAL revisited: a critical review of service quality. *Journal of Services Marketing*, Vol. 10, No. 6, pp. 62-81.
- Council conclusions on the employability of graduates from education and training (2012). *Council of the EU. 3164th EDUCATION, YOUTH, CULTURE and SPORT Council meeting*, Brussels, 10 and 11 May 2012.
- Cerna, A. (2008). *Methods of operations management*. Prague: Oeconomica. ISBN 978-80-245-1325-6.
- CSN EN ISO 9000:2001. *Quality management systems - Fundamentals and vocabulary*.
- CSN EN ISO 9001:2001. *Quality management systems - Requirements*.
- CSN EN ISO 9004:2001. *Quality management systems - Guidelines for performance improvements*.
- Czech Republic Act No. 111/1998 Coll.,
http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/educ/130142.pdf.
- Dotchin, J. A., Oakland, J. S. (1994). TQM in services, Part I: understanding and classifying services. *International Journal of Quality and Reliability Management*, Vol. 11, No. 3, pp. 9-26.
- Doyle, J. L. (1998). Class, consumerism and education. *International Journal of Educational Management*, Vol. 12, No. 4, pp. 183-187.
- Education and Employers - A Strategic Approach to Employer Engagement* (2014), QQI Dublin, Ireland, October 2014.
- Elliott, M. K., Healey, A. M. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of Marketing for Higher Education*, Vol. 10, No. 4, pp. 1-11.
- Gaster, L. (1995). *Quality in Public Services*, Buckingham: Open University Press.
- Lewis, B. R., Mitchell, V. W. (1990). Defining and measuring the quality of customer service. *Marketing Intelligence and Planning*, Vol. 8, No. 6, pp. 11-17.
- Methodological tool for evaluators (2015). Evaluation of universities and their components by the Accreditation Commission. Issued by the Accreditation Commission of the Czech Republic, November 2015.
- Morstein, B. R. (1977). An analysis of student satisfaction with their academic programs. *Journal of Higher Education*, Vol. 48, January-February, pp. 1-16.
- Palihawadana, D., Holmes, G. (1999). Modeling Module Evaluation in Marketing Education. *Quality Assurance in Education*, Vol. 7, No. 1, pp. 41-46.
- Parasuraman, A., Berry, L. L., Zeithaml, V. A. (1988). SERVQUAL: a multiple item scale for measuring service quality. *Journal of Retailing*, Vol. 64, No. 1, pp. 12-40.
- Ramsden, P. (1991). A performance indicator of teaching quality in higher education: the Course Experience Questionnaire. *Studies in Higher Education*, Vol. 16, No. 2, pp. 129-150.
- Robinson, A., Long, G. (1988). Substances vs trapping in marketing non-advanced F. E. *Journal of Further and Higher Education*, Vol. 21, No. 1, pp. 42-53.
- Shemwell, D. J., Yavass, U., Bilgin, Z. (1998). Customer-service provider relationship: An empirical test of a model of service quality, satisfaction and relationship oriented outcome. *International Journal of Service Industry Management*, Vol. 9, pp. 155-168.
- Spreng, R. A., Mackoy, R. D. (1996). An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing*, Vol. 72, pp. 201-214.

Svoboda, P., Cerny, J. (2013). Customer Satisfaction and Loyalty in Higher Education, Knowledge Management and Information Sharing, Vilamoura: SCITEPRESS, pp. 431-436. ISBN 978-989-8565-75-4.

Svoboda, P., Cerny, J. (2013). Quality of Higher Education Institutions as a Factor of Students' Decision-Making Process. *Intellectual Capital, Knowledge Management and Organisational Learning*, Reading: ACPI, pp. 622-631. ISBN 978-1-909507-77-7.

Weaver, T. (1976). What is the good of higher education? *Higher Education Review*, Vol. 18, No. 3, pp. 3-14.

Wilson, B. *Soft systems methodology: conceptual model building and its contribution*. Chichester: John Wiley & Sons, 2001, ISBN 0-471-89489-3.

Zeithaml, V. A., Parasuraman, A., Berry, L. L. (1986). SERVQUAL: a multi-item scale for measuring customer perception of service quality. *Journal of Retailing*, Spring, pp. 12-40.