

THE POTENTIAL OF BENCHMARKING AT UNIVERSITIES

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ABSTRACT

The article deals with applicability of benchmarking at universities in the Slovak Republic. It represents one of the basic tools for improvement in the area of quality management. The empiric study is based on generally valid principles and steps of benchmarking and illustrates the potential of applicability of this tool at the university. Internal benchmarking was used in all faculties of University of Žilina and its metrics was adopted from the CAF model (Common Assessment Framework). Benchmarking was applied to assess the level of faculty autonomous systems for collection of feedback aiming to identify the best practice among the participating parties. Usage of this tool is in compliance with the long-term strategy of the University of Žilina in the area of quality management.

Keywords: Benchmarking, Quality improvement, Higher Education, Slovak Republic, Feedback system.

Introduction

Benchmarking belongs to basic tools of continuous improvement and represents a most suitable element in the process of quality assurance concerning the specific features of university management. Benchmarking is a process "by means of which we aim to achieve a level of efficiency in a given area that is currently better than ours" (GRAUZEL, 2003).

The main idea of this approach is based on taking over the best practice from organisations which provide their processes better – it is easier to use something that has already been invented than to invent it again. Benchmarking identifies the best experience from execution of a certain type of process – called benchmark - which consequently serves as the standard of exceptionality, i.e. the level the organisation means to achieve. Benchmarking is a process executed systematically and can have several forms, some of which are suitable for the environment of universities (BQF, 2013):

- Strategic benchmarking - includes examination of the long-term strategy (key competence, development of new products, improvement of the ability to cope with changes).
- Performance benchmarking (competitiveness benchmarking) – is based on measuring the performance features related to the key products in the same branch. In order to protect confidentiality this type of analysis is often executed by trade associations, i.e. by a third party.

- Process benchmarking - based on improvement of critical processes and operations by comparing the best organisations executing similar processes as the organisation in question. This type of benchmarking often results in short-term benefits.
- Functional benchmarking – compares approaches from various branches in order to find innovative ways to improve processes which as a rule leads to rapid improvement.
- Internal benchmarking – includes comparison within the same organisation. A higher level of information availability is advantageous, although the absence of innovation may be a disadvantage.

The university environment is very suitable for applying benchmarking from the aspect of information availability. It is possible to use practically any form of benchmarking in the relevant area. The environment provides particularly good conditions for internal benchmarking which can be used in form of comparison of faculties in various areas. As a rule, various orientation of faculties of a specific university and their autonomy may provide suitable opportunities to take over the best practice.

1 Problem Definition

In the area of European universities the national legislative frameworks have adopted the ESG standard (European Standards and Guidelines) to a large extent. In the survey examining the application of this norm by universities executed by EURASHE, 2/3 of the participating universities stated that this norm is explicitly or implicitly required by the legislation of their country (EURASHE, 2012). This standard was based on the ENQA initiative as a framework for quality assurance at universities since the traditional models applied mostly in the business sphere were not adopted by universities particularly well (ROSA, 2012). The ESG standard is structured into three main parts, first of which determines the requirements for the universities' internal university education quality assurance, second of which concerns the area of external quality assurance of higher education whereas the third one determines the requirements for external quality assurance agencies of higher education (ENQA, 2009). The most frequently used part is naturally the first one on basis of which the European universities construct/revise their quality management system.

In this part, the ESG also states that universities must ensure "regular feedback from employers, representatives of the job market and other relevant organisations" (ENQA, 2009). A relatively high level of autonomy in university (faculties) management in the Slovak Republic represents a good precondition for application of benchmarking. Various faculties of University of Žilina apply different approaches feedback collection – from the simplest to the most sophisticated - concentrating on various target groups, i.e. parties involved.

The authors' task was to systematically process the analytic groundwork of this issue in faculties and present them in a consistent and comprehensive form. The results of the analysis should identify the areas to improve and the factors critical for the success of the faculties which have achieved exceptional levels in the given areas.

2 Methods

The first step was to deal with terminology. The ESG determines three groups from which the university must obtain feedback. The first one consists of employers who represent the "recipients" of the graduates, i.e. who are the representatives of a branch of economy the graduate is suitable for concerning his professional profile. Comparative analysis examined the relations among individual study programmes and branches of economy according to the national economy classification SK-NACE Rev.2. An example of this interrelation is shown in the following chart.

The second group included the representatives of the labour market. In the Slovak Republic, these are mostly mediation agencies which are the connective element between the labour demand and offer. The third group represents further relevant institutions defined within the analysis as follows:

- graduates
- Central Office of Labour, Social Affairs and Family (governmental institution covering the employment issue)
- superior institution (Ministry of Education, Accreditation Committee)

2.1 Research Object

The research object was the level of various forms of feedback collection. A preliminary analysis identified 6 types of feedback collection:

- information obtained personally from the employers,
- information obtained from the employers via electronic questionnaire,
- statistics of the Central Office of Labour, Social Affairs and Family obtained online,
- information on university requirements from superior institutions obtained online,
- information from mediation agencies obtained by examining the relevant job offers (requirements for the graduates),
- information from the graduates obtained via electronic questionnaire.

2.2 Data Collection Process

The data collection was executed in form of seven half-structured workshop (one per every faculty) each of which involved 6 to 9 management employees of the faculty (heads of the departments, guarantors). Every participant determined the maturity level of the given area (research object) which according to them the faculty had achieved. The evaluation was in form of self-evaluation whereas the maturity levels were classified into six intervals according to the CAF methodology (EIPA, 2013). 5 of the 6 areas were assessed on the basis of a result panel. The values were recorded and discussed by the working group until the final maturity value was eventually determined as a result of consensus of the participants.

2.3 Data Processing

The data was recorded and processed in the spreadsheet application MS Excel and a radar diagram was used for the final interpretation. Although the standard determines that the benchmark should be normalized to the value of 1 (CEN, 2006), the researching party chose the etalon in the value of 100 – the highest maturity level – in order to trace the continuous improvement principle more precisely. In order to determine the best practice a detailed description of the activity covering the given process in every faculty was recorded.

3 Results

The data collection was executed from June to September 2012. The information was obtained altogether from all seven faculties of the University of Žilina. The results of maturity of the feedback collection system of individual faculties is shown in Chart 2.

None of the faculties of the University of Žilina had developed a system of feedback collection that would fully cover the implementation of requirements of an involved party into preparation, execution and monitoring of the education process. In spite of this, several faculties show significantly better results in certain areas than other faculties. The aim of this chapter is to identify the reasons of high performance in the given area – that is to answer the key question: "Why is this faculty better than the other ones? What

does it do differently?". The following chart shown a summary of the main best practices in given areas of feedback collection.

The potential of benchmarking was identifies in the areas containing great differences among individual faculties. Consequently the way the faculty with the best value achieved executes the given area was recorded. This way was consequently implemented into the systematic tool for feedback collection and was standardized also for the other faculties.

4 Discussion and Recommendations

The analysis presented outputs of benchmarking that was applied only to one (key) process – the feedback collection system. A similar approach can be used also to asses further processes run at a university. There are generally three types of processes (AALST, 2004): Primary (operational) processes – the processes which result in a product. In the business sphere, these are the types of processes that bring the finance, i.e. the ones the customer pays for. Secondary (supporting) processes – those which support the primary processes. Tertiary (management) processes – the processes which coordinate primary and secondary processes.

Primary (operational) processes at a university:

- education process – consists of sub-processes such as preparation and revision of study subjects, tuition itself, evaluation of students, consultancy and discussing projects,
- research and development process – processes connected with research projects such as preparation and management of international cooperation, grant activities, technology transfer etc.

Secondary (supporting) processes at a university:

- human resources management,
- accountancy,
- administration support,
- procurement,
- business trips assurance,
- marketing and promotion.

Tertiary (management) processes at a university:

- strategic and quality management,
- management documentation,
- allocating resources to primary and secondary processes,
- designation of the measurement system,
- supervision.

Implementation of systematic benchmarking to individual processes may represent an initial framework for taking over the best practice. If these faculty processes are managed with a high level of autonomy it is possible to assume that they will be managed differently. A different type of management (or a more detailed way of assurance via activities) can be significantly better/worse than the others. By identifying the ways of executing specific processes more effectively, these ways may be consequently standardized to the whole university which will most probably lead to increase in total efficiency as well.

Conclusion

The international pressure on increasing quality in Europe is obvious. ESG as a basic framework for quality management was relatively well adopted by universities (in comparison with the common TQM or ISO

approaches)and provided a good starting point for extensions of management systems at universities. Benchmarking as the basic tool of improvement represents a relatively easy way of increasing the performance of a university in any area based on systematic comparison of the same/similar processes. In spite of that benchmarking is only rarely applied at universities, just like general majority of approaches to quality management overtaken from the business sector (ROSA, 2012). However, the potential for improvement this tool contains represents also according to the presented analysis a relatively easy and efficient application in the university environment and is a good precondition to continuous quality increase.

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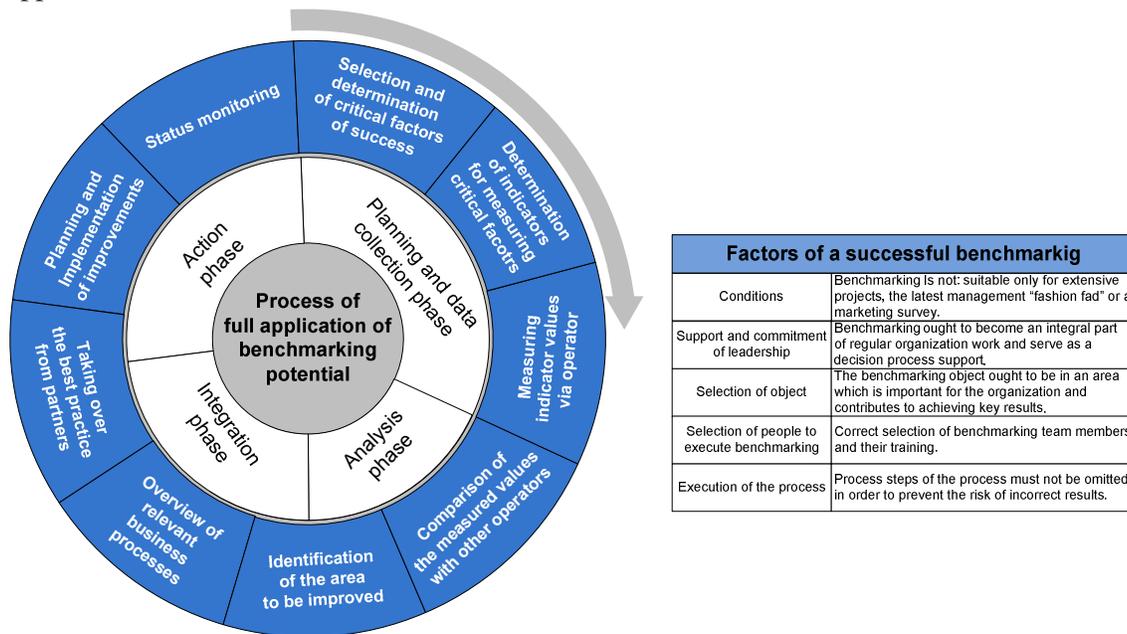


Figure 1 Process and factors of a successful benchmarking
Adopted according to(GRAUZEL, 2003)

PHASE	ENABLERS PANEL - CLASSICAL SCORING	SCORE
	We are not active in this field, we have no information or very anecdotal.	0-10
PLAN	We have a plan to do this.	11-30
DO	We are implementing / doing this.	31-50
CHECK	We check / review if we do the right things in the right way.	51-70
ACT	On the basis of checking / reviews we adjust if necessary.	71-90
PDCA	Everything we do, we plan, implement, check and adjust regularly and we learn from others. We are in a continuous improvement cycle on this issue.	91-100

RESULTS PANEL - CLASSICAL SCORING	SCORE
No results are measured and/or no information is available.	0-10
Results are measured and show negative trends and/or results do not meet relevant targets.	11-30
Results show flat trends and/or some relevant targets are met.	31-50
Results show improving trends and/or most of the relevant targets are met.	51-70
Results show substantial progress and/or all the relevant targets are met.	71-90
Excellent and sustained results are achieved. All the relevant targets are met. Positive comparisons with relevant organisations for all the key results are made.	91-100

Figure 2 Maturity Level Assessment Framework
 Adopted according to(EIPA, 2013)

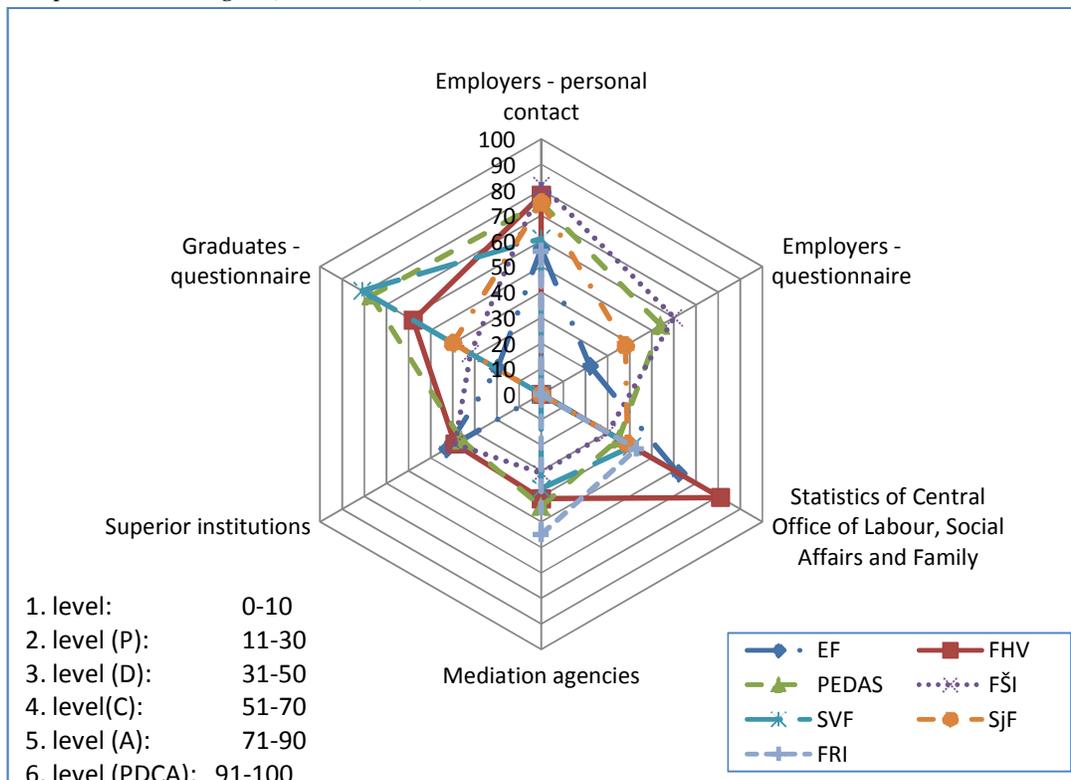


Figure 3 Examples of outputs of the analytic phase of benchmarking at a university
 Adopted according to(MADŽÍK, 2013)

Chart 1 Overview of interrelation of study programs and economy branches (abridged)

Faculty / study programme	Employers target group	SK NACE Rev.2
Bachelor study programmes (FOETC-bc)		
1. Road transport	Private and public road transport companies (national and international)	49
2. Railway transport	Railway transport companies, companies with siding compounds, delivery companies, technical schools	49
3. Air transport	Organisations of public air transport and national administration (providers of transport and logistics services)	51
4. Professional pilot	Air traffic operators	51
5. Shipping	Transport and shipping companies (national and international), tourist industry companies with river or sea transport	50
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Chart 2 Results of maturity assessment of feedback collection systems of individual faculties of the University of Žilina

Faculty / Form of feedback collection	FEE	FH	FOETC	FSE	FCE	FME	FMSI
Employers - personal contact	57	78	75	82	61	75	56
Employers - questionnaire	22	0	54	60	0	38	0
Statistics of Central Office of Labour, Social Affairs and Family	62	81	35	30	41	39	43
Mediation agencies	0	41	44	31	37	0	55
Superior institution	43	39	36	39	0	0	0
Graduates - questionnaire	20	58	77	32	81	40	0
Average (total points)	34	49,5	53,5	45,7	36,7	32	25,7

Chart 3 Identified best practice in the given area of feedback collection

Areas of feedback collection	Best practice	Value	Faculty
Employers - personal contact	Personal contact of faculty's employees with employers (during state exams, conferences etc.); detection of required knowledge and skills of graduates, satisfaction	82 (A)	FSE

	with graduates employed in the given company; planned meetings that complement the framework of study programmes revisions. Based on the information from employers, measures are taken to change the content of tuition (although the extent of corrections is limited by the legislative framework).		
Employers questionnaire	- Detection of required qualities and skills; executed on the basis of regular survey events. The results are consequently compared to the real goals of education and meeting the employers' requirements is assessed.	54 (C)	FOETC
Statistics of Central Office of Labour, Social Affairs and Family	of Monitoring the unemployment rate of the Faculty of Humanities of the University of Žilina based on the final achieved level of study; the Faculty of Humanities follows yearly rate of unemployment of its graduates and attempts to promptly react on the labour market situation – e.g. by lowering the number of enrolled students of study programmes of social pedagogy and mediatics due to oversaturation of the labour market.	81	FH

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