

OVERVIEW ON ACADEMIC PERFORMANCE OF UNIVERSITY OF SHKODRA “LUIGJ GURAKUQI”

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Abstract

The academic quality of universities usually depends on several factors like, number of branches, educational level of arrival students, available laboratories and ambients, funds, specialization of academic staff, their participation on international scientific events, peer review publications, etc. The last is one of the most important factors, which indicate directly scientific performance of a university. Several databases/systems calculate academic performance, based on the number of scientific publications and their citations.

In this analysis we are based on the indications of eight databases; Scopus, ScienceDirect, Microsoft Academic Search, Scirus, Harzing's Publish or Perish, WorldCat, WorldWideScience and SpringerLink. The overall results of this analysis show that despite the excellent achievements in the university, it requires a better performance on the scientific publications.

Keywordsl University of Shkodra, academic performance, peer review publications

1. Introduction

On 2 September 1957 in the city of Shkodra rose Higher Pedagogical Institute. He was a two-year term until 1970. Then became a three year old and in 1981-91 became a four-year term. On 28 May 1991 this university was considered University "Luigj Gurakuqi". This university is one of the best known and tradition in Albania. Currently there continue higher studies students from around the country (mainly in the north), but also from Montenegro, Kosovo and Macedonia. Staff of the University of Shkodra has established cooperative relationships with Italian, German and Austrian universities.

Nowadays exist several databases and search engines useful in an academic setting for finding and accessing articles in academic journals, archives, or other collections of scientific articles. Some details on these eight citation databases are below described Falagas (2007), Zlati et al.(2009), Good et al.(2009).

Scopus is the largest abstract and citation database of research literature and quality web sources with smart tools to track, analyze and visualize research Burnham (2006), Podlubny et al. (2005). It's designed to find the information scientists need. Scopus, launched in November 2004, is the largest abstract and citation database of peer-reviewed research literature. With over 47 million records, 19,000 titles from more than 5,000 international publishers, SciVerse Scopus offers researchers a quick, easy and comprehensive resource to support their research needs in the scientific, technical, medical and social sciences fields and, more recently, also in the arts and humanities.

ScienceDirect is one of the largest online collections of published scientific research in the world. It is operated by the publisher Elsevier and contains nearly 10 million articles from over 2,500 journals and over 6,000 e-books, reference works, book series and handbooks issued by Elsevier. The articles are grouped in four main sections: Physical Sciences and Engineering, Life Sciences, Health Sciences, Social Sciences and Humanities.

Microsoft Academic Search is a free academic search engine developed by Microsoft Research. It covers more than 38 million publications and over 19 million authors across a variety of domains with updates added each week. Microsoft Academic Search covers more than 27.1 million publications and 16.1 million authors as of June 2011, with weekly updates since November 2009. On an author's profile page, you can get detailed information about the author such as his or her institution, publications, research interests, and homepage. You can also view the author's historical publication and citation frequency.

Scirus is the most comprehensive scientific research tool on the web. With over 460 million scientific items indexed at last count, it allows researchers to search for not only journal content but also scientists' homepages, courseware, pre-print server material, patents and institutional repository and website information. It also sends its scientific search results to Scopus, an abstract and citation database covering scientific research output globally. Scirus is owned and operated by Elsevier.

Publish or Perish is a software program that retrieves and analyzes academic citations. It uses Google Scholar to obtain the raw citations, then analyzes these and presents the following statistics:

Total number of papers, total number of citations, average number of citations per paper, average number of citations per author, average number of papers per author, average number of citations per year, Hirsch's h-index and related parameters, Egghe's

g-index, the contemporary h-index, the age-weighted citation rate, two variations of individual h-indices, an analysis of the number of authors per paper Batista et al. (2006), Cronin et al. (2006).

Publish or Perish is designed to empower individual academics to present their case for research impact to its best advantage. It would be used also for academic staff evaluation purposes. In addition to the various these simple statistics, Publish or Perish calculates the several citation metrics Hammond et al. (2010).

WorldCat is the world's largest network of library content and services. WorldCat libraries are dedicated to providing access to their resources on the Web, where most people start their search for information. WorldCat itemizes the collections of 72,000 libraries in 170 countries. It is built and maintained collectively by the participating libraries. The catalog was created in 1971 and, as of April 2012, it contains more than 264 million different records pointing to over 1.83 billion physical and digital assets in more than 470 languages. It is the world's largest bibliographic database.

WorldWideScience is a global science gateway comprised of national and international scientific databases and portals. The concept of a global gateway to national science information sources was first described by Dr. Walter Warnick at the ICSTI annual meeting in Washington, DC, in 2006. Multilingual WorldWideScience provides real-time searching and translation of globally-dispersed multilingual scientific literature Hull et al. (2008). Through a multilateral partnership, WorldWideScience enables anyone with internet access to launch a single-query search of national scientific databases and portals in more than 70 countries.

SpringerLink is one of the world's leading online information services for scientific, technical, and medical (STM) books and journals. Today, the collection spans the universe of research of more than 1,250 peer reviewed journals plus a constantly expanding library of eReference Works, eBooks and an Online Archive Collection. SpringerLink is preferred because it is simple to use, scalable and flexible and helps effectively serve its users.

2. Material and methods

In this paper the research structure is based on the usage of the data of the databases and search engines specialized in the evaluation of academic performance of individual authors and institutions. Our investigation is focused on eight principal datasets, which take account the scientific papers on a wide range of research; from natural and social sciences, computer, medical, economics, life sciences, economics and medical sciences.

The evaluation consists until 31 Aug 2012.

The presentation of the results is done through tables and graphics, which indicate the number of peer review publications and their citations, for separate departments, faculties and the academic staff of the University of Shkodra "Luigj Gurakuqi".

Finally we have selected the most citable papers, published by the academic staff of the University of Shkodra.

3. Results

The overall results of our research are summarized into several tables and graphics. The total number of documents and the number of documents per person of each faculty cited in all investigated databases is presented in tables 1-2. The same

statistics for each department are presented in tables 3-4. Figures 1-3 present graphically percentile appearances on all databases and the total publications, for each faculty, department and individual staff.

Table 1. Number of published documents (faculties)

Faculties	Scopus	ScienceDirect	MicrosoftAcademicSearch	Scirus	Harzing	WorldCat	WorldWideScience	SpringerLink
Natural Sci.	15	1	8	12	110	20	19	1
Social Sci.	0	0	0	0	89	68	0	0
Economics	1	0	0	0	31	0	0	0
Educational Sci.	2	0	1	0	17	5	2	0
Foreign Lang.	0	0	0	0	8	6	0	0
Law	0	0	0	0	3	0	0	0

Table 2. Published documents per person (faculties)

Faculties	Scopus	ScienceDirect	MicrosoftAcademicSearch	Scirus	Harzing	WorldCat	WorldWideScience	SpringerLink
Natural Sci.	0.3	0.1	0.2	0.2	2.2	0.4	0.4	0.1
Social Sci.	0.0	0.0	0.0	0.0	1.8	1.4	0.0	0.0
Economics	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Educational Sci.	0.1	0.0	0.0	0.0	0.5	0.2	0.1	0.0
Foreign Lang.	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0
Law	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0

Table 3. Number of published documents (departments)

Departments	Scopus	ScienceDirect	MicrosoftAcademicSearch	Scirus	Harzing	WorldCat	WorldWideScience	SpringerLink
Biol.-Chem.	9	0	7	6	81	11	10	1
Linguistic	0	0	0	0	34	27	0	0
Physics	6	1	1	6	25	9	9	0

Literature	0	0	0	0	17	27	0	0
History	0	0	0	0	24	10	0	0
Geography	0	0	0	0	12	4	0	0
Tourism	1	0	0	0	15	0	0	0
Psychology	2	0	1	0	5	5	2	0
Eng. Am.Stud.	0	0	0	0	8	6	0	0
Finance-Acc.	0	0	0	0	11	0	0	0
Business-Adm.	0	0	0	0	5	0	0	0
Nursery	0	0	0	0	4	0	0	0
Mathematics	0	0	0	0	3	0	0	0
Jurisprudence	0	0	0	0	3	0	0	0

Table 4. Published documents per person (departments)

Departments	Scopus	ScienceDirect	Microsoft Academic Search	Scirus	Harzing	WorldCat	WorldWideScience	SpringerLink
Biol.-Chem.	0.6	0.0	0.5	0.4	5.4	0.7	0.7	0.1
Linguistic	0.0	0.0	0.0	0.0	2.8	2.3	0.0	0.0
Physics	0.6	0.1	0.1	0.5	2.3	0.8	0.8	0.0
Literature	0.0	0.0	0.0	0.0	1.1	1.8	0.0	0.0
History	0.0	0.0	0.0	0.0	2	0.8	0.0	0.0
Geography	0.0	0.0	0.0	0.0	1.3	0.4	0.0	0.0
Tourism	0.1	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Psychology	0.2	0.0	0.1	0.0	0.5	0.5	0.2	0.0
Eng. Am.Stud.	0.0	0.0	0.0	0.0	0.8	0.7	0.0	0.0
Finance-Acc.	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Business-Adm.	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Nursery	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Mathematics	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Jurisprudence	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0

In figure 1 the number of cited documents of each faculty of the University of Shkodra (average percentile and total publications) is presented.

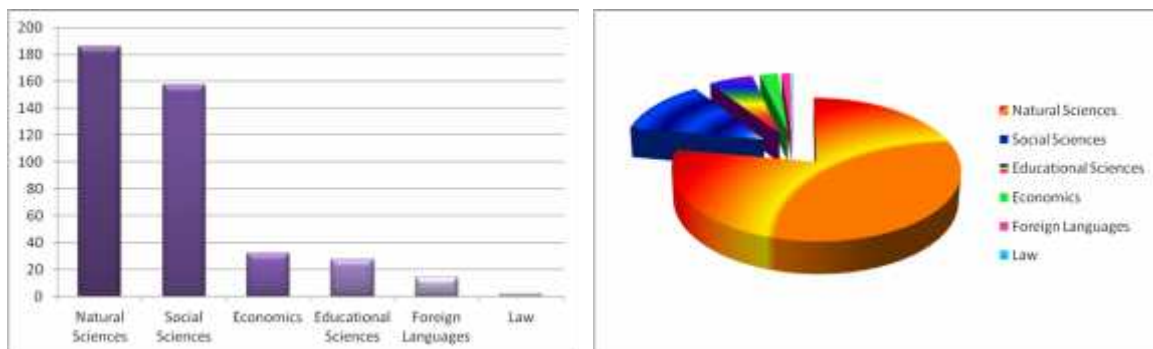


Figure 1. Percentile and total number publications for each faculty

In figure2 the number of cited documents of each department of the University of Shkodra (average percentile and total publications) is presented.

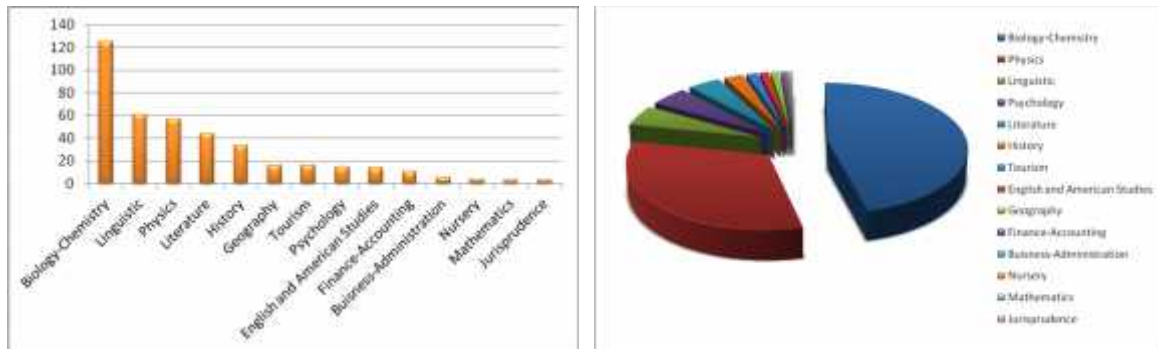


Figure 2. Percentile and total number publications for each department

Percentiles which have been expressed by figures 1-3 are the average values of percentile publications for each database. Vertical axes of the left figures (fig.1-3) express the averaged percentile citation on all databases, while the right figures present the sum of number citation on all databases.

4. Discussions

As it is clearly seen from the tables 1-4 and figure 1-2, all the faculties of University of Shkodra are engaged on peer review publications. Beside of this about 78% of all departments have at least one publication cited in these databases. Meanwhile this paper there do not list all authors which their papers are cited in these databases. We have presented the most cited authors in our university, although the full list of these authors is relatively large.

Looking inside these analyses, the most distinguished faculties and departments of our university can be evidenced.

University of Shkodra has six faculties. But the Faculties of Natural Sciences and Social Sciences are the most distinguished. These two faculties account on about 81.9% of total publications of the university. Despite of this, Faculty of Natural Sciences is clearly the most successful faculty in the field of scientific publications (44.4% of total publications).

Meanwhile the departments of Biology-Chemistry, Physics, Linguistic and Literature are the most distinguished. These four departments account on about 78.7% of total publications of the university. Among these, only the Department of Biology-Chemistry accounts for 30.6% of total publications.

Because several faculties as well as their departments have different number of academic staff, it may be very interesting if we present also their performances on publications/person. Tables 2 and 4 show that the faculties of Natural and Social Sciences have about 0.5 and 0.4 publications/person respectively. This coefficient for other faculties is below 0.2.

Meanwhile the values of this coefficient for the departments of Biology-Chemistry, Physics and Linguistics are 1.1, 0.7 and 0.6 respectively.

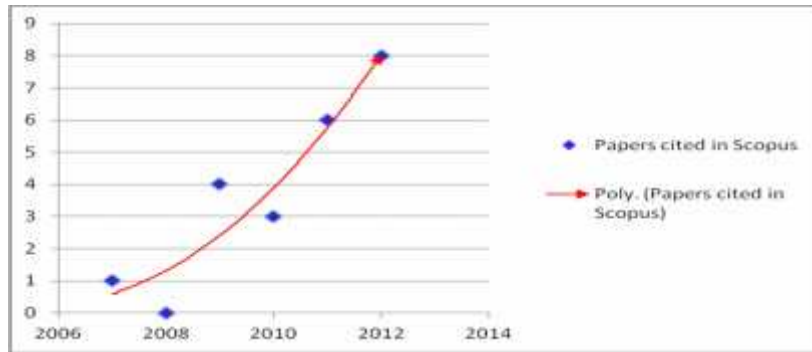


Figure 3. Publication trend cited in SCOPUS during the last years

It must emphasize the progression on peer review publications of our academic staff during the last years. Figure 3 shows this fact by presenting the progress in number citations in SCOPUS database during the last four years.

Speaking in terms of individual articles, there are published many highly cited papers (especially in impact factor journals) by the staff of the university: Neziri et al. (2004), Dhora and Welter-Schultes (1996), Rakaj et al. (2000), Topalli et al. (2001), Gjuraj (2000), Osmani (1999), Ulqini (1991), Vila and Mandija (2009).

If we make some comparisons to other Albanian Universities, we can see that University of Shkodra “Luigj Gurakuqi” is one of the best. In the world academic ranking list, University of Shkodra is in the 8110s place, (according 4th International Colleges & Universities). It is in front of the universities of Vlora, Gjirokastra and Korça, but it is behind the universities of Tirana, Elbasan and Durres.

Some statistics may help discovering the real performance of academic staff in the University of Shkodra. As about the academic staff, we have selected ten most cited authors (full time and ex-full time) on all the databases (figure 4).

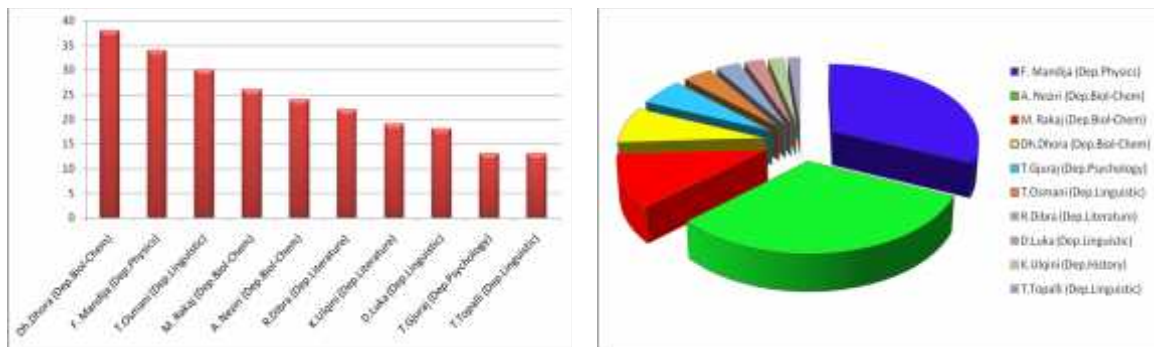


Figure 4. Percentile and total number publications for the academic staff

Let us compare the academic performance of three groups of pedagogues/researchers, based on Scopus database:

1. selected pedagogues (4) Mandija, Neziri, Dhora and Rakaj
2. entire directors of University (29)
3. remaining staff (161)

Number of publications of each of these groups are presented in table 3.

Table 3. Publications by three groups (Scopus)

	Publications	Publications/person
Group I	13	3.25
Group II	2	0.07
Group III	4	0.02

As we see from table 3, only 4 authors publish over 68% of all publications of Shkodra University cited by Scopus. Not more than 95% of all the staff have not any publication cited in this database. No one from the Rectorate staff (0%) has any publication in Scopus. Two of six deans of the faculties (33%) have one publication in Scopus. Only one of 19 heads of the departments (5%) has one publication in Scopus. Only 6 authors have more than one publications cited in Scopus.

5. Conclusions

In this article is presented a picture of academic performance of the University of Shkodra "Luigj Gurakuqi" based on the peer review publications. From the search results, it can be seen that almost all the staff of the university is engaged in scientific publications.

The most distinguished faculties of the university are Faculty of Natural Sciences and Faculty of Social Sciences. Meanwhile the most distinguished departments are Dep.Biology-Chemistry, Dep.Physics and Dep.Linguistics. Also a strong progression on yearly publication of the staff of the university during the last 4 years can be evidenced.

An important thing that is evidenced by this analysis is the fact that more than the half of all publications cited by Scopus are published by only four authors.

Thus despite of the excellent achievements in the university, nowadays challenges and quality development of higher education require a better performance on the scientific publications, especially the impact factor journals.

References

- Batista, P.D.; Campiteli, M.G.; Konouchi, O.; Martinez, A.S. (2006) Is it possible to compare researchers with different scientific interests? *Scientometrics*, vol. 68, no. 1, pp. 179-189.
- Burnham, J. (2006). "Scopus database, A review". *Biomedical Digital Libraries* 3
- Cronin, B.; Meho, L. (2006) Using the h-Index to Rank Influential Information Scientists, *Journal of the American Association for Information Science and Technology*, vol. 57, no. 9, pp. 1275-1278.
- Dhora, D. and F. W. Welter-Schultes. (1996). List of species and atlas of the non-marine molluscs of Albania. *Schriften zur Malakozoologie* 9: 90-197, pls. 5-16.
- Falagas, M. E.; Pitsouni, E. I.; Malietzis, G. A.; Pappas, G. (2007). "Comparison of PubMed, Scopus, Web of Science, and Google Scholar: Strengths and weaknesses". *The FASEB Journal* 22 (2).
- Fishta Gj. Çobani T. Topalli T. (2001) *Lahuta e malcis*, Alb-Ass, 149p.
- Gjuraj T. (2000) A Stable Ecumenical Model? How Religion Might Become a Political Issue in Albania, Academic journal article from *East European Quarterly*, Vol. 34, No. 1.
- Hammond, T., et al. (2010) *Social Bookmarking Tools (I) A General Review*. D-Lib.

- Hull, D. Pettifer, S. Kell D. (2008). McEntyre, Johanna. ed. "Defrozing the digital library: bibliographic tools for the next generation web". PLoS computational biology 4 (10).
- Good, B. M. Tennis, J. T. Wilkinson, M. D. (2009). "Social tagging in the life sciences: Characterizing a new metadata resource for bioinformatics". BMC Bioinformatics 10: 313.
- Osmani T. (1999) *Udha e shkronjave shqipe: Histori e alfabetit, Shtepia Botuese Idromeno, Shkoder.*
- Podlubny, I. (2005) Comparison of scientific impact expressed by the number of citations in different fields of science, *Scientometrics*, vol. 64, no. 1, pp. 95-99.
- Rakaj, M., Hindak, F. & Hindakova, A., (2000) Phytoplankton species diversity of the Albanian part of Lake Shkodra in 1998-1999. 329.
- Rastall AC, Neziri A, Vukovic Z, Jung C, Mijovic S, Hollert H, Nikcevic S, Erdinger L. (2004) The identification of readily bioavailable pollutants in Lake Shkodra/Skadar using semipermeable membrane devices (SPMDs), bioassays and chemical analysis. *Environ Sci Pollut Res Int.* ;11(4):240-53.
- Urqini K. (1991) *Bajraku ne organizimin e vjeter shoqror: Fundi i shek.XVII deri me 1912.* 183 p.
- Vila F., Mandija F., (2009) The altitude profile of atmospheric ion concentration and the determination of recombination and attachment coefficients in suburbs areas, *Journal of Electrostatics*, Vol. 67, Issue 2+3, pp. 492-495.
- Zlati , V. Ghoshal, G. Caldarelli, G. (2009). Hypergraph topological quantities for tagged social networks. *Physical review. E, Statistical, nonlinear, and soft matter physics* 80 (3 Pt 2).
- Harold D. (2006). *Google Advertising Tools: Cashing in with AdSense, AdWords, and the Google APIs.* O'Reilly Media. p. 12.
- Alistair, C. Seán P. (2009). *Complete Web Monitoring: Watching Your Visitors, Performance, Communities, and Competitors.* O'Reilly Media. p. 38.