University Rankings and the Problem of Competitiveness of National Universities of Post-Soviet Countries in Global Educational Space: The Case of Ukraine

Sergiy Kurbatov[*]

Abstract

University rankings during last decade became extremely popular and "fashionable" topic for general discussions and also for academic researches. Our idea is to look at ranking as a certain innovative technology, which enforce dramatic changes of university education in the context of globalization and increase the level of its competitiveness. The creation of global educational space, started in the last decades of the 20th century, provoked numerous challenges for national universities as the centre of producing of the certain type of cultural identity (Readings, 1997). In situation of these changes, rankings become a kind of condensed guidelines for university managers how to reform the university in context of creation of World-Class University in the framework of main tendencies of academic development of our time. International rankings give us a simplified picture of a World Class University. But without this simple picture it is impossible to identify the main dimensions for reforming the system of higher education, though it is a simple matter to imitate such reforms. The "language" of international ranking is now a kind of academic Esperanto, which gives to each University an opportunity to be a part of the modern globalized University system and the certain understanding how to be competitive in the framework of this system -- and in this paper we made an attempt to analyse this

[*] Sergiy Kurbatov: Researcher, Centre for Russian and Eurasian Studies, University of Uppsala, Sweden; and Institute of Higher Education, National Academy of Pedagogical Sciences of Ukraine, Ukraine; E-mail: sergiy.kurbatov@gmail.com

process based on Ukrainian experience and the relevant data. We argued that the factor of ranking fostering educational reforms in Ukraine and enforces policy-makers in the area of university education to be more sensitive to contemporary tendencies in global educational space.

Keyword: University Ranking; World-Class University; Indicator; Ukrainian University Ranking

1. Introduction

University rankings during last decade became extremely popular and "fashionable" topic for general discussions and also for academic researches. As Ellen Hazelkorn mentioned in her recently published book, "There is a growing obsession with university rankings around the world. What started as an academic exercise in the early 20th century in the U.S. became a commercial 'information' service for students in the 1980s and the progenitor of a 'reputation race' with geo-political implications today (Hazelkorn, 2011)." At the same time there is strong critique of the idea of ranking and the existing methodology of evaluation of the quality of university performance. "Many of institutional leaders set rankings as their benchmark in their vision or master plan for the university. Nevertheless, academics are quite skeptical of rankings because they believe that they mislead higher education institutions as well as have enormous methodological limitations (Shin, Toutkoushian, & Teichler, 2011)."

"Global university rankings have cemented the notion of a world university market arranged in a single 'league table' for comparative purposes and have given a powerful impetus to intranational and international competitive pressure in the sector (Marginson & van der Wende, 2007)." So, university rankings forced educational institutions to be more relevant to contemporary reality, in which the factor of adequate representation in the informational sphere is becoming more and more important. A kind of open competition, which is provided through rankings, makes University life more attractive for public and destroys the effect of "Ivory Tower" with the relevant elitism. The high level of technological and technical development of human civilization presents numerous challenges to the system of higher education and to each University in particular. How to generalize these numerous challenges? How to understand the role and place of University education in contemporary society, which is often called "knowledge society" or "learning society" (Välimaa & Hoffman, 2008)? To some extent, University is the central economic and social institution of this new type of society and this new mission enforces radical transformation of its main forms, structures and functions. In this context we could observe international university rankings as a kind of innovative technology for transformation of education in the 21st century.

The globalized world needs new model of the University, and the idea of "World Class University" is one response to these challenges. "In the past decade, the term "world-class university" has become a catch phrase, not simply for improving the quality of learning and research in tertiary education but also, more important, for developing the capacity to compete in the global tertiary education marketplace through the acquisition, adaptation, and creation of advanced knowledge (Salmi, 2009)." The classical quality criteria of the World Class University, which evaluate teaching and research potential with the addition of social, business, and other innovative dimensions of University activities, must also be taken into consideration for objective evaluation of adequate University performance. The "Third Mission of the University (Montesinos, Carot, Martinez, & Mora, 2008)" could be an excellent start point for the discussion about further modifications of classical "idea of University (Pelikan, 1992)." University rankings give to national universities a kind of guidance how to be competitive at global academic market, how to transform their activities and functions (sometimes at institutional level) in order to be relevant to current economic and social demands. That is why it is extremely important to introduce the decision-makers in the area of University education to the fundamental principles of creating rankings and their main indicators.

When we compare different things we need objective criteria, which give us the opportunity to construct a hierarchical order. It is impossible to compare incompatible, so it is important to have certain level of consensus among academic community regarding important dimensions of current university activities. If we have some specific criteria but remain in ignorance of other dimensions of University activity, no one can achieve an objective picture. We have a situation of "the distillation of complex reality into a limited set of attributes to determine an institution's placement" or "simplification (McCormick, 2008)." But any theoretical construction is a kind of simplification of multi-dimensional reality. In case of Universities we think it is impossible to cover even the most important dimensions of its activities in a single specific ranking system. However, as the most influential rankings of world Universities (Academic Ranking of World Universities by the Institute of Higher Education, Shanghai Jiao Tong University, The Times Higher Education World University Rankings, QS World University Rankings, Ranking Web of World Universities

and others) show, we can formulate criteria for evaluation of teaching and research activities. These criteria (which could be flexible) can then serve as a kind of guidelines for reforming national systems of higher education. Such a reform is especially important in countries with transitional political and economic system, like Ukraine. We believe that rankings of world Universities and their criteria can contribute to clarifying the contemporary vision of the University for Ukrainian University Management, policy makers and other people, who influence the educational politics here.

Our idea is to look at ranking as a certain innovative technology, which enforce dramatic changes of university education in the context of globalization. The creation of global educational space, started in the last decades of the 20th century, provoked numerous challenges for national universities as the centre of producing of the certain type of cultural identity (Readings, 1997). In situation of these changes, rankings become a kind of condensed guidelines for university managers how to reform the university in context of creation of World-Class University.

2. University Rankings and Ukraine

2.1 Ukrainian System of University Education

Ukraine has a really developed system of University education. According to the date from State Statistic Service of Ukraine, in February, 2011 our country has 854 higher educational institutions of the 1-4 level of accreditation, with more than 2,491,000 students. The number of students in Ukrainian higher educational institutions increased 2.5 times since 1991, the year when Ukraine became independent state. The number of the higher educational institutions of the 3-4th levels of accreditation (which could be marked as universities according to Western system of education) during this period increased from 149 to 349. In 2010 543.7 thousands people graduated from higher educational institutions and this is four times more, than in 1991. The number of doctoral students during 1991-2010 increased three times.

Knowledge economy index (KEI) for Ukraine in 2009 was 6.00 and according to it this country has 51 position in the list of 145 countries (*KEI and KI indexes (KAM 2012)*, 2012). Global Competitiveness Report 2010-2011

ranked Ukraine as 56th with the score 3.9 according to quality of the educational system. According to tertiary education enrolment rate Ukraine is the 8th in the world. At the same time according to GDP (Gross domestic product) per capita in 2009 Ukraine with 2,542 USD was 96th in the world. General Global Competitiveness Index ranks Ukraine as 89th country in the world, so we could mention the system of Ukrainian University education as one of the most competitive in comparison with other components, which were evaluated in this index (Schwab, 2010). In 2011-2012 according to the General Competitiveness Index Ukraine improved its position and was 82nd country in the world, but according to quality of education system it performs worse and was 62nd with the score 3.82 (Schwab, 2011). According to tertiary education enrolment rate Ukraine become this 7th country in the world. According to Human Development Index in 2010 Ukraine was 69th country in the world (United Nations Development Programme, 2010).

There were no one Ukrainian university in Academic Ranking of World Universities by the Institute of Higher Education, Shanghai Jiao Tong University, The Times Higher Education World University Rankings and QS World University Rankings in 2010. In 2011 two Ukrainian universities appear under the number 601 +: National Technical University of Ukraine "Kyiv Polytechnic Institute" and Donetsk National University (*QS world university rankings*, 2011). In Ranking Web of World Universities among the top 12,000 world universities in July, 2012 were 321 137 Ukrainian ones (it is interesting, that in July, 2011 there were only 137 Ukrainian universities in this ranking!) (Ranking Web of Universities, 2012). The best among them were National technical University of Ukraine Kiev Polytechnic Institute (713, in 2011 this university has 1,325 position), National Taras Shevchenko University of Kyiv (973, in 2011 – 1,321 position), Donetsk National Technical University (982), Kharkov National University VN Karazin (1,469, in 2011 – 1,395 position) and Lviv Polytechnic National University (1,703, in 2011 – 1,738 position). The five top Ukrainian universities on April, 6, 2012 according to SciVerse Scopus bibliographic database (*Ranking of ukrainian universities according to scopus*, 2012) could be observed from the Table 1:

In general, we need to mention that Ukraine have a large University infrastructure, which at the same time could not perform competitively at global

Table 1. TOP Ukrainian Universities according to SciVerse Scopus
Bibliographic Database

N	University	Number of publications	Number of citations	h-index
1.	Taras Shevchenko National University of Kyiv	9,227	27,567	54
2.	VN Karazin Kharkiv National University	5,615	19,270	44
3.	Ivan Franko National University of Lviv	3,910	13,607	35
4.	Odessa National University named after I.I. Mechnikov	2,105	6,497	34
5.	National technical University of Ukraine "Kyiv Polytechnic Institute"	3,520	5,619	31

educational market. This is the result of low level of financial support of R&D (Research & development) activities at University level -- total state budget for R&D activities in Ukraine in 2010 was 465.3 millions USD. Also, the University managers mostly represent the old generation of academic people and are often in captivity of prejudices and stereotypes of the soviet times, for example regarding international cooperation. International University rankings could be a relevant tool for explanation for Ukrainian decision-makers in the area of University education what are contemporary world-class universities, how they perform and functioning.

2.2 The Main University Rankings in Ukraine and Their Results

Although the process of creation of national University rankings was started in 1983 in the U.S.A., the first Ukrainian University ranking was established in 2000, when the project "Sophia Kyivska" was established by the International Academy of Personal Management, the Institute of Higher Education of Academy of Pedagogical Sciences of Ukraine, the Ukrainian Institute of Social Researches and other academic institutions. It was based mostly on two types of survey: among experts in academic area and among potential students. Thus, this ranking evaluates mostly the level of attractiveness of University among different audiences and had subjective character.

In 2006 the process of ranking of Ukrainian Universities was started by the Ministry of Education and Science of Ukraine. This ranking is based on six criteria: teaching potential; international activity; the quality of education and the level of research activities among students; material background of Universities;

and scientific research among the faculty. The data for this ranking come from materials for the accreditation of University by the Ministry, so it is calculated entirely on the basis of formal criteria.

The idea of ranking also became attractive for our mass media. Since 2007 the Ukrainian journal "Money" has published its own ranking, based on a survey of the most prestigious employers, who evaluate the graduates of different Ukrainian Universities. In 2007 another popular Ukrainian journal "Korrespondent" started its own ranking, based on the competition during the admission process (number of applicants per place) and the opinion of employers about quality of knowledge among the graduates. Later this ranking began to base on the opinion survey of the largest Ukrainian employers. Ranking of Ukrainian weekly "Comments," which also based on the opinion survey of the largest Ukrainian employers, was established in 2010.

Two rankings of Ukrainian Universities, based mostly on internationally recognized standards and approaches, are "TOP 200 Ukraine," which was developed by the Department of UNESCO (United Nations Educational, Scientific and Cultural Organization) -- "High Technical Education, system analyses and informatics" of National University "KPI" and the Ukrainian weekly "Mirror of the Week" in 2007, and "COMPASS," which is run and financed by the SCM Group and Foundation "Development of Ukraine" since 2008.

"TOP 200 Ukraine" in 2011 was calculated according to evaluation of 21 indicators (80%) and opinion survey among educational experts (20%). Its main formula: Integrated Index (II) = Index of Quality of Teaching and Research Potential of Faculty (IQTRP -- 10 indicators) + Index of Quality of Teaching (ICT -- 4 indicators) + Index of International Activities (IIA -- 7 indicators). The ranking "TOP 200 Ukraine" was criticized by Ukrainian researchers (Kurbatov, 2007) for its purely formal approaches (for example, evaluation of international activities mostly through membership in different associations) and for ignoring some important measurable indicators (for example, number of publications and citations of faculty members). The ten best universities in 2011-2012 according to the University ranking "TOP 200 Ukraine" are presented in Table 2:

As we see, here we have mostly universities from the capital of Ukraine, Kyiv (6 positions, including 2 top), Kharkiv (2 positions) and Dnipropetrovsk

Table 2. The Best Universities according to TOP-200 Ukraine University Ranking

N	University	Integrated Index
1.	National technical University of Ukraine "Kyiv Polytechnic Institute"	71, 56
2.	Taras Shevchenko National University of Kyiv	70, 81
3.	VN Karazin Kharkiv National University	50, 589
4.	National University of "Kyiv-Mohyla Academy"	42, 07
5.	Bogomolets National Medical University	42, 019
6.	National University "Kharkiv Polytechnical Institute"	41, 58
7.	National Mining University	37, 56
8.	National University of Life and Environmental Sciences of Ukraine	37, 11
9.	Dnipropetrovsk National University	36, 53
10.	Kyiv National Economic University named after Vadym Getman	33, 54

(2 positions). Also, we could mark the absence in the first top of this ranking Ivan Franko National University of Lviv, which is among the top Ukrainian universities according to Ranking Web of World Universities and SciVerse Scopus bibliographic database.

The University ranking "COMPASS" is based on the methodology developed by Kiev International Institute of Sociology, which could be identify as opinion survey among few target groups: University graduates, employers and experts (Ukrainian Universities Ranking "Compass," 2012). This ranking has four main criteria: (1) the level of satisfaction of education and its implementation in professional life from University graduates (weight coefficient 0,10); (2) the perception of quality of Ukrainian University education by employers (0,31); (3) the perception of quality of Ukrainian University education by the experts (0,29) and (4) evaluation of the level of cooperation between universities and labor market (0,30). For example, 1,182 graduates from 233 Ukrainian universities and representatives of 964 companies participated in survey. The top Ukrainian universities in 2012 according to ranking "COMPASS" are presented in Table 3:

Again, five among six top Ukrainian universities according to ranking "COMPASS" are located in Kyiv, only one university from Lviv is presented. Kharkov National University VN Karazin, which are among the top tree Ukrainian universities according to Ranking Web of World Universities and SciVerse Scopus bibliographic database is beyond the top.

Table 3. The Best Ukrainian Universities according to "COMPASS" Ranking

N	University	Score
1.	National Technical University of Ukraine "Kyiv Polytechnic Institute"	90
2.	Taras Shevchenko National University of Kyiv	83
3.	National University of "Kyiv-Mohyla Academy"	43
3.	Kyiv National Economic University named after Vadym Getman	42
4.	Lviv Polytechnic National University	36
5.	Kyiv National University for Construction and Architecture	30

2.3 Rankings as a Tool for Reformation of Universities

For creation of theoretical and methodological background for the adequate ranking of Ukrainian university a special concept was developed in 2009 at the Institute of Higher Education, National Academy of Pedagogical Sciences of Ukraine (Kurbatov, 2009). According to this concept the optimal for Ukrainian system of University education ranking could include three main criteria: (1) quality of teaching; (2) quality of research activities and (3) perception of University among the main target audiences. *The quality of teaching* could be calculated according to the following indicators: (1) quality of faculty; (2) ratio of students and teachers; (3) the level of internationalization among the faculty and the students and (4) the level of informative and technological support of teaching processes. *The quality of research activities* includes: (1) number of patents by faculty and students; (2) number of publications in leading academic journals; (3) index of citing of faculty and (4) amount of grants and other financial resources from external sources per one faculty member. *The perception of University among the main target audiences* could be based on: (1) the evaluation of the level of competitiveness of graduates at the labor market by employers; (2) evaluation of the quality of teaching and research activities by students and graduates and (3) evaluation of the University by expert in the area of education.

These three dimensions of activities cover the most important components of the University mission: teaching, research and the visible presence of University in public sphere as an active and influential actor (the 3rd mission of the University). So, with the proposed indicators we try to fix important aspects of all three dimensions. The indicators were selected from different rankings for the purpose of creation more objective, multi-dimensional ranking system.

On the other hand they could give a clear vision of the ways of reformation and improving of the situation for managers and other policy-makers in the area of University education. This is especially important for current Ukrainian situation, because join the TOP of the leading international University ranking for the best Ukrainian universities was marked in 2010 as an indicator of successful realization of the Program of economic reforms for 2010-2014 by current President of Ukraine Viktor Yanukovych "Prosperous Society, Competitive Economics and Effective State." So, the state enforces Ukrainian universities to be much more sensitive to University ranking's issue and, as a result, to be more competitive at global educational market.

2.4 Perception of University Ranking among Alumni and Employers

In the framework of the project of University ranking "Compass 2011," which was carried out by Kiev International Institute of Sociology, a pilot study regarding attitude toward concept of world-class university and university rankings was conducted.[1] The fieldwork took place in February-March 2011. Within this project representatives of 964 companies and 1,182 university graduates were surveyed. Face-to-face and telephone interviews were the methods of gathering information in this project.

Regarding the evaluation the main components of the mission of contemporary university among the employers we have the following picture (Figure 1).

How important are the following components of the mission of contemporary university?
(employers survey)

■ Very important ■ Important ■ Difficult to answer ■ Not important ■ Not important at all

Teaching	53%	39%	6%	1%
Research	42%	41%	12%	3%
Social service (the 3rd mission)	25%	35%	27%	8%

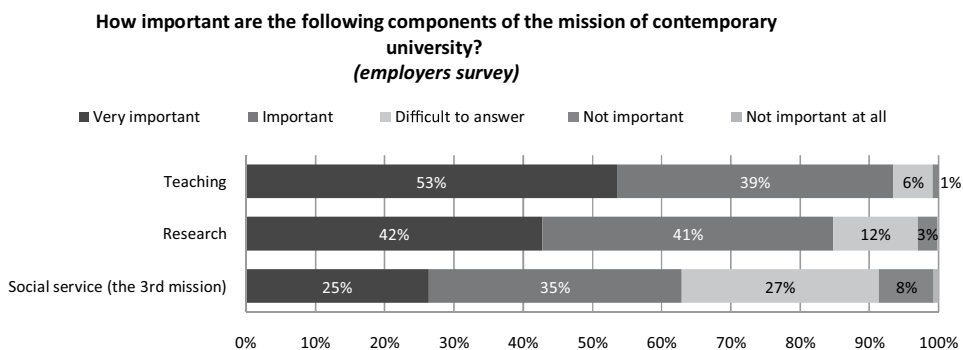0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Figure 1. Evaluation of the Components of University Mission by Ukrainian Employers.

---

[1] We express our thanks to Kiev International Institute of Sociology and Andriy Kashyn for these data.

As we could observed from this result, the majority of employers (53%) evaluate teaching as the most important mission and only one fourth of them (25%) identified social service as "very important." We could say that traditional vision of university mission dominates among this group. The situation changes, when we analyses the result of university graduates survey (Figure 2).

Slight majority of graduates (58%) evaluated research mission as more important than teaching (57%). Also, more than one third of them (34%) indentified the mission of social service as the very important one. So, the opinion of Ukrainian graduates is closer to contemporary vision of distribution of the main components of university mission.

The effectiveness of these components of university according to the opinion of our respondents reflects the priority of teaching over research and social service in both groups (Figures 3 and 4).

The list of the most competitive Ukrainian universities according to opinion of employers and alumni would include the following institutions (Table 4):

As we see, National Technical University of Ukraine "KPI," which has the first position in TOP-200 and COMPASS university rankings is only the third according to the result of this survey.

The majority of our respondents think that it is important for Ukrainian universities to be in the international university rankings (Figures 5 and 6):

As to the main strategies for building of the World-Class University (Salmi, 2009) we have the following results (Figure 7):

Ukrainian employers and alumni have the following attitude toward the main indicators of ranking of the universities (Figure 8):

3. Conclusions

We see that international and national University rankings play important role in shaping of contemporary educational policies. Through their indicators decision makers in the area of University education could create a kind of vision of the main processes and tendencies at global educational space.

Especially important University rankings are for countries in transition, like Ukraine, which try to reform their University system according to European and world's standards. So, the role of University rankings for such reformative

How important are the following components of the mission of contemporary university?
(university graduates survey)

■ Very important   ■ Important   ■ Difficult to answer   ■ Not important   ■ Not important at all

	Very important	Important	Difficult to answer	Not important	Not important at all
Teaching	57%	35%		5%	2%
Research	58%	34%		6%	1%1%
Social service (the 3rd mission)	34%	38%	19%	6%	1%
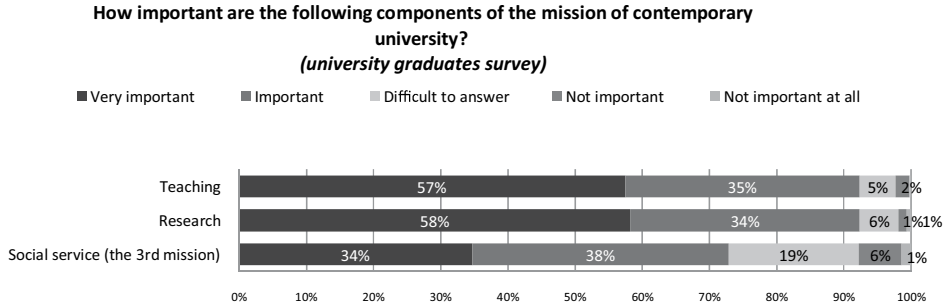
Figure 2. Evaluation of the Components of University Mission by Ukrainian Graduates.

How successful Ukrainian universities are in performing of …?
(emploeyrs survey; % to those, who answered)

■ Very successful   ■ Successful   ■ Difficult to answer, successful or not   ■ Unseccessful   ■ Unseccessful at all

	Very successful	Successful	Difficult to answer, successful or not	Unseccessful	Unseccessful at all
Teaching	42%	46%	10%	2%	
Research	37%	35%	20%	5%	1%
Social service (the 3rd mission)	23%	29%	30%	11%	1%

Figure 3. Evaluation of the Successfulness of Conducting the Main Components of University Mission among Ukrainian Employers.

How successful Ukrainian universities are in performing of …?
(university graduates survey; % to those, who answered)

■ Very successful   ■ Successful   ■ Difficult to answer, successful or not   ■ Unseccessful   ■ Unseccessful at all

	Very successful	Successful	Difficult to answer, successful or not	Unseccessful	Unseccessful at all
Teaching	40%	43%	13%	2%	1%
Research	37%	34%	19%	5%	1%
Social service (the 3rd mission)	30%	31%	26%	8%	2%

Figure 4. Evaluation of the Successfulness of Conducting the Main Components of University Mission among Ukrainian Graduates.

Table 4. The Best Ukrainian Universities according to Opinion Survey among Employers and Graduates
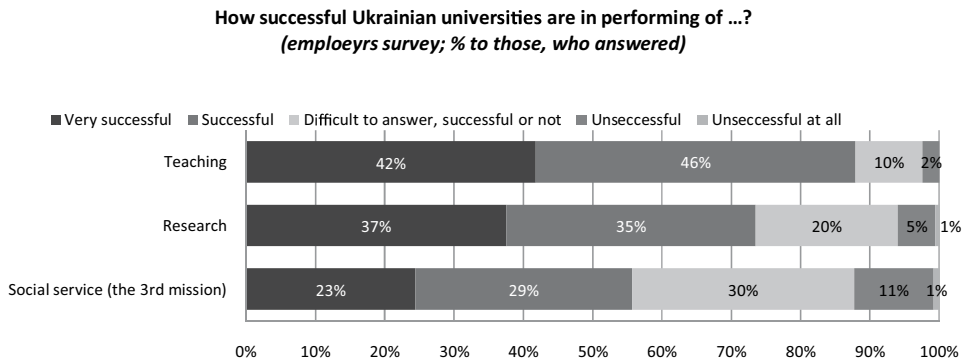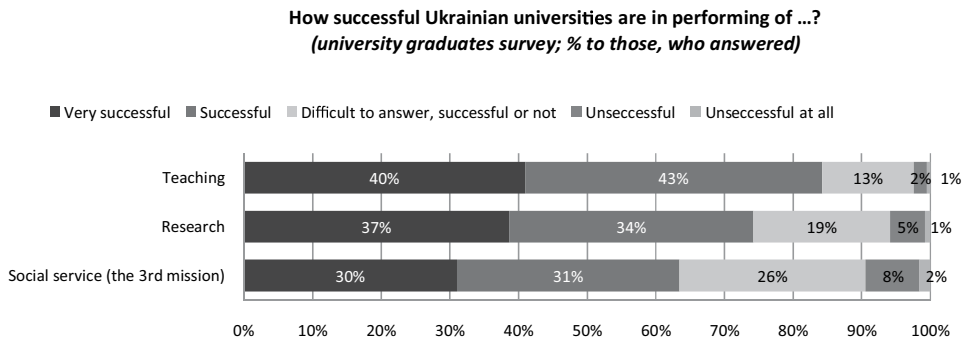
	University	City	Employers, %	Graduates, %
1	Kyiv Taras Shevchenko National University	Kyiv	19.2	20.5
2	National University "Kyiv-Mohila Academy"	Kyiv	13.8	15.9
3	National Technical University of Ukraine "KPI"	Kyiv	13.7	8.9
4	National Yaroslav Mudriy Law Academy of Ukraine	Kharkiv	4.3	4.7
5	Lviv National Polytechnic University	Lviv	6.1	1.6
6	Lviv Ivan Franko National University	Lviv	4.3	3.0
7	National Zhukovskiy Aeronautic University "Krarkiv Aviation Institute"	Kharkiv	2.3	2.0
8	Kyiv Vadim Getman National Economic University	Kyiv	2.5	1.7
9	National Aviation University	Kyiv	2.4	1.8
10	Odessa National Law Academy	Odessa	1.7	2.3
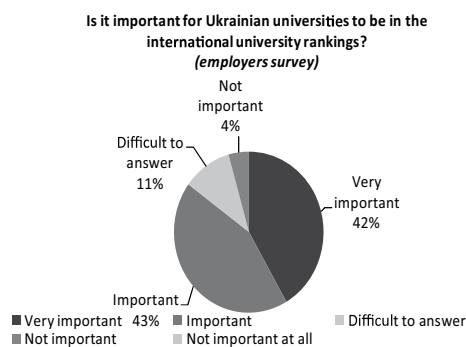
Figure 5. The Importance for Ukrainian Universities to Be Presented in International Rankings (Employers Survey).
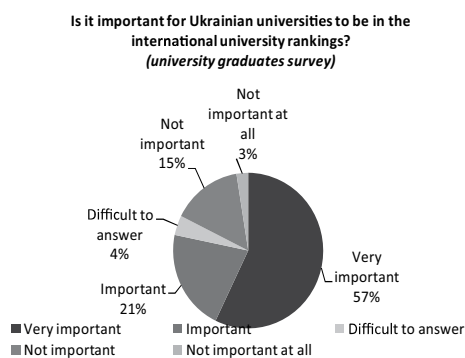
Figure 6. The Importance for Ukrainian Universities to Be Presented in International Rankings (Graduates Survey).

activities is important and crucial for successful development of this system in future. University rankings could serve a kind of guidelines for decision-makers in the area of education and, at the same time, innovative technology for progressive transformation of university education according to challenges and demands of the 21st century. They become a kind of simple algorithm for those, who want to understand how to be competitive at global educational space.

What would be the best strategy for establishing of the world class university in Ukraine?

Strategy	Employers	University graduates
Defining 20-30 best universities and giving them substantial support for effective modernization	55%	44%
Uniting universities and academic institutions in order to summarize their best structural units in a world class university	23%	29%
Creating a new world class university from a zero level	11%	16%
Difficult to answer	11%	11%

Figure 7. The Best Strategies for Establishing of World Class University according to Ukrainian Employers and Graduates.
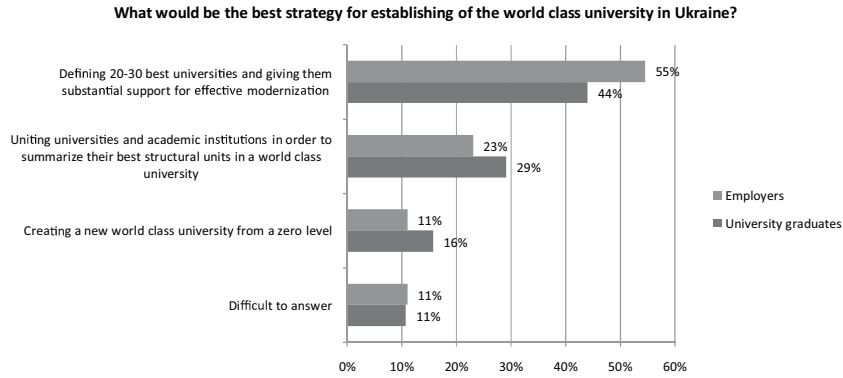
What indicators reflect the efficiency of a contemporary university and its competitiveness in the global educational space?

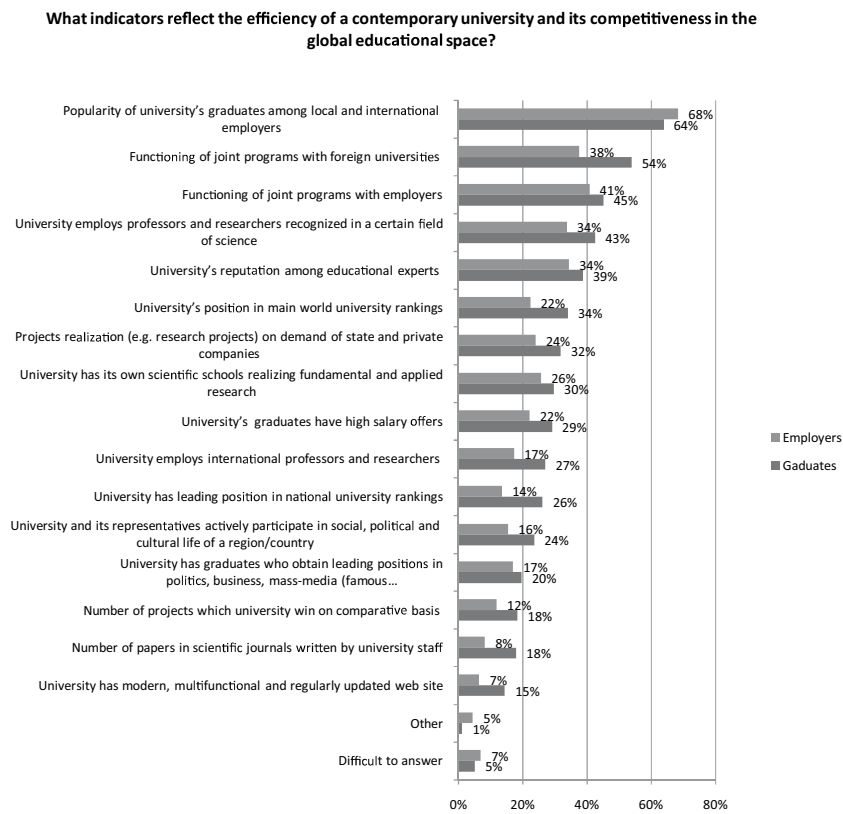| Indicator	Employers	Graduates
Popularity of university's graduates among local and international employers	68%	64%
Functioning of joint programs with foreign universities	38%	54%
Functioning of joint programs with employers	41%	45%
University employs professors and researchers recognized in a certain field of science	34%	43%
University's reputation among educational experts	34%	39%
University's position in main world university rankings	22%	34%
Projects realization (e.g. research projects) on demand of state and private companies	24%	32%
University has its own scientific schools realizing fundamental and applied research	26%	30%
University's graduates have high salary offers	22%	29%
University employs international professors and researchers	17%	27%
University has leading position in national university rankings	14%	26%
University and its representatives actively participate in social, political and cultural life of a region/country	16%	24%
University has graduates who obtain leading positions in politics, business, mass-media (famous…	17%	20%
Number of projects which university win on comparative basis	12%	18%
Number of papers in scientific journals written by university staff	8%	18%
University has modern, multifunctional and regularly updated web site	7%	15%
Other	5%	1%
Difficult to answer	7%	5%

Figure 8. The Importance of the Indicators of University Rankings in Reflecting Academic Efficiency and Competitiveness.

In particular Ukrainian case university rankings become driving tool for reformation of education according to the demands of global educational space and successfully legitimized themselves in public opinion. They also enforce the internationalization of higher educational institutions.

References

Hazelkorn, E. (2011). *Rankings and the reshaping of higher education: The battle for world-class excellence*. Hampshire, UK: Palgrave Macmillan.

KEI and KI indexes (KAM 2012). (2012). Retrieved from The World Bank website: http://info.worldbank.org/etools/kam2/kam_page5.asp

Kurbatov, S. (2007). *Real'nost' I zazerkal'e yniversitetskih reitingov*. Retrieved from http://www.zn.ua/3000/3300/56436/

Kurbatov, S. (2009). Pro formyvannya reitingiv v Ukraini. *Pedagogika ta Psihologiya*, *3*(64), 111-120.

Marginson, S., & van der Wende, M. (2007). To rank or to be ranked: The impact of global rankings in higher education. *Journal of Studies in International Education*, *11*, 306-329.

McCormick, A. C. (2008). The complex interplay between classification and ranking of colleges and universities: Should the Berlin principles apply equally to classification? *Higher Education in Europe*, *33*, 209-218.

Montesinos, P., Carot, J. M., Martinez, J.-M., & Mora, F. (2008). Third mission ranking for world class universities: Beyond teaching and research. *Higher Education in Europe*, *33*, 259-271.

Pelikan, J. (1992). *The idea of the university: A reexamination*. New Haven, CT: Yale University Press.

QS world university rankings. (2011). Retrieved from QS Top Universities website: http://www.topuniversities.com/university-rankings/world-university-rankings

Ranking of ukrainian universities according to scopus. (2012). Retrieved from http://www.nbuv.gov.ua/rating/ratings_uni/index.html

Ranking Web of Universities. (2012). Retrieved from http://www.webometrics.info/

Readings, B. (1997). *The university in ruins*. London, UK: Harvard University Press.

Salmi, J. (2009). *The challenge of establishing world-class universities.* Washington, DC: World Bank.

Schwab, K. (2010). *The global competitiveness report 2010-2011.* Retrieved from http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf

Schwab, K. (2011). *The global competitiveness report 2011-2012.* Retrieved from http://gcr.weforum.org/gcr2011/

Shin, J. C., Toutkoushian, R. K., & Teichler, U. (2011). *University rankings: Theoretical basis, methodology and impacts on global higher education.* New York: Springer.

Ukrainian Universities Ranking "Compass." (2012). Retrieved from http://www.yourcompass.org/

United Nations Development Programme. (2010). *Human development report 2010 -- The real wealth of nations: Pathways to human development.* Retrieved from http://hdr.undp.org/en/reports/global/hdr2010/chapters/

Välimaa, J., & Hoffman, D. (2008). Knowledge society discourse and higher education. *Higher Education*, *56*, 265-285.