

A Review on the Major Global University Ranking Systems and the Turkish Universities' Overall Position in Rankings

Üniversite Sıralama Sistemleri ve Bu Sıralamalarda Türk Üniversiteleri'nin Konumu Üzerine Bir İnceleme

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Abstract

Amidst the increasingly competitive environment in the field of higher education, world ranking systems have gained more research attention in recent years. In this article, the main objectives are to attract attention of especially Turkish academics and policy makers to university ranking systems in the world and to show the overall position of Turkish universities in these ranking systems. With this aim, the major rankings were specially examined in terms of their measurements from the original websites of them. As a result of this review, the position of Turkish universities among the top 500 universities in these rankings over a six-year period are determined from 2011 to 2016; then, obtained data through the original websites of these ranking systems and the reports of the URAP are compiled and presented in tables. Two issues can be observed from the study: research performance is one of the major indicators used in all world ranking systems, and the overall position of Turkish universities in such rankings is not very good. This article can help all staff in academia provide the better understand the goals, importance and measurements of ranking systems and Turkish Universities' position in these rankings. Thus, the study tries to create awareness about the need of improving their position. After this paper, the further research is likely to examine the concept of research performance as an important criterion of determining the universities' position in the major world rankings to obtain a broad and comprehensive perspective.

Keywords: Higher education, world ranking systems, indicators of rankings, Turkish universities' position

Öz

Yükseköğretim alanında giderek artan rekabetçi ortam etkisiyle son yıllarda üniversite sıralama sistemleri üzerine olan araştırmalar oldukça önem kazandı. Bu makale, özellikle Türkiye'deki akademisyenlerin ve bu konuda söz sahibi yöneticilerin, uluslararası üniversite sıralama sistemleri üzerine dikkatlerini çekmeyi ve Türk üniversitelerinin bu sıralamalardaki konumunu ortaya koymayı amaçlanmıştır. Bu bağlamda, dünyadaki en önemli sıralama sistemleri kendi internet sitelerinden özellikle ölçütleri açısından incelenmiştir. Bu inceleme sonucunda, 2011'den başlayarak 2016 yılına kadar 6 yıllık bir dönemde üniversitemizin bu sıralamalarda ilk 500'deki yeri, her sıralama sisteminin orijinal web sitesinden ve URAP raporlarından elde edilen veriler derlenerek tablolar halinde sunulmuştur. Bu çalışma sonucunda özellikle iki bulgu dikkate değer bulunmuştur. Birincisi, incelenen altı sıralama sisteminde de araştırma performansının ne denli önemli bir ölçüt olduğu; ikincisi ise üniversitemizin bu sıralamalarda çok da iyi bir pozisyonda olmadığıdır. Bu araştırma, akademiyle ilgilenen tüm paydaşlara üniversite sıralama sistemlerinin amaçlarını, önemini, ölçütlerini göstermeyi ve üniversitemizin uluslararası sıralamalardaki konumunu anlamaları hususunda onlara yardımcı olmayı hedeflemiştir. Böylelikle, çalışmanın, üniversitemizin konumunun iyileştirilmesinin gerekliliği hususunda bir farkındalık oluşturması beklenmektedir. Bir sonraki çalışmamızda, birçok sıralama sisteminde en önemli kistas olarak gözlemlenen araştırma performansı konusu irdelenecek ve böylece konuyla ilgili daha geniş ve bütüncül bir bakış açısı oluşturulmaya çalışılacaktır.

Anahtar sözcükler: Yükseköğretim, dünya sıralama sistemleri, sıralama ölçütleri, Türk üniversitelerinin konumu

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Introduction

All the world over, the growth and expansion of access to higher education have created demand for information on universities' standards and have led to the development of university ranking systems in several countries (Çakır, Acartürk, Alaşehir, & Çilingir, 2015; Dill & Soo, 2005; Taylor & Braddock, 2007; Usher & Savino 2007). Rankings can be used for benchmarking the performance of universities and higher-education systems (Marconi & Ritzen, 2015). Benchmarking has attracted increasing interest from students and their families, academics, researchers, policymakers, and also the media in the past decade.

Various stakeholders in society use university rankings for different purposes (Dill & Soo, 2005). First, prospective students and their families are interested in university rankings in order to enable their choice of an appropriate university with respect to different aspects such as the quality of education, future career prospects, and cost of education (Bastedo & Bowman, 2011; Çakır, Acartürk, Alaşehir, & Çilingir, 2015; Hazelkorn, 2008). Second, academics, policymakers, and university managers use rankings; they see rankings as a key driver for the advancement of their own careers and the furtherance of institutions' strategic planning. Policymakers and university managers can provide information by using rankings to evaluate their institution's position in the world as well as in their own countries. Finally, rankings also attract the attention of the media because of increasing interest in higher education from varied strata of society. Media institutions utilize university rankings as a means to inform society regarding the status of higher education institutions in the country and in the world (Alaşehir, Çakır, Acartürk, Baykal, & Akbulut, 2014).

All this interest in university rankings has resulted in the improvement of various ranking systems throughout the world. The various ranking systems consider different parameters, including the publication and citation counts, student/faculty ratio, percentage of international students, winners of the Nobel prize and other prizes, number of highly cited researchers and papers, articles published in *Science* and *Nature*, and h-index and web visibility (Aguillo, Bar-Ilan, Levene, & Ortega, 2010). In addition to these indicators, staff and student quality, academic reputation, financial information, and infrastructure and facilities on university campuses are also used as other important components of existing ranking systems with different percentage weights. Even if each ranking system uses a distinct set of criteria (e.g., assigning different weights to each criterion), it has been observed that research performance, mainly including the publications (books and articles), journal quality index, citation indexes, number of honors and awards, number of papers presented in meetings, number of dissertations, number of invitations to present papers, and success in obtaining research grant funding, is the backbone of many existing

ranking systems (Bazeley 2010; Burke, Fender, & Taylor, 2007; Cheng, Wang, & Liu, 2014; Çakır et al., 2015).

Although extant studies in the literature present several different perspectives on existing ranking systems, most of them do not employ a simple review, particularly in terms of indicators. Moreover, an account of Turkish universities' position in these rankings in one paper fills another gap in the relevant literature. This study aims at addressing these gaps in the literature by examining seven global ranking systems including URAP as an important international ranking system is developed in Turkey and the other six are mentioned in URAP's report. With this aim, the study is organized as follows: (i) the aim and significance of major global rankings are identified on the basis of the literature; (ii) the seven major global ranking systems are examined particularly in terms of indicators; (iii) the position of Turkish universities in these rankings is presented. Therefore, the study tries to answer these questions: "which criteria affect a university's common position in the rankings and what is the position of Turkish universities in the world rankings?" At the end of the paper, two issues can be emphasized. First, research performance, including many measurements related to academic output, such as the number of publications and number of citations, is one of the major indicators used in all world ranking systems. Second, the overall position of Turkish universities in such rankings is not enviable. This article provides a good understanding of world ranking systems and reveals the status of Turkish universities. Thus, the study tries to create awareness regarding the need for improving their position.

The Importance of World Ranking Systems

Increasing competition among the higher education institutions has led to seek effective competitive strategies for universities. In this competitive area, rankings have become a key indicator for university administrators, they increasingly rely on rankings as a marketing tool (Hossler, 2000; Hunter 1995).

The university rankings have gained importance since 1983, when the US News and World report started to introduce the annual America's best colleges review. At the beginning, rankings were appeared with the objective of informing academics and government officials (Stuart 1995), recent they are also using as an important tool in several aspects. According to Machung (1998), universities use rankings to attract students, to bring in alumni donations, to recruit faculty and administrators, and to attract potential donors—all key performance metrics. Jesensek (2006) stated the objectives of rankings as directing an entrant to higher educational programs, evaluating the phenomena of the international higher education market, introducing market directions for universities at national levels, and enhancing sound and positive competition for students, professors, and the funders of universities. Lukman and Glavič (2009) said that ranking tables also offer information about the quality and other characteristics of higher education institutions, influencing

the students' matriculation. Hazelkorn (2008) outlined the students look at these rankings when choosing which university to attend, employers take them into consideration when recruiting employees and other stakeholders use them for decisions about funding and sponsorships.

Rankings may provide perspective on the expected amount of contribution at a university, and help faculty identify the dominant research areas within the university (Mahoney, Buboltz, Calvert, & Hoffmann, 2010). In addition, they are considered a measure of education 'quality', which is on the agenda of policymakers as it is considered to contribute to the aggregate level of human capital (Hanushek & Woessmann, 2012).

Another reason why rankings are so important is that they have been shown to influence the preferences of students, not only at a national level but also at an international level (Dichev, 1999; Marconi, 2013; Monks & Ehrenberg, 1999; Sauder & Lancaster, 2006). Governments and university leadership generally want to improve the standing of a university in international university rankings. The most intuitive way of improving this standing is by increasing the resources available to a university. This should translate into better (or more) teachers, researchers and facilities, which should improve the indicators of quality on which rankings are based (Marconi & Ritzen, 2015).

Concisely, rankings can be used by faculty members, including academics and managers, and also students and their families. For the faculty, the rankings can serve as a gauge of a university's research productivity, which then identifies its position in the rankings. For students and their families, the rankings can be an important evaluation tool in seeking the right institutions that match their interests during the university selection process. In short, global rankings can sometimes employ as a useful instrument for accountability of universities, supplying information to both students and academics on measurable differences in quality, while also providing an incentive to higher education institutions for motivation of improvement within organizations (Gormley & Weimer, 1999). They which compare the performance of different institutions have been advocated as a potentially efficient and effective means of providing needed information to student consumers as well as helping inform universities and policymakers on areas needing improvement (Dill & Soo, 2005).

As university rankings attract the attention of several people, they have gained importance throughout the world. Therefore, several different ranking systems are developed by different institutions. This article examined the following seven major global ranking systems including URAP as an important international ranking system is developed in Turkey and the six are mentioned in URAP's report:

- a. First of them is The Academic Ranking of World Universities (ARWU) commonly known as The Shanghai Ranking. It was published in 2003 by the

Center for World-Class Universities, the Institute of Higher Education of Shanghai Jiao Tong University at China. Since 2009 ARWU has been published and copyrighted by Shanghai Ranking Consultancy. Although the first aim of this ranking was to find the global standing of top Chinese universities, it has attracted a great attention from all over the world. It has been reported by important media institutions in almost all major countries. More than 1200 universities are actually ranked by ARWU every year and the best 500 are published. The indicators of The Academic Ranking of World Universities as follows (ARWU, 2016): (i) The total number of alumni of an institution winning Nobel Prizes and Fields Medals Alumni (10%). The rate of awards received in recent history is more highly regarded such as while the weight is 100% for alumni obtaining degrees in 2001-2010, 80% for alumni obtaining degrees in 1981-1990, and 10% for alumni obtaining degrees in 1911-1920. (ii) The total number of the staff of an institution winning Nobel Prizes and Fields Medals has (20%). The rate of awards received in recent history is more highly regarded such as while the weight is 100% for winners after 2011, 90% for winners in 2001-2010, 80% for winners in 1991-2000, and so on, and finally 10% for winners in 1921-1930. (iii) Highly cited researchers in 21 subjects (20%). This criteria refers the number of Highly Cited Researchers selected by Thomson Reuters. Thomson Reuters has two lists of Highly Cited Researchers. One of them is the old list issued in 2001 and it included more than 6,000 researchers. Other is the new list issued in 2014 and it identified 3,000 names. In order to have a relatively smooth transition to the new list of Highly Cited Researchers, both the old and the new Highly Cited Researchers list are used in the calculation of HiCi indicator in ARWU, they are equally weighted in their calculation systems. (iv) The number of papers published in Nature and Science (20%). (v) Total number of papers indexed in Science Citation Index-Expanded and Social Science Citation Index (20%). (vi) Per capita academic performance of an institution weight (20%). The weighted scores of the above five indicators divided by the number of full-time academic staff.

b. Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) is another major ranking system in the world. This ranking, recently renamed as Performance Ranking of Scientific Papers for World Universities, aims to evaluate and rank universities in terms of their academic publication performance. HEEACT publishes the ranking of top 500 world universities annually since 2007. Quantitative data of this ranking is drawn from Science Citation Index (SCI) and Social Sciences Citation Index (SSCI). The data are normalized by faculty number to account for different institution sizes. In 2012, the ranking was rename as NTU Ranking and independently released by National Taiwan University. The basic indicators of NTU ranking under three categories as follows (NTU Ranking,

2016): (i) Research productivity (25%) includes the number of articles published in the past 11 years (10%) and the number of articles published in the current year (15%). (ii) Research impact (35%) includes the number of citations in the last 11 years (15%), number of citations in the last 2 years (10%), and average number of citations in the last 11 years (10%). (iii) Research excellence (40%) consists of the h-index of the last 2 years (10%), the number of highly cited papers in the past 11 years (15%) and the number of articles of the current year in high impact journals (15%).

c. Third of global ranking system examining in the study is Centrum voor Wetenschap en Technologische Studies Leiden (CWTS Leiden) rankings. This ranking is an annual global university ranking based exclusively on bibliometric indicators which was first published by Leiden University in the Netherlands in 2007. In 2016, it offers key insights into the scientific performance of 842 major universities worldwide. These universities have been selected based on their number of Web of Science indexed publications in the period 2011–2014. The system of LEIDEN provides multiple ranking tables based on individual criteria grouped under two broad categories called impact and collaboration. In this system, there are no specific weights are assigned to each indicator. The criteria of this ranking as follows: (i) Impact indicators are listed under impact includes *mean citation score* (MCS: The average number of citations of the publications of a university), *mean normalized citation score* (MNCS: The average number of citations of the publications of a university, normalized for field differences and publication year. For example, an MNCS value of 2 means that the publications of a university have been cited twice above world average) and *proportion of top 10 % publications* (PP 10 %: The proportion of the publications of a university that belong to the top 10% most frequently cited, compared with other publications in the same field and in the same year, PP10 % indicator was considered for comparison purposes, since LEIDEN considers it as the most stable and important impact indicator). (ii) Collaboration indicators include *the proportion of inter-institutional collaborative publications* (the proportion of the publications of a university that have been co-authored with one or more other organizations), *the proportion of international collaborative publications* (the proportion of the publications of a university that have been co-authored by two or more countries), *the proportion of collaborative publications with industry* (the proportion of the publications of a university that have been co-authored with one or more industrial partners) and *the proportion of short-distance collaborative publications* (the proportion of the publications of a university with a geographical collaboration distance of less than 100 km) and lastly, *proportion of long-distance collaborative publications* (the proportion of the publications of a university with a geographical collaboration distance of more than 1000 km).

d. The other important ranking is Quacquarelli Symonds (QS) World University Rankings. It first published in 2004, the ranking highlights more than 900 of the top universities in the world in 2016, based on six key performance indicators, each of them carries a different weighting when calculating overall scores as can be seen below. This ranking is widely referenced by prospective and current students, academics and governments around the world. The criteria of this ranking as follows (QS TOPUNIVERSITIES, 2016): (i) Academic reputation (40%). It is measured using a global survey, in which academics are asked to identify the institution where they believe the best work is currently taking place within their own field of expertise. This survey asks active academicians across the world about the top universities in their specialist fields. The 2016-17 rankings made use of responses from 74,651 people from over 140 nations for its Academic Reputation indicator. (ii) Employer reputation (10%). This part of the ranking is obtained by a similar method to the Academic reputation, except that it samples recruiters who hire graduates on a global or significant national scale. The numbers are smaller – 37,781 responses from over 130 countries in the 2016 Rankings – and are used to produce 10 per cent of any university's possible score. (iii) Faculty/student ratio (20%). This indicator accounts for 20 per cent of a university's possible score in the rankings. It is a classic measure used in various ranking systems. (iv) Citations per faculty (20%). Citations of published research are among the most widely used inputs to national and global university rankings. This ranking system uses citations data from Scopus, the largest database of research. (v) The final 10% of a university's possible score is derived from measures intended to capture their internationalism. 5% from their percentage of international students, and another 5% from their percentage of international staff. This is of interest partly because it shows whether a university is putting effort into being global, but also because it tells us whether it is taken seriously enough by students and academics around the world for them to want to be there.

e. Fifthly, SCImago Institutions Rankings (SIR) was examined. It was first published in 2009. SIR is a science evaluation resource to assess worldwide universities and research-focused institutions. This ranking system was developed by SCImago Research Group, a Spain-based research institutions in Spain. The SCImago Institutions Rankings is a classification of academic and research-related institutions ranked by a composite indicator that combines three different sets of indicators (The SCImago Institutions Rankings, 2016). They are as follows: (i) Research (50%) is calculated with 8 factors. First is the output (8%). This refers to the total number of documents published in scholarly journals indexed in Scopus. The second is international collaboration (2%). This refers the institution's output produced in collaboration with foreign institutions. Normalized impact

(13%) is another criteria computed over the institution's leadership output using the methodology established by the Karolinska Institutet in Sweden. High quality publications (2%) criteria refers to the number of publications that an institution publishes in the most influential scholarly journals of the world. Excellence (2%) is another factor of this indicator indicates the amount of an institution's scientific output that is included in the top 10% of the most cited papers. Scientific leadership (5%) indicates the amount of an institution's output as main contributor, that is, the amount of papers in which the corresponding author belongs to the institution. Another factor is excellence with leadership (13%) which indicates the amount of documents in excellence in which the institution is the main contributor. Lastly, scientific talent pool (5%) refers the total number of different authors from an institution in the total publication output of that institution during a particular period of time. (ii) Innovation (30%). 25% of it belongs to innovative knowledge which refers scientific publication output from an institution cited in patents based on European Patent Office. 5% of this criteria belongs to technological Impact which expresses the percentage of the scientific publication output cited in patents based on European Patent Office. (iii) Societal impact (20%) is computed with two criteria. One of them is web size (15%). This means that the number of pages associated to the institution's URL according to Google. Other is the domain's inbound links (5%) which refers the number of incoming links to an institution's domain according to Ahrefs report.

f. The other important ranking is the Times Higher Education (THE) World University Rankings. It was founded in 2004, identifies the list of the world's best universities. The team of Times Higher Education World University Rankings evaluate the world-class universities against 13 separate performance indicators, under five areas, namely research; teaching, citations, international outlook and industry income. The overall THE World University Rankings are prepared according to six different subjects, namely arts and humanities, social sciences, physical sciences, life sciences, engineering and technology and medicine. All the rankings tables also can be filtered by country and any one of five key areas of performance. THE's data are trusted by governments and universities and are a vital resource for students, helping them choose where to study. The indicators of ranking as follows (THE World University Rankings, 2016): (i) Teaching (30%) is calculated based on 5 factors. First of them is reputation survey (15%). It examines the perceived prestige of institutions in teaching. The responses are selected statistically representative of the global academy's geographical and subject mix. The second one is staff-to-student ratio (4.5%). Thirdly, doctorate-to-bachelor's ratio (2.25%). Other is doctorates awarded-to-academic staff ratio (6%). This indicator is normalized to take account of a university's unique subject mix, reflecting

that the volume of doctoral awards varies by discipline. Lastly, institutional income (2.25%). It indicates an institution's general status and gives a broad sense of the infrastructure and facilities available to students and staff. (ii) Research (30%) indicator is grouped into three factors. The effect of reputation survey on the 30% is 18%. This survey looks at a university's reputation for research excellence among its peers, based on the responses. Research income is another factor computing research score of universities which has 6% weight on research indicator. It is scaled against staff numbers and adjusted for purchasing-power parity. This indicator can be controversial because of national policy and economic situations. Lastly, research productivity is calculated as a part of research indicator. The weight of research productivity on the research indicator is 6%. It indicates the number of papers published in the academic journals indexed by Elsevier's Scopus per scholar, scaled for institutional size and normalized for subject. (iii) Citations (30%). (iv) International outlook (7.5%) indicator is calculated based on three factors with following weights: international-to-domestic-student ratio (2.5%), international-to-domestic-staff ratio (2.5%) and international collaboration (2.5%). (v) Industry income (2.5%) indicator is related with knowledge transfer ability of universities. It searches knowledge-transfer activity by looking at how much research income an institution earns from industry adjusted for purchasing-power parity, scaled against the number of academic staff it employs.

g. Lastly, University Ranking by Academic Performance (URAP) was established at Middle East Technical University in 2009. URAP's ranking of Top 2000 world universities has been published by the URAP lab since 2010. Main objective is to develop a ranking system for the world universities based on academic performances. The team of URAP improves the ranking system using contemporary data mining techniques along with bibliometric and scientometric analyses. The indicators include (URAP, 2016): (i) The number of articles published in the last year (21 %). This is the measure of current scientific productivity which includes the articles published in last year and indexed by Web of Science. (ii) The number of all scientific documents published in the last 5 years (10 %). It is the measure of sustainability and continuity of scientific productivity and presented by the total document (data is obtained from Web of Science) count which covers all scholarly literature including conference papers, reviews, letters, discussions, scripts in addition to journal articles published during last 5 years period. (iii) The number of citations accrued in the last year for the documents published in the last 5 years (21 %). It is the measure of research impact and scored according to the total number of citations received in determined years and indexed by Web of Science. Self-citations are excluded from the calculation. (iv) The journal impact total, which is derived by aggregating the impact factors of journals in which a university published

articles in the past 5 years (18 %). It is a measure of scientific impact which is derived by aggregating the impact factors of journals in which a university published articles in last year which are obtained from the Journal Citation Reports. (v) The journal citation impact total, which aggregates the impact factors of journals in which the citing articles were published (15 %). It measures citation quality of citations received in last year for the articles published during last 5 years period. It is based on aggregating the impact factors of journals where the citing articles are published. This value is obtained from the Journal Citation Reports. (vi) International Collaboration (%15). It is a measure of global acceptance of a university. This data is based on the total number of publications made in collaboration with foreign universities, is obtained from the Thomson Reuters' InCites research analytics service, which provides an interface to the Web of Science database.

Overall Position of Turkish Universities in the Global Rankings between 2011 and 2016

After examining the position of Turkish Universities in the rankings, among all universities, only 11 of them have placed in these rankings. Unfortunately, the majority of Turkish universities have low positions in global rankings. As shown in the following six tables, the 11 Turkish universities among the top 500 universities in world rankings include Istanbul University, Ankara University, Middle East Technical University, Hacettepe University, Gazi University, Ege University, Bilkent University, Istanbul Technical University, Boğaziçi University, Sabancı University, and Koç University. The positions of these 11 universities in the Top 500 lists of seven global ranking systems in the last six years are shown in the following tables.

Table 1

The Positions of Turkish Universities at the Top 500 Lists of Global Ranking Systems in 2011

No	University	I*	II**	III***	IV****	V*****	VI*****	VII*****
1	Istanbul University	301-400	-	497	-	-	-	383
2	METU	-	-	375	-	-	183	495
3	Hacettepe University	-	-	489	-	-	-	400
4	Ankara University	-	-	496	-	-	-	464
5	Gazi University	-	-	493	-	-	-	-
6	Ege University	-	-	467	-	-	-	486
7	Bilkent University	-	-	-	401-450	-	112	-
8	Sabancı University	-	-	-	451-500	-	-	-

*Raw data obtained from ARWU website and arranged by author.

**Raw data obtained from NTU Ranking website and arranged by author.

***Raw data obtained from CWTS Leiden Ranking website and arranged by author.

****Raw data obtained from QS TOPUNIVERSITIES website and arranged by author.

*****Raw data obtained from The SCImago Institutions Rankings website and arranged by author.

*****Raw data obtained from THE World University Rankings website and arranged by author.

*****Raw data obtained from URAP website and arranged by author.

Table 2
The Positions of Turkish Universities at the Top 500 Lists of Global Ranking Systems in 2012

No	University	I	II*	III	IV	V	VI	VII
1	Istanbul University	401-500	-	497	-	-	-	421
2	METU	-	-	375	451-500	-	276-300	489
3	Hacettepe University	-	-	489	-	-	-	429
4	Ankara University	-	-	496	-	-	-	491
5	Gazi University	-	-	493	-	-	-	-
6	Ege University	-	-	467	-	-	-	473
7	Bilkent University	-	-	-	401-450	-	201-225	-
8	ITU	-	-	-	-	-	276-300	-
9	Boğaziçi University	-	-	-	-	-	301-350	-

* In 2012, the HEEACT was rename as NTU.

Table 3
The Positions of Turkish Universities at the Top 500 Lists of Global Ranking Systems in 2013

No	University	I	II	III	IV	V	VI	VII
1	Istanbul University	401-500	-	496	-	-	-	421
2	METU	-	-	418	431-440	493	201-225	489
3	Hacettepe University	-	-	490	-	-	-	429
4	Ankara University	-	-	500	-	-	-	491
5	Gazi University	-	-	486	-	-	-	-
6	Ege University	-	-	474	-	-	-	473
7	Bilkent University	-	-	-	431-440	-	226-250	-
8	ITU	-	-	-	-	-	276-300	-
9	Boğaziçi University	-	-	-	461-470	-	276-300	-
10	Koç University	-	-	-	-	-	226-250	-

Table 4
The Positions of Turkish Universities at the Top 500 Lists of Global Ranking Systems in 2014

No	University	I	II	III	IV	V	VI	VII
1	Istanbul University	401-500	-	349	-	-	-	489
2	METU	-	480	457	401-410	484	201-225	433
3	Hacettepe University	-	-	402	-	-	-	-
4	Sabancı University	-	-	-	471-480	-	-	-
5	Gazi University	-	-	497	-	-	-	-
6	Ege University	-	-	432	-	-	-	487
7	Bilkent University	-	-	-	399	-	226-250	-
8	ITU	-	-	-	-	-	201-225	488
9	Boğaziçi University	-	-	-	399	-	199	-
10	Koç University	-	-	-	461-470	-	276-300	-

Table 5
The Positions of Turkish Universities at the Top 500 Lists of Global Ranking Systems in 2015

No	University	I	II	III	IV	V	VI	VII
1	Istanbul University	401-500	-	346	-	495	-	487
2	METU	-	480	485	431-440	492	85	467
3	Hacettepe University	-	-	426	-	-	-	-
4	Sabancı University	-	-	-	441-450	-	182	-
5	Gazi University	-	-	-	-	-	-	-
6	Ege University	-	-	447	-	-	-	-
7	Bilkent University	-	-	-	394	-	201-225	-
8	ITU	-	-	-	-	-	165	-
9	Boğaziçi University	-	-	-	441-450	-	139	-
10	Koç University	-	-	-	481-490	-	301-350	-

Table 6
The Positions of Turkish Universities at the Top 500 Lists of Global Ranking Systems in 2016

No	University	I	II	III	IV	V	VI	VII
1	Istanbul University	401-500	-	353	-	490	-	487
2	METU	-	-	-	471-480	-	-	467
3	Hacettepe University	-	-	452	-	-	-	-
4	Sabancı University	-	-	-	441-450	-	351-400	-
5	Ege University	-	-	482	-	-	-	-
6	Bilkent University	-	-	-	411-420	-	351-400	-
7	ITU	-	-	-	-	-	-	-
8	Boğaziçi University	-	-	-	471-480	-	401-500	-
9	Koç University	-	-	-	451-460	-	251-300	-

Discussion, Conclusion and Suggestions

In recent years, the higher education environment has dramatically changed in Turkey. The number of universities has increased substantially. In 1987 there was only one foundation university and 28 state universities but the by 2015, the number had increased to 80 foundations, 112 state universities. As 15 of Foundation Universities were closed because of July 15 coup attempt, the number of universities has decreased from 192 to 177 in 2016. This means that the number of higher education institutions show a steady rise over the past 30 years except this year. In 1987, the number of students enrolled in higher education was 502,380; in 2016, this number reached to 6,689,185. In 1987, the number of academic staff was 24,382; in 2016, this number increased to 156,168. As it will be apparent from this numbers, higher education has significantly expanded in Turkey since the 1980s with a marked increase in the number of

universities, students, and academic staff (Çetinsaya, 2014; Konur, 2011). The twentieth century has witnessed a massive expansion of higher education (Schofer & Meyer, 2005) not only for Turkey but also for all world. Thus, higher education has also become increasingly important for a wide range of people.

One consequence of the increasing importance of higher education has been the development of ranking systems in countries and regions as the public seeks to differentiate institutions in a growing, complex market (Dill & Soo 2005). Higher education institutions see rankings as a factor influencing their organizational mission and strategy. Rankings seem to have a particularly strong influence on the decision-making process of students and their families. An institution's getting into the top rankings has been shown to have a strong impact on students applying to it (Bowman & Bastedo 2009). In addition, the schools that are top-ranked have more applications, higher yield rates, and thus lower acceptance rates (Bowman & Bastedo, 2011). This situation has led to these universities and also their countries gaining prestige (Jesensek, 2006; Li, Shankar & Tang, 2011). Rankings are also increasingly being used as a policy instrument to assess the performance of institutions by government agencies (Salmi & Saroyan 2007; Sponsler 2009).

Although for more than 30 years, university rankings have been seen as an important global phenomenon in many aspects, such as directing an entrant to higher educational programs, evaluating the occurrences in the international higher education market, introducing market directions for universities at national levels, enhancing sound and positive competition for students, professors, and financers of universities (Jesensek, 2006), and offering information on the quality and other characteristics of higher education institutions (Lukman & Glavič, 2009), there is not enough research on this concept in Turkish literature. As the literature on ranking systems is limited in Turkey, many of the articles cited above are based on the data of other countries. Therefore, this study attempts to fill this gap in Turkish literature. Besides that, the article also aims at creating awareness regarding ranking systems among Turkish academics. To achieve these aims, this study examines the goals and indicators of seven global rankings. Toward the end of this review, the significance of research performance draws attention as a major criterion for ranking systems. Then, the position of Turkish universities in each ranking system is examined, and the overall position of our universities in these rankings is presented in the tables.

Upon examining the quantitative development of Turkish higher education mentioned above, these numbers do not show parallel improvement in terms of success in rankings that assess as a kind of tool for measuring quality of universities. The tables in the article show that our universities cannot obtain a

position in the top 10, 50, or even 100. On examining these tables, the following results can be observed.

- In ARWU, we have just one university, namely, Istanbul University. While it was in the 301–400 range in 2011, it was in the 400–500 range in other years (2012, 2013, 2014, 2015, and 2016). In NTU, we again only have one university and even that is only for two years (2014 and 2015); this university is METU. It was in the 400–500 range. The measurements of these two ranking systems are based on research performance, it should be noted that ARWU selects universities that have Nobel Laureates, Field Medalists, and highly cited researchers or authors whose articles were published in *Nature* or *Science*, while NTU employs multiple indicators grouped under three categories: research productivity, research impact, and research excellence. Therefore, our universities cannot get a high ranking due to the effect of research performance on these systems.
- The LEIDEN system provides multiple ranking tables based on individual criteria grouped under two broad categories: impact and collaboration. Because the LEIDEN system adopts a different approach, we had six universities in 2011, 2012, and 2013, namely, Istanbul, METU, Hacettepe, Ankara, Gazi, and Ege universities. One of them (METU) was at 375 while the others were in the 400–500 range in 2011 and 2012. However, in 2013, METU dropped to the 400–500 range. In 2014, 2015, and 2016, Istanbul University improved its position to 349, 346, and 353, respectively. In 2014, based on this ranking system, besides Istanbul University, there were four universities, namely, METU, Hacettepe, Gazi, and Ege, in the 400–500 range; however, Ankara University was not included. In 2015, besides Istanbul University, there were three universities, namely, METU, Hacettepe, and Ege, in the 400–500 range. In 2016, besides Istanbul University, there were two universities, namely, Hacettepe and Ege, in the 400–500 range.
- The QS rankings introduced a different approach—that of seeking opinions on universities from academics in other institutions and from employers of university graduates. The QS ranking system is based on six indicators: academic reputation, employer reputation, the faculty–student ratio, number of citations per faculty compiled from the Scopus database, the proportion of international students, and the proportion of international faculty members. Therefore, the names of universities that break into the top positions in this ranking system have changed. Bilkent University garnered a position in the 394–450 range over a six-year period (2011–2016). Except for 2011, METU was in the 400–500 range. Sabancı was in the 400–500 range in 2011, 2014, 2015, and 2016. Boğaziçi was ranked between 399–480 in 2013, 2014, 2015, and 2016. Koç was in the 400–500 range in the last three years.

- The SCImago Institutions Rankings (SIR) ranks on the basis of a composite indicator that combines three different sets of indicators, namely, research has a big rate with 50% impact on the ranking, others are innovation, and societal impact. Two universities, namely, Istanbul and METU, found a place in these rankings. METU took a position in the 400–500 range in 2013, 2014, and 2015. Istanbul University held a position in the same range in 2015 and 2016.
- Times Higher Education World University Rankings (THE) indicators are grouped under five areas, namely, teaching (30%), research (30%), field-normalized citations accrued in the last 5 years (30%), international outlook (7.5%), and industry income (2.5%). In this ranking system, even if research has a 30% impact overall on the ranking system, this dimension is based on various categories from other rankings such as ARWU and NTU. In this ranking system, the research dimension includes the research reputation score derived from the reputation survey, university income (scaled against faculty size and adjusted for purchasing-power parity), and research output per faculty member (scaled for the faculty size and normalized for the subject). Based on the effect of different measurements, Turkish universities' position in this ranking system is better than those in others. Specially, Turkey's prestigious universities found a place in this ranking probably depend on the effect of reputation surveys. There are five universities in the top 200. METU was at 85 in 2015, and it was at 183 in 2011. It was in the 200–300 range in 2012, 2013, and 2014. In 2016, it did not make it to the rankings. Bilkent was at 112 in 2011. It was in the 200–300 range in 2012, 2013, 2014, and 2015. In 2016, it was in the 300–400 range. ITU was in the 200–300 range in 2012, 2013, and 2014. While it was at 165 in 2015, it did not earn a position in 2011 and 2016. Boğaziçi was ranked higher in 2014 and 2015, at 199 and 139, respectively. While in 2016, it was ranked in the 400–500 range, in 2012 and 2013, it was ranked in the 301–350 range and the 276–300 range, respectively. It did not make it to the rankings in 2011. Koç obtained a position in 2013, 2014, 2015, and 2016 in the 200–350 range. It did not find a place on the rankings in 2011 and 2012. Sabancı was at 182 in 2015 and was in the 351–400 range in 2016.
- The URAP ranking is based on six research performance indicators, including the number of articles, number of scientific documents, number of citations, number of published papers that include at least one international coauthor, total journal impact, and total journal citation impact. Similar to the LEIDEN rankings, we had five universities in 2011, 2012, and 2013, namely Istanbul, METU, Hacettepe, Ankara, and Ege universities, generally in the 400–500 range. Istanbul and METU have maintained their place in the 400–500 ranges in 2014, 2015, and 2016. ITU has also attained a place in the 400–500 range but only in 2014.

Overall, there are 11 Turkish universities among the top 500 universities in world rankings include Istanbul University, Ankara University, Middle East Technical University, Hacettepe University, Gazi University, Ege University, Bilkent University, Istanbul Technical University, Boğaziçi University, Sabancı University, and Koç University. The ranking of these 11 universities in the top 500 lists of seven global ranking systems is generally in the 400–500 range. We have emphasized that research performance is usually the major criterion of these ranking systems as demonstrated by the literature review and the examination of these ranking systems' indicators. Considering that the five Turkish universities in the top 500 list host medical faculty members and that medical faculty members have a publication requirement in Turkish higher education system may explain the position of these universities in the ranking systems. The higher rankings of Turkish universities in TIMES may be explained by its “teaching” criterion that is measured by indicators such as reputation, student–staff ratio, and doctoral student ratio, as well as its “research” criterion that relies on more abstract sub-indicators such as reputation (academic prestige). This view is supported by the fact that the universities that secured a place in TIMES are highly prestigious Turkish universities, such as METU, Boğaziçi, Bilkent, Koç, and Sabancı. One additional factor responsible for our higher performance in TIMES is perhaps that it measures academic performance relying on the Scopus index, a database that is relatively easy to publish. Our lower rankings in ARWU and NTU, which measure academic performance based on the Social Science Citation Index, a relatively difficult database to publish, support this view. It is our contention that we can gain a fuller picture regarding the extent of validity of our arguments if they can be reexamined in the light of the tangible results of future studies.

Even if there are many debates regarding ranking systems, it should be noted that the ranking system is an important attempt to evaluate universities from more objective perspectives. Therefore, this article aimed at examining this significant instrument that evaluates higher education institutions. This study can help academics and also university managers to provide a better understanding of world ranking systems and also Turkish universities' overall positions in the rankings. Thus, this paper attempted to create awareness regarding rankings and also the need to improve Turkish universities' positions in the rankings. Further research can examine the concept of research performance as an important criterion in determining universities' positions in major world rankings. Understanding research performance and the factors affecting it can lead to a better standing for Turkish universities in future rankings.

Structured Abstract/Yapılandırılmış Öz

Üniversite Sıralama Sistemleri ve Bu Sıralamalarda Türk Üniversiteleri'nin Konumu Üzerine Bir İnceleme

Oya Tamtekin Aydın¹

Giriş. Yükseköğretime olan talebin artmasıyla ortaya çıkan rekabet olgusu üniversiteler hakkındaki bilgi talebini karşılayacak ve değerlendirme yapacak bir sistem ihtiyacını yaratmış, bu ihtiyaç ise birçok ülkede farklı uluslararası sıralama sistemlerinin geliştirilmesine yol açmıştır (Çakır, Acartürk, Alaşehir, ve Çilingir, 2015; Dill ve Soo, 2005; Taylor ve Braddock, 2007; Usher ve Savino 2007). Geliştirilen bu uluslararası üniversite sıralama sistemleri, ülkelerin yükseköğretim sistemlerini ve üniversite performanslarını kıyaslayan etkin bir araç olarak kabul edilmiştir (Marconi ve Ritzen, 2015).

Üniversiteler arasında yapılan bu kıyaslamalar, yükseköğretimde artan rekabete paralel olarak gerek öğrenciler ve aileleri, gerekse akademisyenler, araştırmacılar ve bu konuda politika geliştirenler ile medyanın artan ilgisiyle karşılaşmıştır. Bu sıralamalar, yükseköğretime aday olan öğrenciler ve aileleri tarafından üniversitelerin eğitim kalitesini değerlendirmek ya da gelecekteki kariyer beklentilerine uygunluğu açısından üniversiteleri birbirleriyle karşılaştırıp en uygun seçeneği bulabilmek için kullanılmaktadır. Akademisyenler tarafından ise kendi kariyerleri için ne kadar doğru bir yerde olup olmadıklarını görmek için takip edilmektedir (Çakır, Acartürk, Alaşehir, ve Çilingir, 2015). Politikacılar ve üniversite yöneticileri ülkelerinin yükseköğretim politikalarının belirlenmesinde, kurumlarının dünya üzerindeki ve kendi ülkelerindeki konumlarının değerlendirilmesinde bu sıralamalardan faydalanmaktadır (Bastedo ve Bowman, 2011). Bunların yanı sıra uluslararası sıralamalar, toplumda yükseköğretime artan ilgi nedeniyle medya kuruluşlarının da ilgisini çekmekte, medya kuruluşları tarafından da ülkelerindeki ve dünyadaki yükseköğretim kurumlarının durumu hakkında topluma bilgi vermek için dikkatle izlenmektedir (Alaşehir, Çakır, Acartürk, Baykal ve Akbulut, 2014; Hazelkorn, 2008). Denilebilir ki zaman içerisinde toplumda yükseköğretimle ilgili olan tüm paydaşlar farklı amaçlarla da olsa üniversite sıralamalarını kullanır hale gelmişlerdir (Dill ve Soo, 2005).

Üniversite sıralamalarına olan bu ilgi dünya çapında farklı sıralama sistemlerinin geliştirilmesine neden olmuştur. Bu sıralama sistemlerinin her biri kendi içinde, yayın ve alıntı sayıları, öğrenci/öğretim üyesi oranı, uluslararası öğrencilerin yüzdesi, Nobel ödülü kazanan mezun ya da akademisyenlerin

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sayısı, personel ve öğrenci kalitesi, akademik itibar gibi ölçütler kullanarak kendi yöntemini oluşturmuştur.

Literatürde konuya ilişkin farklı perspektifler sunan güncel çalışmalar mevcut ise de bu sıralama sistemlerini, özellikle ölçütleri bakımından sade ve detaylı bir inceleme ile ele alan ve ülkemizdeki üniversitelerin bu sıralamalardaki yerini gösteren bir çalışmanın olmaması bu makalenin motivasyon kaynağı olmuştur. Bu çalışma, sıralama sistemlerinin amacını ve önemini, ilgili yazın dâhilinde inceleyerek başlamıştır. Ardından, ülkemizde geliştirilmiş uluslararası bir sıralama sistemi olan URAP ile birlikte URAP'ın üniversitelerimizin dünya çapındaki yerini göstermek için kullandığı altı sıralama sistemi, özellikle ölçütleri açısından incelenmiştir. Bu sıralamalarda üniversitelerimizin konumu üzerinde durulmuş ve konuyla ilgili özellikle iki husus dikkate değer bulunmuştur: Bunlardan ilki, her bir sıralama sistemi kendine özgü bir ölçüt seti kullansa da akademik yayınlar, dergi kalitesi endeksi, atıf dizinleri, akademisyenlerin aldıkları ödüller, konferanslarda sunulan makale ve rapor sayıları gibi önemli unsurları içine alan “araştırma performansı” kavramının birçok mevcut sıralama sisteminin belkemiğini oluşturduğudur (Bazeley, 2010; Burke, Fender, ve Taylor, 2007; Cheng, Wang, ve Liu, 2014; Çakır ve ark., 2015). İkincisi ise bu sıralamalarda Türk üniversitelerinin genel durumunun çok iç açıcı olmamasıdır. Yapılan bu çalışmayla dünya sıralama sistemlerinin yöntemlerini daha iyi anlamak ve aktarmak, üniversitelerimizin konumunu açık bir şekilde ortaya koymak ve bu sıralamalarda içinde bulunduğumuz konumun iyileştirilmesine olan ihtiyacının gerekliliği konusunda farkındalık oluşturmak hedeflenmiştir.

Üniversite Sıralama Sistemleri. Yükseköğretim kurumları arasındaki artan rekabet üniversiteleri farklı ve etkili rekabet stratejileri aramaya teşvik etmiştir. Rekabetin günden güne arttığı yükseköğretim alanında, sıralama sistemleri üniversite yöneticileri için güvenilir bir pazarlama aracı haline gelmiştir (Hossler, 2000; Hunter, 1995). Bu sıralama sistemleri başlangıçta akademisyenleri ve devlet görevlilerini, üniversitelerin çıktılarını hakkında bilgilendirmek amacıyla ortaya çıktıysa da (Stuart, 1995), ilerleyen zamanlarda, yükseköğretim alanına öğrenci çekmek, mezun başlıklarını arttırmak, kaliteli fakülte elemanlarını ve yöneticileri işe almak gibi daha farklı amaçlar için kullanılabilir hale gelmiştir (Machung, 1998). Jesens'ek (2006) çalışmasında sıralama sistemlerini, öğrencilerin seçim kararını etkileyen, uluslararası yükseköğretim pazarını yönlendiren, üniversiteleri uluslararası alanda tanıtan ve yükseköğretim alanında rekabeti yönlendiren önemli bir araç olarak tanımlamıştır. Lukman ve Glavič (2009) ve Hazelkorn (2008) bu konudaki araştırmalarında, sıralama tablolarının, yükseköğretim kurumlarının kalitesi hakkında bilgi verdiğini, öğrencilerin üniversite seçim kararlarını etkileyen önemli bir unsur olduğunu söylemişler ve aday öğrencilerin seçim süreçlerinde bu sıralama tablolarına başvurduklarını belirtmişlerdir. Hazelkorn (2008) çalışmasında, işverenlerin ve endüstri paydaşlarının işe alım süreçlerinde ve

üniversitelere yapacakları mali desteklerin karar verme süreçlerinde bu tabloların etkili olduğunu söylemiştir. Eğitim kalitesini ölçen bir araç olarak görülen (Hanushek ve Woessmann, 2012) bu sıralamaların önemli olmasının bir başka nedeni de öğrencilerin sadece ulusal düzeyde değil, uluslararası düzeyde de tercihlerini etkiliyor olmasıdır (Dichev, 1999; Marconi, 2013; Monks ve Ehrenberg, 1999; Sauder ve Lancaster, 2006).

Kısaca denilebilir ki, günümüzde uluslararası sıralama sistemleri, öğretim üyeleri, üniversite yöneticileri, politikacılar ile öğrenciler ve aileleri tarafından kullanılan önemli bir değerlendirme aracı olarak kabul edilmektedir. Sıralama tabloları, fakülteler tarafından verimliliği arttırmak, iyi öğrenci ve öğretim görevlisi çekebilmek, ulusal ve uluslararası alanda kendilerini en iyi şekilde konumlandırmak; öğrenciler ve aileleri tarafından ise üniversite seçimi sürecinde kendilerine en uygun ve kariyerleri için en iyi olabilecek seçimi yapabilmek için kullanılmışlardır. Sıralamalar, hem üniversitelerin hesap verebilirliğinin sağlanması hem de öğrencilere ve akademisyenlere kalitedeki ölçülebilir farklılıklar hakkında bilgi sağlama açısından yararlı görülmüş; yükseköğretim kurumları için de daha iyiye gitme gerekliliği hususunda teşvik niteliğinde olmuştur (Dill ve Soo, 2005; Gormley ve Weimer, 1999).

Tüm bu sebeplerden dolayı, üniversite sıralamaları birçok insanın ilgisini çekmiş ve tüm dünyada önem kazanmıştır. Bu da farklı yöntemlerle derecelendirme yapan birçok sistemin geliştirilmesine yol açmıştır. Bu makalede, dünyada kabul gören, ülkemizde geliştirilmiş bir sıralama sistemi olan URAP ve onun üniversitemizin dünyadaki konumunu belirlemek için kullandığı aşağıda sıralanan uluslararası sistemler, kendi sitelerinden faydalanılarak ayrıntılı olarak incelenmiştir.

a. Şangay Sıralaması olarak bilinen “The Academic Ranking of World Universities (ARWU)”, Shanghai Jiaotong Üniversitesi bünyesinde 2003 yılından bu yana yıllık olarak dünya çapındaki en iyi 500 üniversitenin sıralamasını hazırlamaktadır. Bu alandaki ilk sıralamayı yapan Shanghai Üniversitesi, başlangıçta sadece Çin üniversiteleri ile dünyanın önde gelen üniversiteleri arasında bir karşılaştırma yapmayı amaçlamış, ancak uyguladıkları tutarlı ve açık metotlar sayesinde bu alanda en fazla takdir gören kurumlardan biri haline gelmiştir. Nobel Ödülü ve ilgili alanlarda madalya kazanan fakülte çalışan sayısı; Nobel Ödülü ve ilgili alanlarda madalya kazanan mezun sayısı; 21 farklı alanda yüksek sayıda atıfta bulunan araştırmacı sayısı; “Nature and Science” dergilerinde yayımlanan makale sayısı; “Science Citation Index-Expanded, Social Science Citation Index” dergilerinde yayımlanan makale sayısı; yukarıdaki her bir kıstasın üniversitede tam zamanlı çalışan akademik personele oranı ile ortaya çıkarılan üniversitenin kişi başına düşen akademik performansı, bu sıralama sisteminin ölçütlerini oluşturmaktadır.

b. Tayvan’da bulunan “Higher Education Evaluation and Accreditation Council (HEETA)” dünyadaki bir diğer önemli sıralama sistemidir. Tayvan

Yüksek Öğrenim Değerlendirme ve Akreditasyon Konseyi, 2007 yılından beri dünyada en iyi 500 üniversitenin sıralamasını yayınlamaktadır. 2012'de bu sıralama “National Taiwan University (NTU)” olarak yeniden adlandırılmıştır. Ulusal Tayvan Üniversitesi sıralamasının temel göstergeleri üç kategoride ele alınır ve NTU verilerin hepsini Science Citation Index (SCI), Social Science Citation Index (SSCI) kapsamındaki yayınlardan elde eder. İlk kategoride, araştırma verimliliği başlığı altında son 11 yılda yayınlanan makale sayısı ve son bir yılda yayınlanmış makale sayısı olmak üzere iki gösterge söz konusudur. İkinci kategoride, araştırma etkisi başlığı altında, son 11 yıl içindeki alıntı sayısı, son 2 yıl içindeki alıntı sayısı ve son 11 yıl içindeki ortalama atıf sayısı olmak üzere üç ölçüt söz konusudur. Araştırma mükemmelliği başlığı altında ise son iki yıl içindeki h-indeksi, son 11 yıl içinde üst seviyede atıf alan makale sayısı ve ilgili yıl içinde yüksek etki statüsünde bulunan dergilerde yayınlanan makale sayısı hesaplanmaktadır.

c. Hollanda'da Leiden Üniversitesi Bilim ve Teknoloji Çalışmaları Merkezi 2007 yılından bu yana dünya sıralaması yapıyor. LEIDEN, etki ve işbirliği adı verilen iki geniş kategori altında gruplandırılmış bireysel ölçütlere dayalı metodolojisinde, birden fazla sıralama tablosu sunarak, kriterlerden elde edilen puanlara dayalı tek bir liste yapmak yerine her bir ölçüt için ayrı ayrı tablolar vermektedir. Kurum, 500 üniversiteyi sıralarken son 5 yıla ait “Web of Science” endeksine dayalı olarak, SCI ve SSCI tarafından taranan yayın sayısı (P), yayın başına düşen atıf sayısı (MCS), standartlaştırılmış yayın başına düşen atıf sayısı (MNCS), dünyada en çok atıf alan %10'luk dilime giren yayın oranı (PP top 10%) ve diğer üniversitelerle üretilen ortak yayınların oranı (PP Collab.) ölçütlerini kullanır.

d. Dünyada öğrenciler, akademisyenler ve konuyla ilgili politikacılar tarafından geniş bir şekilde referans alınan diğer bir önemli sıralama sistemi Quacquarelli Symonds tarafından hazırlanan “QS World University Rankings” 'dir. İlk kez 2004'te yayınlanan, altı temel performans göstergesine dayanan bu sistem 2016'da dünyanın önde gelen 900 üniversitesini bu sıralamaya dâhil ederek farklı kategorilerde değerlendirmiştir. Bu sıralamada üniversitelerin yerleri, araştırma, öğretim, istihdam edilebilirlik ve uluslararasılaşma başlıkları altında, “akademik itibar, üniversitenin itibarı konusunda işveren görüşü, öğretim üyesi/öğrenci oranı, Scopus'un verileri kullanılarak hesaplanan öğretim üyesi başına düşen atıf sayısı, üniversitedeki yabancı öğrenci ve yabancı öğretim üyesi oranı” ölçütleri kullanılarak belirlenmektedir.

e. Beşinci olarak, “SCImago Institutions Rankings (SIR)” incelenmiştir. İspanya merkezli araştırma kurumu SCImago Research Group tarafından geliştirilen SCImago Enstitüleri Sıralaması, 2009'dan bu yana yayınlanmakta olup üç temel gösterge kümesini birleştiren bir yöntem kullanmıştır. Göstergelerden ilki araştırma performansı olup bu ölçüt, Scopus'ta endekslenen bilimsel dergilerde yayınlanan toplam doküman sayısı, ülkelerarası ortak yayın

sayısı, standartlaştırılmış yayın başına atıf sayısı, etki değeri en yüksek dilime giren dergilerdeki makale oranı, bilimsel mükemmellik, bilimsel liderlik, bilimsel liderlik mükemmelliği ve bilimsel yetenek havuzu adı altında sekiz faktör temel alınarak hesaplanmaktadır. İkincisi, yenilik göstergesi olup bu gösterge, yenilikçi bilgi ve teknolojik etki faktörleriyle açıklanmaktadır. Üçüncüsü ise toplumsal etki göstergesi olup, kurumun internetteki görünürlüğü ile ilgili bir bileşen olarak karşımıza çıkmaktadır. Bu sıralama kuruluşu, tüm bu ölçütlerden elde edilen puanlara dayalı tek bir liste yapmakta ve bu liste yıllara ve coğrafi bölgelere göre dünyadaki en iyi 500 üniversiteyi sıralamaktadır.

f. Politikacılar, üniversiteler, akademisyenler ve öğrenciler tarafından dikkatle izlenen diğer bir önemli sıralama ise “Times Higher Education World University Rankings” yani Times Yüksek Öğretim Dünya Üniversiteleri Sıralamasıdır. Dünyanın en iyi üniversitelerini belirlemek için 2004 yılında kurulan THE, metodolojisinde, “araştırma, öğretim, alıntılar, uluslararası görünüm ve endüstri geliri” başlıkları altında toplanan beş temel göstergeyi kullanmıştır. Tüm sıralama tabloları ülkeye ve performansın beş ana alanından herhangi birine göre filtrelenebilir. Sıralamanın göstergelerinden öğretim, “itibar anketi, öğretim görevlisi-öğrenci oranı, doktora öğrencisi-lisans öğrencisi oranı, doktora öğrencilerinin akademik personele oranı ve kurumsal gelir” şeklinde beş faktöre dayanarak hesaplanır. İkinci gösterge olarak araştırma, “itibar anketi, araştırma gelirleri ve araştırma verimliliği” faktörlerini kullanır. Üçüncü gösterge üniversitenin yayınlarının aldığı atıflardır. Dördüncü gösterge olan uluslararası görünüm ise uluslararası öğrencinin yurtiçi öğrenciye oranı, uluslararası personelin ulusal personele oranı ve uluslararası işbirlikleri dikkate alınarak hesaplanır. Son olarak sanayi geliri göstergesi ise üniversitelerin bilgi aktarım yeteneği ile ilgilidir. Bir kurumun aldığı araştırma geliri ile endüstriye kazandırdığı değeri satın alma gücü paritesi ve akademisyen sayısını dikkate alarak değerlendiren bir ölçüttür.

g. 2009 yılında Orta Doğu Teknik Üniversitesi Enformatik Enstitüsü bünyesinde kurulan “University Ranking by Academic Performance (URAP)”, 2010 yılından bu yana sıralama yapmaktadır. Yukarıda adı geçen diğer önemli kurumlar gibi bu sıralama sistemi de akademik performansı temel olarak metodolojisini geliştirmiştir. URAP’ın sisteminde, son yıl SCI, SSCI ve AHCI tarafından taranan makale sayısı, son 5 yılda yayınlanan toplam bilimsel doküman sayısı, son 5 yılda yayınlanan makalelere son yıl verilen atıf sayısı, son 5 yılda yayınlanan makale sayılarının basıldıkları dergilerin etki faktörleri ile çarpımlarının toplamı, son 5 yılda yayınlanan makalelere son yılda gelen atıf sayılarının atıf yapan makalelerin dergilerinin etki faktörleri ile çarpımlarının toplamı ve son 5 yılda ülkelerarası ortak yayın sayısı ile elde edilecek olan puanlara göre üniversiteler değerlendirilmekte ve sıralanmaktadır.

Tartışmalar, Sonuç ve Öneriler. Yıllar içerisinde Türk yükseköğretim alanında yaşanan sayısal genişleme dikkate değer bir unsur olarak karşımıza çıkmaktadır

(Çetinsaya, 2014; Konur, 2011). 1987'de 1 vakıf, 28 devlet üniversitesi olan ülkemizde, üniversite sayısının, 2000 yılında 73'e, ardından 15 yıl içerisinde bu sayının daha büyük bir ivmeyle, 2015 yılında 192'ye yükselmiş olması bu niceliksel gelişiminin açık bir göstergesidir. 2016 yılında vakıf üniversitelerinden 15'inin, 15 Temmuz darbe girişimi ile olan bağlantıları dolayısıyla kapatılması sonucu üniversitelerin sayısının 177'e düşmesini olağandışı bir durumun sonucu olarak göz ardı edilirse, 1990'lardan bu yana her yıl artış gösteren üniversite sayısı yükseköğretim alanımızdaki sayısal genişlemenin önemli bir kanıtı niteliğindedir. Aynı niceliksel artış öğrenci sayıları ve öğretim görevlisi sayılarında da kendini göstermektedir. 1987'de yükseköğretime kaydolun öğrenci sayısı 502.380 iken, bu sayı 2016'da 6.689.185'e ulaşmıştır. 1987'de öğretim elemanı sayısı 24.382 iken, 2016'da bu sayı 156.168'e yükselmiştir.

Sadece Türkiye'de değil, tüm dünyada yükseköğretimde geniş çaplı bir genişlemeden söz etmek mümkündür (Schofer ve Meyer, 2005). Bu genişleme, yükseköğretim alanının rekabetçi ve her geçen gün büyüyen bir saha haline gelmesi şeklinde değerlendirilebilir. Yükseköğretime artan talep beraberinde arzı da doğurmuş, bu talep arz dengesi sadece herkesin kendi ülkesi ile sınırlı kalmamış uluslararası boyuta da taşınmıştır. Tüm bunların etkisiyle daha karmaşık bir hal alan bu sahada, yükseköğretim kurumlarını birbirinden ayırmaya ve değerlendirmeye yönelik (Dill ve Soo 2005) farklı uluslararası üniversite sıralama sistemleri geliştirilmeye başlanmıştır. Bu sıralama sistemlerinin, yükseköğretimin paydaşları olarak görülen, öğrenciler ve aileleri, akademisyenler, üniversite yöneticileri ve çalışanları ile devlet kurumlarında bu konuda politika üreten insanlar için önemi birçok çalışmada vurgulanmıştır. Bowman ve Bastedo (2011) sıralama sistemlerinin öğrencilerin ve ailelerinin karar verme süreci üzerinde güçlü etkisinden ve yükseköğretim kurumlarının misyon ve stratejilerini etkileyen önemli bir faktör olduğundan söz etmiştir. Salmi ve Saroyan (2007) ve Sponsler (2009) çalışmalarında, üniversite sıralamalarının, devlet kurumları tarafından, yükseköğretim kurumlarının performansını değerlendirmek için bir araç olarak kullanıldığı üzerinde durulmuştur. Ayrıca, uluslararası kabul görmüş bu sıralama sistemlerinde, adları üst sıralarda geçen üniversitelerin sadece kendilerini duyurmakla kalmadıkları aynı zamanda ülkelerinin yükseköğretim alanındaki saygınlığına da büyük katkı sağladıkları gözden kaçmamaları gereken bir husustur (Jesensek, 2006; Li, Shankar ve Tang, 2011).

Makalemizde adı geçen yedi sıralama sisteminde ilk 500 de sadece 11 üniversitemiz (İstanbul Üniversitesi, Ankara Üniversitesi, Orta Doğu Teknik Üniversitesi, Hacettepe Üniversitesi, Gazi Üniversitesi, Ege Üniversitesi, Bilkent Üniversitesi, İstanbul Teknik Üniversitesi, Boğaziçi Üniversitesi Sabancı Üniversitesi ve Koç Üniversitesi) bulunmakta, bu 11 üniversitemiz de genel olarak kendilerine 400-500 aralığında yer bulmaktadır. Çalışmamızda, bu sıralamaların ölçütleri detaylı olarak incelendiğinde hesaplama yöntemlerindeki temel ölçütün "araştırma performansı" olduğunu vurgulamıştık. Bu

sıralamalarda ilk 500 de yer alan 5 Türk üniversitesinin (İstanbul Üniversitesi, Ankara Üniversitesi, Hacettepe Üniversitesi, Gazi Üniversitesi, Ege Üniversitesi ve Koç Üniversitesi) tıp fakültesinin olduğu altı çizilmesi gereken bir husustur. Tıp fakültelerindeki akademik yayın mecburiyeti düşünüldüğünde, tıp fakültesi olmayan sadece 6 üniversitemizin bu sıralamalarda yer alması, üniversitemizin bu sıralamalardaki konumunu biraz daha dikkate değer bir hale getirmektedir. Buradan çıkarılacak olan sonuç, üniversitemizin uluslararası sıralama sistemlerinde kendilerini göstermek ve daha üst sıralarda ülkemizi temsil edebilmek için “araştırma performansı” konusuna eğilmeleri ve bu konuda kendilerini geliştirmelerinin gerekliliğidir. Makalede verilen tablolar incelendiğinde, özellikle ARWU ve NTU'daki düşük performansımız, bu sıralamaların metodolojinde araştırma performansının önemi ve metodolojisinin göreceli daha zor sayılabilecek SSCI indeksine dayalı olması, yine bu savımızı destekler niteliktedir.

Sıralama sistemlerinin yöntemleri üzerine çok sayıda tartışma olsa bile bunların üniversiteleri birbirleriyle karşılaştırmak ve değerlendirmek için önemli bir girişim olduğu hiçbir araştırmacının ret etmediği bir gerçek olarak karşımıza çıkmaktadır. Bu çalışma, yükseköğretim kurumlarını uluslararası düzeyde değerlendirmeyi amaç edinen bu önemli araca dikkat çekmeyi ve üniversitemizin bu sıralamadaki genel konumunu gözler önüne sermeyi hedeflemiştir. Bunun için makalemizde ilk olarak, dünyadaki sıralama sistemlerine dikkat çekilmek istenmiş, bunların amaçları ve önemi üzerine bir yazın taraması sunulmuştur. Ardından, ülkemizde geliştirilen uluslararası bir sıralama sistemi olan URAP'ın raporlarında adı geçen URAP'da dâhil olmak üzere yedi sıralama sistemi özellikle yöntemleri açısından incelenmiştir. Bu inceleme sonucunda, tüm bu sıralamaların kullandığı en önemli ölçütün “araştırma performansı” olduğunu gözlemlenmiştir. Sonra, bu yedi uluslararası sıralama sisteminin son altı yılı kapsayan verilerinde ilk 500'de yer alan Türk üniversitelerinin yerleri tespit edilip üniversitemizin bu tablolarda pek de imrenilecek bir konumda olmadığı ortaya konulmuştur. Böylece bu çalışma ile yükseköğretim alanımızda son yıllarda gösterdiğimiz yukarıda bahsi geçen niceliksel gelişmelerin birçok perspektifte önemini kabul ettiğimiz uluslararası sıralamalarda henüz kendini gösteremediği gözlemlenmiş ve bu durumun iyileşmesi için üniversitemizin “araştırma performansı” konusunda kendilerini geliştirmeleri gerektiği sonucuna varılmıştır. Bundan sonraki araştırmamız, dikkate değer tüm uluslararası üniversite sıralama sistemlerinin metodlarında en önemli ölçüt olarak karşımıza çıkan “araştırma performansı” kavramı üzerine olacaktır. Bu kavramın içeriğini, onu etkileyen faktörleri anlamının ve bunlara dikkat çekmenin, üniversitemize gelecekte uluslararası yükseköğretim arenasında daha iyi yer edinebilmeleri için bir motivasyon kaynağı oluşturacağı kanısındayız.

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