A Performance Assessment Model Recommended for Higher Education System in Turkey and a Case Study[*]

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There are so many university ranking systems for academic performance as based on different criteria in the world. These systems, which have been considered since beginning of 2000's years, have quickly followed with their own hierarchical measures by higher education organizations. This paper mentions the main principles of a new system for university performance in Turkey and summarizes the study, which was made for the performance of selected universities throughout country. The system depends on teaching income, teaching structure, teaching quality, number of publications and projects, the index for entrepreneurial and innovative university, and student satisfaction. The aim is to provide a comparative study with well-balanced and justice decision for the related universities. This study includes the 10 universities (Anadolu, Çukurova, Cumhuriyet, Dicle, Erciyes, Fırat, İnönü, Ondokuz Mayıs, Selçuk, and Uludağ) which were founded between 1973 and 1978. In this study, data belonging to the period of 2010 and 2014 have been considered for the related universities. This study indicates that enlargement rate, localization, politicization, and degradation on management system influence the performance of universities.

Keywords: academic performance, teaching, higher education, ranking system, university

Introduction

Universities in developed countries, rather than the institutions that carry out classical education and training services, mostly transform to the research organizations integrated with the industry and producing information (Organization for Economic Co-operation and Development [OECD], 2013). Universities in relevant countries are supported by the governments in order to transform and accelerate transformation, which is considered as a strategic change. It should be noted that state support for North American universities is largely towards research and development projects. It has been stated that should be followed in detail how the results are reflected in society (Noll, 1998; Rowley & Sherman, 2001). Meyerson (1998) emphasized that this change must be completed in absolute terms and stated that it could be a model for some developed and developing countries. Winston (1998) stated that the transformation in universities must be ensured and that higher education institutions must not be managed like a company and underlined that certain balances within the institution must be absolutely protected. For this reason, in order to make the universities more effective and productive, studies have been carried out and methods have been proposed which include specific evaluation criteria (Graduate Record Examinations [GRE], 1977; Liefner, 2003; Institute for Higher Education

Policy [IHEP], 2007).

The first institutional structure related to the university with the Western sense in Turkey was established in the year of Sultan Abdul Hamid in 1900. This higher education institution, called Daru'l-Funun, was closed in 1933 and the University of Istanbul was established. The number of universities increased in the years 1940 and 1950, and since 1981, it has started to be governed by a central administration and administration in the sense of the Law No. 2547 on Higher Education. In 2000's years, the management models were evaluated by comparing the higher education systems in the world and our country (Doğramacı, 2000; 2007) and the higher education strategy of the country was established (Council of Higher Education [YOK], 2007). At the first half of the year 2010, the country's higher education system was discussed with wide participation and the system was made important evaluations about the quality and growth (YOK, 2011; Çetinsaya, 2014).

Currently, there are some ranking systems for the world universities based on academic performances, which determined by quality and quantity of scholarly publications. These methods, which have been implemented since the first half of 2000's years, adapted to an important criterion for questioning position of universities with time. Times and QS in United Kingdom, ARWU-Jiao Tong in China, Leiden in Nederland, and SCImago in Spain are some of the evaluation systems that are internationally renowned. These systems are based on reliable sources, such as Scopus, Web of Science, and Google Scholar. In Turkey, University Ranking by Academic Performance (URAP) ranking system developed by Middle East Technical University globally measures universities according to academic performance (URAP, 2013).

In the context of this study, an assessment technique, which depends to six separate parameters, was used. The parameters of this specific assessment technique are teaching income, teaching structure, teaching quality, number of publications and projects, the index for entrepreneurial and innovative university, and student satisfaction. The technique provides data for well-balanced and justice decision for universities in Turkey. Summation of scores belonging to each parameter gives total score for the related university to obtain its place in the ranking system of higher education system in Turkey. In addition to this, the technique also provides a ranking for each parameter (Tosun, 2015). It has been developed for only state universities in Turkey.

Literature Survey

In general, performance appraisal can be classified into two groups as traditional and modern methods (Aggarwal & Thakur, 2013). Traditional methods are older methods for performance appraisal which concentrated only on the past performance. There are the topical traditional methods used in the past: (1) ranking method; (2) graphical rating scales; (3) critical incident method; and (4) narrative essay method. Ranking methods are based on merit from best to worst. However, this method never considers how best and why best (Dessler, 2011). In graphic rating scales, there is a scale that lists a number of traits and a range of performance for each. The candidates are then graded by finding the score that best defines their level of performance for each trait (Bracken, Timmreck, & Church, 2001). The critical behaviors of candidate that make significant difference in the performance are considered for critical incident method (Dessler, 2011). In the narrative essay method, administrator relieves candidate's strength and weakness points for improvement at the end of evaluation time. This method, which primarily attempts to concentrate on behavior, takes into account evaluation criterion, such as overall impression of performance, existing capabilities and qualifications, previous performance and suggestions by others, etc. (Jafari, Bourouni, & Amiri, 2009).

Modern methods were introduced to improve the conventional methods. They consider the shortcomings

of the old methods, such as biasness and subjectivity. The typical modern methods are generally categorized into six groups: (1) management by objectives (MBO); (2) behaviorally anchored rating scales (BARS); (3) humans resource accounting (HRA); (4) assessment centre; (5) 360 degree; and (6) 720 degree. In MBO, which includes three main processes: object formulation, execution process, and performance feedback, the performance is graded against the achievement of the objectives specified by the management. It generally consists of several components (Wu, 2005).

The BARS method considers contrast on an individual's performance against specific examples of behavior that are anchored to numerical ratings. In HRA method, the performance is judged in terms of cost and contribution of the individuals or organizations. The assessment center method concentrates on observation of behaviors across a series of select exercises or work samples. Shaoutand and Yousif (2014) stated that an assessment center is a central location where managers may come together to have their participation in job related exercises evaluated by trained observers. Last two methods provide people with information about the influence of their action on others (Jafari et al., 2009; Mondy, 2008).

In addition to traditional and modern methods mentioned above, there are some various fuzzy hybrid techniques to execute performance appraisal for individuals or organizations (Laarheven & Pedrycz, 1983). This paper summarizes the main principles of the specific method introduced for evaluating the universities in Turkey and introduces the result of a study, which was executed on performance of older 10 universities of Turkey by means of a specific assessment model recommended for higher education system. The model is based on methods of ranking and graphical rating scales. It includes the studies, which were done along 12 years (Tosun, 2004; 2011; 2006; 2015; 2016).

Model Principles

In the context of this study, an assessment technique, which depends to six separate parameters, was used. The parameters of this specific assessment technique are explained below:

Teaching Income

State universities in Turkey provide a significant portion of their income from the central government budget. In other words, the Council of Higher Education, which is the roof institution of the higher education system throughout country, is considered as a special budgeted administration on the Chart II and budget state universities, which fall under this heading. The university budget on the basis of economic classification in the chart is classified into five main titles as personnel expenses, social security state premiums, goods and service purchasing expenses, current transfers, and capital expenditures. Total of these five items constitute the university's portion from the central government budget for one year. In addition, the Chart II also gives estimated self-income including special revenues. Teaching income is considered as a separate parameter in the model and the Teaching Income Score (TIS) is calculated.

Teaching Structure

The structure of teaching in the modern university system is categorized into undergraduate and graduate levels. Undergraduate level includes two-year and four-year programs. The expression "teaching structure", which is taken into account in this evaluation method, means at which university intensifies degree of level or levels. For this purpose, four different evaluation criteria are defined and the Teaching Structure Score (TSS) is calculated taking into account the influence factor values of each evaluation criteria (Tosun, 2015). The great

value of Teaching Structure Score means the university where graduate education is major. Otherwise, undergraduate level including two-year programs is predominant.

Teaching Quality

The quality of teaching in higher education institutions in developed countries is generally assessed by the number of students per faculty member and per research assistant. However, locality on research, education, and social per student is also related to the quality of education of universities. In this study, six different criteria are defined in order to determine the quality of teaching of universities and the Academic Quality Score (AQS) is calculated for each university based on the relevant criteria and taking into consideration the influence factors (Tosun, 2004; 2015).

Publication Efficiency

One of the basic functions of the universities is to conduct scientific research. Especially since the end of the 20th century, the transition to information society as a result of social change has shown that universities need to be more effective and efficient in this field. The data used in this study were collected on the basis of the whole document using "Thomson Reuters—Web of Science Database" (Scientific and Technological Research Council of Turkey [TÜBİTAK], 2013a). For this study, scientific efficiency was taken into account as a basic parameter, which mainly depends to unit number of publication and citation, which are scanned by international indexes (Sciences Citation Index [SCI[, Social Sciences Citation Index [SSCI], and Arts & Humanities Citation Index [AHCI]) and then the Publication Efficiency Score (PES) is determined (Tosun, 2004; 2015).

Project Yield

Universities in developed countries produce projects in different scopes and seek support for these projects to use facilities central and local governments, public and private sector institutions and gain the culture on research and development, innovation and entrepreneurship. In the field of intellectual property rights which arise at the end of this type of projects, they also use the right to patent and utility model registration. Within the scope of this study, project numbers and budgets supported by the Scientific and Technological Research Council of Turkey (TÜBİTAK) and the General Directorate of Science and Technology of the Ministry of Science, Industry and Technology (SAN-TEZ) with serious evaluation criteria were evaluated and then calculated the Project Yield Score (PYS) as based on the impact factor value of each evaluation criteria in the field of project yield.

Entrepreneur-Innovation and Student Satisfaction

An index on entrepreneur and innovative university has been started in 2011 as considering 23 indicators in the leadership of TÜBİTAK. This index which was depended on the basis of universities' scientific and technological research competence, intellectual property activity, cooperation and interaction activity, economic contribution, and commercialization potential is calculated for each university and the scores of the universities in the first 50 are announced. Student satisfaction was taken into consideration with preference rate of the university in this study. For this study, a new parameter is defined as based on the above-mentioned index and student satisfaction, and then the score of parameter on Entrepreneur-Innovation and Preference Score (EIPS) is calculated.

Summation of scores belonging to each parameter gives total score for the related university to obtain its

place in the ranking system of higher education system in Turkey (Equation 1). The evaluation was based on a total score of 1,000 and the score for each parameter is given below.

$$TPS = TIS + TSS + AQS + PES + PYS + EIPS \qquad (1)$$

in which

TPS = Total Performance Score (1,000 points)

TIS = Teaching Income Score (100 points)

TSS = Teaching Structure Score (100 points)

AQS = Academic Quality Score (200 points)

PES = Publication Efficiency Score (250 points)

PYS = Project Yield Score (250 points)

EIPS = Entrepreneur-Innovation and Preference Score (100 points)

In addition to this, the technique also ranks state universities for each parameter (Tosun, 2015). The technique provides data for well-balanced and justice decision for universities in Turkey. It has been developed for only the state universities throughout country.

Case Study

Human Sources for Universities

In this section, the human resources (numbers of faculty and student and administrative staff) of 10 state universities considered for this study are given in Table 1 for 2010, 2011, 2012, and 2013. In the previous detailed study, the number of undergraduate and graduate students was given separately for each university (Tosun, 2015). However, in this study, the evaluation was made taking into consideration the total number of students. The related values, which were taken from the information system of the Council of Higher Education (YOK), are not included in students of Anadolu University's Open Education Faculty. The total number of students in 10 universities included in the scope of the study for 2010, 2011, 2012, and 2013 were determined as 326,122, 344,073, 390,615, and 415,284, respectively. As can be seen from Table 1, the highest number of students belongs to Selçuk University and then Uludağ University. During the working period, the student numbers of Selçuk and Uludağ Universities are in the range of 73,801-82,775 and 41,451-52,076, respectively. The lowest number of students belongs to Dicle University. For this university, the number of students for working period ranges from 17,715 to 27,430, respectively. İnönü University has similar student numbers like those of Dicle University.

Tosun (2015) evaluated number of faculty for four working years in detail. The number of professor, associate professor, assistant professor, lecturer, research assistant, and expert has been given separately for each university in the related study. In this study, the number of faculty consisting of all of these is taken into account. For 10 universities included in the context of this study, the total number of faculty for 2010, 2011, 2012, and 2013 are 16,486, 17,846, 18,729, and 18,138, respectively. On average, the largest number of teaching staff (2,944) belongs to Selçuk University as being in number of students. The lowest number of teaching staff (1,217) belongs to İnönü University.

Table 1

Human Sources of Universities for 2010, 2011, 2012, and 2013

#	University	Province	Established year	Working year	Number of student	Number of faculty	Number of staff
1	Anadolu	Eskişehir	1973	2010	26,652	1,780	-
				2011	28,149	1,838	1,793
				2012	31,618	1,958	1,806
				2013	32,385	2,068	1,875
				average	29,701	1,911	1,825
2	Cumhuriyet	Sivas	1974	2010	27,047	1,415	-
				2011	30,405	1,410	1,505
				2012	34,447	1,472	1,487
				2013	39,234	1,509	1,654
				average	32,783	1,452	1,547
3	Çukurova	Adana	1973	2010	34,901	1,899	-
				2011	36,025	1,720	2,347
				2012	40,709	1,599	2,323
				2013	44,434	1,667	2,313
				average	39,017	1,721	2,328
4	Dicle	Diyarbakır	1973	2010	17,715	1,376	-
				2011	19,768	1,540	1,505
				2012	23,210	1,270	1,821
				2013	27,430	1,270	1,914
				average	22,031	1,364	1,747
5	Erciyes	Kayseri	1978	2010	32,206	1,484	-
				2011	35,385	1,490	2,904
				2012	40,829	2,054	2,119
				2013	45,459	2,230	2,805
				average	38,470	1,815	2,609
6	Fırat	Elazığ	1975	2010	23,659	1,468	-
				2011	25,367	1,449	1,326
				2012	29,254	1,496	1,382
				2013	32,258	1,578	1,440
				average	27,635	1,498	1,382
7	İnönü	Malatya	1975	2010	18,750	1,091	-
				2011	20,460	1,089	1,791
				2012	24,216	1,301	1,833
				2013	28,684	1,385	1,940
				average	23,028	1,217	1,855
8	Ondokuz Mayıs	Samsun	1975	2010	25,462	1,660	-
				2011	29,204	1,670	2,085
				2012	34,849	1,728	2,160
				2013	39,523	1,385	2,135
				average	32,260	1,611	2,127
9	Selçuk	Konya	1975	2010	78,279	1,979	-
				2011	75,603	3,427	1,881
				2012	82,775	3,633	1,220
				2013	73,801	2,735	1,315
				average	77,615	2,944	1,472

				2010	41,451	2,334	-
				2011	43,707	2,213	2,324
10	Uludağ	Bursa	1975	2012	48,708	2,218	2,305
				2013	52,076	2,331	2,333
				average	46,486	2,274	2,327

The staff in the university system in our country is appointed according to the Law No. 657 on the civil servants and not in accordance with the Law No. 2547 on Higher Education. In this study, total numbers of staff were taken into account for each university. This information was obtained from the information system of YOK. However, the data for 2010 could not be reached. For 10 universities included in the study, the total number of staff for 2011, 2012, and 2013 is 17,737, 16,151, and 17,391, respectively. On average, the largest number of personnel (2,609) belongs to Erciyes University and the lowest number of administrative staff (1,382) belongs to Fırat University. Selçuk University, which has the largest number of students and faculty, has a very low number of staff (1,472).

Data for Evaluation Criteria

The unit values on publication, citation, patent, utility model and accredited project, entrepreneurship-innovation index, and the preference rate for student satisfaction are considered as data of the universities to be used in determining the performance evaluation criteria. Relevant data from universities are presented in Table 2. Scientific proficiency of faculties in universities is evaluated as based on publications. The total number of publications of 10 universities considered in the study for 2010, 2011, 2012, and 2013 are 5,521, 5,529, 6,175, and 6,098, respectively. The highest number of publications in this area belongs to Selçuk and Erciyes Universities over the years. The lowest number of publications was for Cumhuriyet and İnönü Universities (see Table 2). The number of citations of the universities in the relevant years is also variable. Total citation number, as end of 2013, has consisted of 22,900, 16,115, 12,124, and 2,548 for 2010, 2011, 2012, and 2013, respectively. The above-mentioned universities are also on the front line in term of citation number.

In this study, projects supported by two institutions with well-defined evaluation criteria were taken into consideration (BSTB, 2013; TÜBİTAK, 2013b). The total number of accredited projects for 10 universities in 2010, 2011, 2012, and 2013 are 181, 166, 132, and 211, respectively. Within this scope, the largest number of projects for four years belongs to Selçuk University with 140 projects and the lowest number of projects belongs to Dicle University with 22 projects (see Table 2). The numbers for utility model and patent are very low during the working years. The total number of patents and utility models received by 10 universities for four years was 44 and 19, respectively. Relevant data have been relatively higher in the last two years (2012 and 2013). Selçuk University and Erciyes Universities are leading due to the numbers of patent and utility model.

In Table 2, the values of EIPS for seven universities participating in the study are given for three separate years. Selçuk and Erciyes Universities are included in the top 50 universities while Cumhuriyet, Dicle, and İnönü Universities are not in the announced list.

For the preference rate in universities, an evaluation was made about the free quota for program that was filled and vacated in the first preferences of National Center on Student Selection and Placement (OSYM). For this purpose, free quota ratios for each university on the basis for undergraduate degree are given in Table 2. Anadolu University in two- and four- year programs has been the most preferred university with the average

rates of 0.0 and 0.8 percent, respectively. Interestingly, Dicle University, which performed poorly in other areas, has relatively high precedence with high preference rates (see Table 2). Selçuk University attracts attention with high empty quota rates in two-year programs.

Table 2

Data for Evaluation Criteria in 2010, 2011, 2012, and 2013

#	University	Working year	Number of publication	Number of citation	Number of patent	Number of utility model	Number of accrediated project	Index for EIU*	Freequata (%) Two-year program	Four-year program
1	Anadolu	2010	349	1,724	0	1	19	-	0.00	0.00
		2011	376	1,022	1	0	12	30	0.00	1.14
		2012	367	721	3	0	13	48	0.00	1.32
		2013	353	172	2	4	22	55	0.00	0.91
		average	361	910	2	1	17	44	0.00	0.85
2	Cumhuriyet	2010	289	1,005	0	0	9	-	30.32	5.24
		2011	356	854	0	0	3	-	17.74	9.10
		2012	444	642	0	0	5	-	18.70	9.72
		2013	460	151	0	0	12	-	30.26	9.60
		average	387	663	0	0	7	-	24.26	8.42
3	Çukurova	2010	652	3,360	0	0	26	-	5.84	2.35
		2011	652	1,564	0	0	24	41	2.14	4.83
		2012	679	3,753	0	0	24	47	1.11	12.09
		2013	691	566	0	0	27	43	4.26	6.67
		average	669	2,311	0	0	25	43	3.33	6.49
4	Dicle	2010	379	1,364	0	0	9	-	0.00	6.57
		2011	442	892	0	0	6	-	0.15	6.62
		2012	536	622	2	0	1	-	0.69	8.32
		2013	569	190	0	0	6	-	3.82	0.95
		average	482	767	1	0	6	-	1.17	5.61
5	Erciyes	2010	820	3,492	1	2	23	-	2.54	3.08
		2011	873	2,880	0	0	11	46	1.12	3.65
		2012	857	1,659	3	3	25	45	1.62	6.67
		2013	920	393	1	0	33	43	3.73	2.57
		average	868	2,106	1	1	23	44	2.25	3.99
6	Fırat	2010	513	2,417	1	0	17	-	12.00	7.84
		2011	580	1,780	0	0	18	29	3.09	8.45
		2012	585	901	0	0	5	33	1.62	15.36
		2013	522	207	0	0	19	30	6.59	12.66
		average	550	1,326	0	0	15	30	5.82	11.08
7	İnönü	2010	312	1,235	0	0	6	-	12.51	4.80
		2011	346	795	0	0	12	-	5.07	10.48
		2012	463	539	1	0	8	-	5.67	17.18
		2013	451	138	0	0	14	-	12.52	7.27
		average	393	692	0	0	10	-	8.94	9.93
8	Ondokuz Mayıs	2010	702	2,626	0	0	9	-	7.51	2.66
		2011	676	1,593	0	0	11	-	2.42	4.09
		2012	692	904	2	1	11	31	3.25	8.45
		2013	725	208	2	1	16	28	11.50	4.25
		average	699	1,333	1	1	14	20	6.17	4.86

		2010	882	3,490	6	3	40	-	28.07	3.21
		2011	985	2,859	4	0	41	43	9.40	3.05
9	Selçuk	2012	980	1,657	3	1	23	55	11.77	8.90
		2013	795	288	8	0	36	60	24.82	10.03
		average	911	2,074	5	1	35	53	18.51	6.30
		2010	623	2,187	1	0	23	-	7.65	0.00
		2011	582	1,876	1	1	28	37	2.15	1.17
10	Uludağ	2012	572	726	3	2	17	40	3.91	3.43
		2013	612	235	3	0	26	43	10.09	0.79
		average	597	1,256	2	1	24	40	5.95	1.35

Note. (*) Index for entrepreneur and innovative university.

Results and Discussion

Table 3 introduces the scores in each evaluation parameter and the total country score for each of 10 universities in this category. One of the most important results of this study is to use the related tables for self-questioning of universities. Figure 1 shows change on scores for each parameter and general situation.

Among the 10 universities evaluated within the scope of this study, the highest scores in the field of scientific publications for four years are found in the universities of Çukurova and Erciyes, and the lowest scores belong to Cumhuriyet, Dicle, and Anadolu Universities (see Table 3). The average score of the universities based on the score of country was 147.51 for the field of scientific publication. Accordingly, five universities in this category are below average and five universities have scores above average value. Anadolu and Erciyes in the field of entrepreneurship-innovation and preference have the highest scores and Cumhuriyet and İnönü Universities have the lowest scores. The average score in this field is 60.92, which is below the score of five universities and above the score of the other five universities (see Table 3).

Table 3

The Average Values of Parameter and Total Scores for Ten Universites

#	University	Scientific Publication Score	EIPS[*]	Teaching Income Score	Academic Quality Score	Teaching Structure Score	Project Yield Score	Total score
1	Anadolu	114.70	90.93	80.00	157.62	79.89	152.48	674.59
2	Cumhuriyet	109.92	13.23	36.45	109.31	56.00	62.47	387.26
3	Çukurova	203.75	79.70	60.56	113.92	75.01	125.46	661.00
4	Dicle	109.19	42.45	72.76	137.10	67.23	44.27	477.99
5	Erciyes	193.58	84.21	46.00	133.10	72.42	155.24	681.68
6	Fırat	165.34	63.97	59.51	122.03	71.76	84.74	565.87
7	İnönü	122.30	30.29	66.98	128.16	72.50	64.74	485.01
8	Ondokuz Mayıs	160.17	59.90	61.13	138.06	72.57	116.86	608.72
9	Selçuk	158.08	63.63	43.60	101.71	66.17	170.22	590.68
10	Uludağ	138.12	80.93	49.86	125.68	68.55	175.98	636.34
Average[**]		147.51	60.92	57.68	122.66	70.21	115.24	576.91

Notes. (*) Entrepreneur-Innovation and Preference Score; (**) Average value on the relevant parameter for ten universities.

The average score in the teaching income is 57.68. Anadolu University, which is above the average, has 80.00 points and Cumhuriyet and Selçuk Universities, which are below the average value, have 36.45 and 43.60 points, respectively. In the field of teaching quality, universities offer values close to each other.

However, Anadolu University is at the top place while Selçuk University is at bottom place. The average value of this field is 122.66, which is below the score of six universities and above the score of four universities.

In the field of teaching structure, score of Anadolu and Cumhuriyet Universities are 79.89 and 56.00, respectively. The score of other universities are among these two values. The average value in the relevant area is 70.21. Uludağ and Selçuk Universities are the most successful universities in project yield. These universities have 175.98 and 170.22 scores, respectively. The average score in this area was 115.24 (see Table 3).

The overall scores of the universities covered in this study range from 387.26 to 681.68. The lowest score belongs to the Cumhuriyet University and the highest score belongs to Erciyes University. Anadolu and Çukurova Universities have relatively high and Dicle and İnönü Universities have relatively low scores. In this context, the four-year average ranking of each university in the country and category is presented in Table 4 for each parameter and general situation. In general, Erciyes, Anadolu, and Çukurova Universities are ranked the first, the second, and the third places, respectively. Uludağ, Ondokuz Mayıs, Selçuk, and Fırat Universities constitute the other orders respectively. The last three places from bottom to top are Cumhuriyet, İnönü, and Dicle Universities.
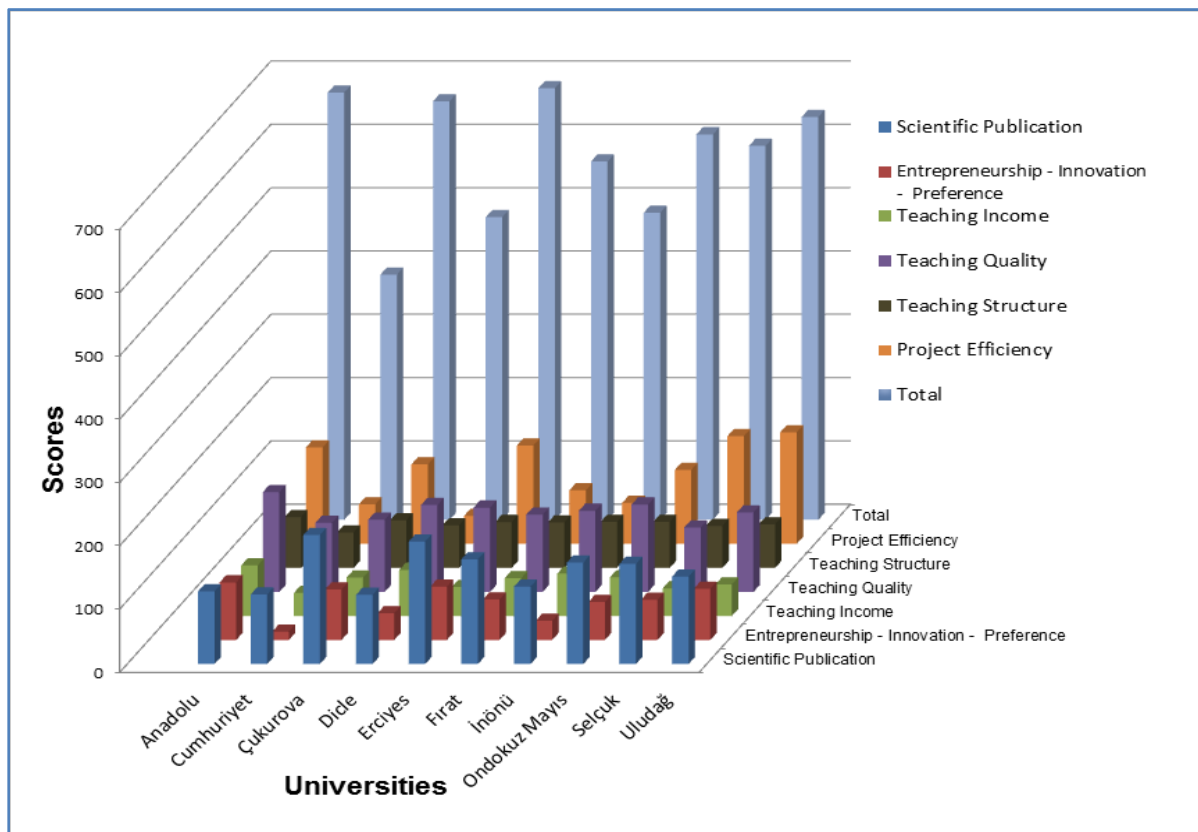

Figure 1. Change on scores for each parameter and general situation.

Çukurova University is the most productive university in the field of scientific publishing. However, this university is particularly low in other fields especially on teaching quality. Dicle University is ranked first in teaching income and third in teaching quality because of its low number of students and relatively high number of faculty. However, its yield in other areas is very low. Ondokuz Mayıs University, which ranked second after Anadolu University in terms of teaching quality, has low scores in other fields. Selçuk University, which is in

the first place in the field of project yield, has very low scores in other fields especially in terms of teaching income, teaching quality and teaching structure. This often leads to poor performance.

Tablo 4

Country and Category Rankings for Each Parameter and General Situation

#	University	Scientific Publication Score	EIPS[**]	Teaching Income Score	Academic Quality Score	Teaching Structure Score	Project Yield Score	Total score
1	Anadolu	62 (9)[*]	7 (1)	17 (2)	14 (1)	12 (1)	16 (2)	15(2)
2	Cumhuriyet	63 (10)	84 (10)	71 (9)	49 (10)	43 (10)	60 (9)	61 (10)
3	Çukurova	7 (1)	19 (4)	32 (4)	44 (8)	18 (2)	25 (5)	16 (3)
4	Dicle	46 (7)	39 (7)	16 (1)	29 (3)	29 (9)	70 (10)	41 (8)
5	Erciyes	9 (2)	14 (2)	60 (8)	37 (6)	22 (4)	21 (3)	14 (1)
6	Fırat	27 (3)	48 (8)	39 (6)	38 (7)	24 (6)	45 (7)	27 (7)
7	İnönü	54 (8)	55 (9)	30 (3)	35 (4)	21 (3)	58 (8)	41 (9)
8	Ondokuz Mayıs	28 (4)	32 (5)	39 (5)	28 (2)	23 (5)	34 (6)	22 (5)
9	Selçuk	33(5)	33 (6)	79 (10)	48 (9)	28 (8)	12 (1)	24 (6)
10	Uludağ	45 (6)	17 (3)	55 (7)	36 (5)	27 (7)	24 (4)	19 (4)
Ortalama[***]		37.4	34.8	43.8	35.8	24.7	36.5	28.0

Notes. ([*]) Category ranking in parenthesis; ([**]) Entrepreneur-Innovation and Preference Score; ([***]) Average of country ranking for each parameter.

Conclusion

In Turkey, by the end of 2013, there were 103 state universities that have completed their foundation. In this study, the performance evaluation of 10 universities, which took place between 1973 and 1978, was carried out. Localization, massification, politicization, and degradation in governance have been influential in the development of these universities, none of which were established within the metropolitan area of country during their foundation. It has been determined that the universities that have grown rapidly in recent years (such as Selçuk and Uludağ) have low performance. Universities, such as Cumhuriyet, where localization is effective and Dicle where politicization is very active, have very low performance data. Degradation on governance caused low performance (such as Ondokuz Mayıs and İnönü). Universities that have been trying to develop with certain strategic goals for many years and had minimized political and local influences can have high performance values (such as Erciyes). It should be noted that the values discussed above have occurred as combination of the factors acting on universities for last 10 to 15 years.

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