A RESEARCH STUDY ON THE EXPANSION OF STATE UNIVERSITIES IN TURKEY

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Abstract
The university is a field of science and education where knowledge is produced and transferred to the sectors, teaching is done and individuals are given a profession to use in their lives. For all of these studies, students, faculties and staffs are needed in a higher education institution. However, in order for studies in the academic field to be carried out correctly, these members must be presented at the University with the appropriate rates. In recent years, the number of students in the universities of Turkey has increased without conforming to some qualification ratios. This study depends on the data of 2010 to 2014. The number of total students range from 1 741 719 to 2 397 188 within this period. In this paper, the number of students as university stakeholders are presented according to the university categories, and the effect of student numbers on education quality are evaluated on the basis of different levels of study (pre-undergraduate, undergraduate, graduate) in Turkey. The study indicates that the rate of expansion to Turkish universities is quite high, when compared with those of the developed countries.
Keywords: Expansion of university, higher education, state university, university category

Introduction

In the historical process, there have been different periods of the higher education system in the world. In the Middle Ages, higher education, which began to form as a teacher-centered in the north of Europe and a student-centered in the South, gained a new dimension during the Umayyad State of Andalusia in Spain, and then in most major cities in Europe, universities began to form as similar situations today. At the beginning of the 19th century, universities began to change, and later, with the system called the "Humbolt model", research activities gained momentum, and departments were created in faculties with one branch of Science, and the basis of the academic chair was taken to the plan. While medieval universities adopted the path of defending truth, the Humbolt university model took on the task of exploring nature (Charle and Verger, 2005).

The Humboldt model has also influenced universities in the United States (USA). But with this effect, US universities have achieved a more efficient and effective university model, maintaining their original values. In particular, they managed to establish relations with all segments of society, not respecting the elitist understanding of the Humboldt model and opening it to the wider public. By building a large number of universities with large campuses and providing the necessary technical and social infrastructure equipment, significant distance has been taken in the goal of raising a strong society. In summary, after the Second World War, there was a serious expansion in US universities. Recently, in these universities, it is aimed to produce information by interdisciplinary methods, to train people with more entrepreneurial identity than scientists, and a professional management style is adopted with a global understanding.

In Turkey, it is known that the decision to establish a university in the Western sense was first taken in 1846 and the establishment of this institution, called "Darü'l Fünun", could only be realized in 1865. This institution, which was closed 15 years after its establishment, was reopened in 1900 under the name "Darü'l Fünun - i Osmani". This institution, consisting of schools of medicine, law, theology, literature, mathematics and science, was also attended by foreign scientists in the following years. In 1933, this university was closed and established a new higher education institution called "Istanbul University" by law No. 2252 . In 1944 Istanbul Technical University, in 1946 Ankara University and between 1956 and 1957 four new higher education institutions were established. Although new universities were gradually established in the following period, the number of higher education institutions rapidly increased after the second period of the 2000s, and a very serious expansion in the higher education system emerged. Currently, the system has 210 higher education institutions with more than 7.5 million students.

The author thinks that the expansion of higher education system in Turkey is a huge problem for education quality and research studies (Tosun, 2004, 2006, 2011, 2015, 2016, 2019a and 2019b). There are so many internal publications in quality of higher education system of Turkey (Doğramacı, 2007; Gunay, 2011; Günay and Günay, 2011 and Çetinsaya, 2014). In this study, the initial phase of this period (between 2010 and 2014) in Turkish university system, which has experienced a very serious expansion process in recent years, is analyzed with numerical values and especially the problems caused by the increase in the number of students are addressed

Materials and Methods

In the university system of Turkey, the number of students mainly includes students at associate (pre-undergraduate) and undergraduate levels. In general, six years of medical education and five years of veterinary education are included in the statistics as undergraduate level. In recent years, the number of students has increased

rapidly due to the return from elitist understanding in our higher education system to the understanding of massization (expansion) and even the internationalization of our universities. The assessment on this issue will be carried out in detail in the forthcoming section.

Tosun (2004, 2006 and 2015) introduced much data for the higher education system in Turkey. In this study, the number of students for four years (2010, 2011, 2012 and 2013) was evaluated in detail. In the study, the number of associate, bachelor, master and doctoral students for each university was considered separately. These values were taken from the YÖK information system. But since the number of students in universities is constantly variable, it should be noted that the data used in this study are values formed as of the end of June 2013. The study was conducted on the basis of the academic year, not on the basis of the academic period. For example, the definition of the 2010 academic period instead of the 2009-2010 academic year due to the fact that January in this period belongs to the year 2010 was made. The relevant values did not include students from the open education faculties of Anatolia, Istanbul and Atatürk universities.

The universities in developed countries are categorized according to different factors such as date of establishment, teaching area, scientific yield, budget income levels, etc. In Turkey, so far, no assessment has been made on this basis. But after that, it is necessary to conduct such studies in order to make healthier determinations and shape the quality of teaching. In this study, all state universities in the country were classified into six separate categories, taking into account the years of establishment of the university. The main reason for creating categories according to the year of establishment is that universities are funded largely from the state budget, they invest with the government support they receive, and these investments constitute a significant accumulation depending on the years. Table 1 introduces the categories of state universities, established between 1933 and 2011 in Turkey. In Turkey. The hundred-three state universities were established between 1933 and 2011 during the Republic period. In this study, the human resources (students) of state universities were discussed on the basis of the categories defined in Table 1.

Table 1. The categories of State Universities on the basis of collage age.

Category	Number of Universities	Range for establishment year	The Covered Universities
A	9	1933-1971	İstanbul, İstanbul Teknik, Ankara, Ege, Karadeniz Teknik, Orta Doğu Teknik, Atatürk, Hacettepe and Boğaziçi.
B	10	1973-1978	Anadolu, Çukurova, Dicle, Cumhuriyet, Fırat, İnönü, Ondokuz Mayıs, Selçuk, Uludağ and Erciyes.
C	9	1982-1987	Akdeniz, Dokuz Eylül, Gazi, Marmara, Mimar Sinan Güzel Sanatlar, Trakya, Yıldız Teknik, Yüzüncü Yıl and Gaziantep.
D	25	1992-1994	Abant İzzet Baysal, Adnan Menderes, Afyon Kocatepe, Balıkesir, Bülent Ecevit, Celal Bayar, Çanakkale Onsekiz Mart, Dumlupınar, Gaziosmanpaşa, Gebze Yüksek Teknoloji, Harran, İzmir Yüksek Teknoloji, Kafkas, Kahramanmaraş Sütçü İmam, Kırıkkale, Kocaeli, Mersin, Muğla, Mustafa Kemal, Niğde, Pamukkale, Sakarya, Süleyman Demirel, Eskişehir Osmangazi and Galatasaray.
E	41	2006-2008	Adıyaman, Ahi Evran, Aksaray, Amasya, Bozok, Düzce, Erzincan, Giresun, Hitit, Kastamonu, Mehmet Akif Ersoy, Namık Kemal, Ordu, Recep Tayyip Erdoğan, Uşak, Ağrı İbrahim Çeçen, Artvin Çoruh, Batman, Bilecik Şeyh Edebali, Bingöl, Bitlis Eren, Çankırı Karatekin, Karabük, Karamanoğlu Mehmetbey, Kırklareli, Kilis 7 Aralık, Mardin Artuklu, Muş Alparslan, Nevşehir, Osmaniye Korkut Ata, Siirt, Sinop, Ardahan, Bartın, Bayburt, Gümüşhane, Hakkâri, Iğdır, Şırnak, Tunceli and Yalova.
F	9	2010-2011	Abdullah Gül, Bursa Teknik, Erzurum Teknik, İstanbul Medeniyet, İzmir Kâtip Çelebi, Necmettin Erbakan, Türk-Alman, Yıldırım Beyazıt, Adana Bilim ve Teknoloji.

Results and Discussion

The distribution of the number of higher education students in our country by program levels is presented in Table 2. As can be seen from this table, the number of students increased significantly during the four working years. In particular, there is a rapid increase in associate and undergraduate programs. According to the average values of four years, the 30.3 and 60.7 percent of students are teaching in associate and undergraduate degree. while 6.7 and

2.3 percent are studying in MS and Ph. Degrees, respectively. The change in the number of students by year is given in Figure 1.

Table 2. The number of total students in all state universities considered in the study for a defined period.

Program	2010		2011		2012		2013	
	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)
Associate	559.505	32,1	560.866	30,2	623.700	29,4	704.240	29,4
Undergraduate	1.018.957	58,5	1.150.200	61,9	1.309.183	61,6	1.460.495	60,9
Total	1.578.462	90,6	1.711.066	92,1	1.932.883	91,0	2.164.735	90,3
MS Degree	120.997	7,0	106.514	5,7	142.835	6,7	177.011	7,4
Ph. Degree	42.260	2,4	40.349	2,2	48.065	2,3	55.372	2,3
Total	163.257	9,4	146.863	7,9	190.900	9,0	232.383	9,7
General Total	1.741.719	100	1.857.926	100	2.123.783	100	2.397.118	100

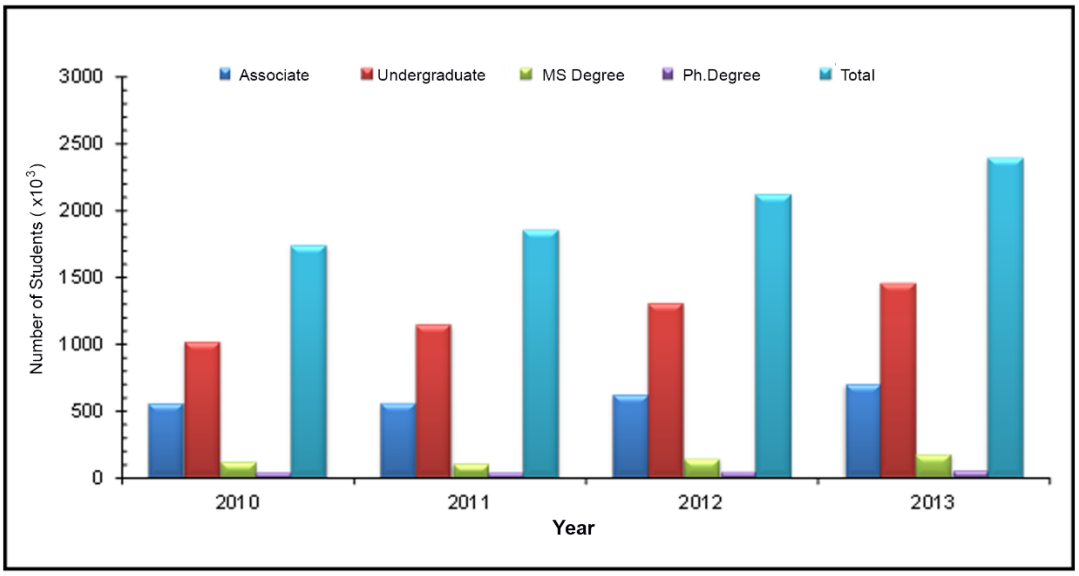

Figure 1. Programs and number of students in all state universities considered for this study.

In Table 3, the values related to the number of students of associate degree programs in the state universities included in the institutional structure of higher education in Turkey are presented. A graphical representation of the relevant data is shown in Figure 2. In Turkish higher education system, the main weight of associate degree programs is taken by the D-category universities. According to four-year data, the forty percent of the students in the total associate degree programs throughout the country are teaching at Category D universities, More than one quarter (26.0%) of all associate students are teaching in Category E with 41 universities established between 2006-2008. The lowest associate degree student value is numerically and proportionally found in the Category A universities for a defined period.

The distribution of student numbers in undergraduate programs by the categories is more balanced than in associate degree programs (table 4). The largest numerical and proportional quantities belong to the universities in Category D. A graphical representation of the relevant data along with others, is shown in Figure 2.

Table 3. The number of associate (pre-undergraduate) students for the university categories for a defined period.

University Categories	2010		2011		2012		2013	
	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)
A-Category (9 universities)	42.181	7,5	44.812	8,0	49.976	8,0	54.505	7,7
B-Category (10 universities)	88.226	15,8	87.307	15,6	98.462	15,8	109.363	15,5
C-Category (9 universities)	55.257	9,9	60.729	10,8	68.787	11,0	75.116	10,7
D-Category (25 universities)	236.571	42,3	224.841	40,1	241.139	38,7	273.266	38,8
E-Category (41 universities)	137.270	24,5	143.177	25,5	165.336	26,5	191.990	27,3
F-Category (9 universities)	-	-	-	-	-	-	-	-
Total	**559.505**	**100**	**560.866**	**100**	**623.700**	**100**	**704.240**	**100**

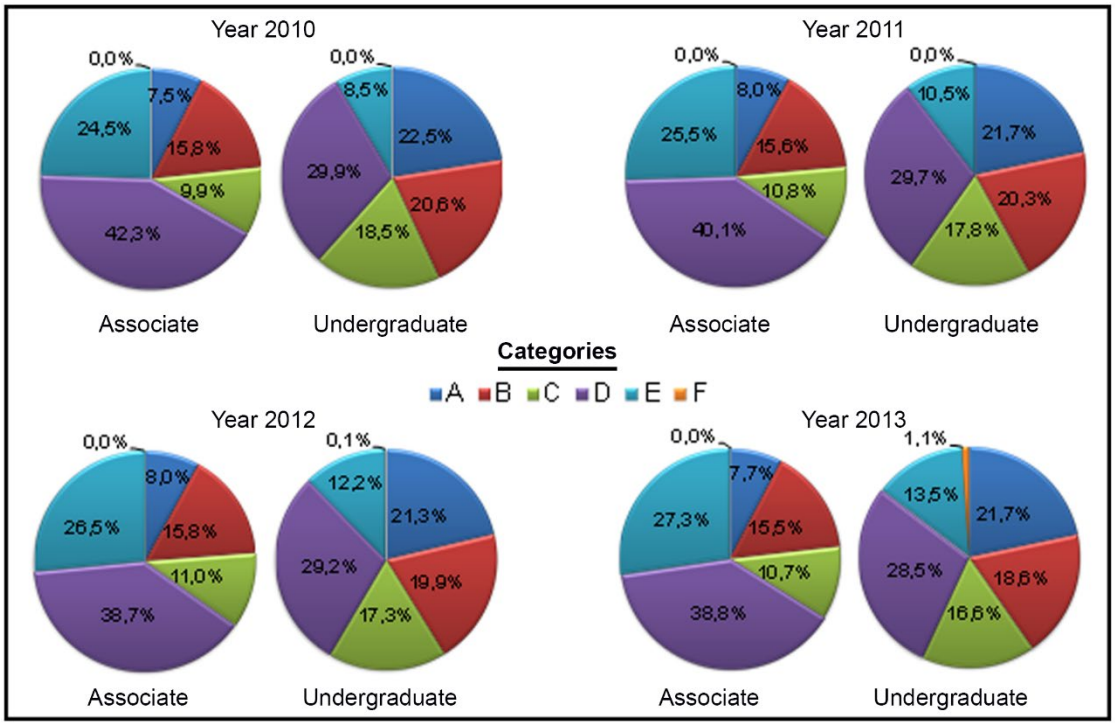

Figure 2. Rate of number of associate and undergraduate students on the basis of university categories.

Table 4. The number of undergraduate students for the university categories for a defined period.

University Categories	2010		2011		2012		2013	
	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)
A-Category (9 universities)	229.532	22,5	249.332	21,7	279.219	21,3	316.812	21,7
B-Category (10 universities)	209.496	20,6	233.067	20,3	261.029	19,9	271.007	18,6
C-Category (9 universities)	188.227	18,5	204.631	17,8	226.269	17,3	242.436	16,6
D-Category (25 universities)	304.923	29,9	342.244	29,7	381.932	29,2	416.530	28,5
E-Category (41 universities)	86.779	8,5	120.926	10,5	159.646	12,2	196.582	13,5
F-Category (9 universities)	-	-	-	-	1.088	0,1	17.128	1,1
Total	**1.018.957**	**100**	**1.150.200**	**100**	**1.309.183**	**100**	**1.460.495**	**100**

The distribution of number of MS Degree students and their proportional size are given in Table 5 according to the University categories. Although the number of MS Degree students is relatively higher in Category A, its distribution in categories A, C and D is balanced. The 4.8 percent of all MS Degree students are teaching in the Category E. However, the proportional sizes of this category have been higher in later years of working period. A graphical representation of the relevant data is given in Figure 3.

Table 5. The number of MS Degree students for the university categories for a defined period.

University Categories	2010		2011		2012		2013	
	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)	Number of Students	Ratio (%)
A-Category (9 universities)	37.685	31,1	33.901	31,8	43.105	30,2	50.779	28,7
B-Category (10 universities)	21.955	18,2	17.270	16,2	23.332	16,3	26.260	14,8
C-Category (9 universities)	30.275	25,0	25.913	24,3	35.465	24,8	41.701	23,6
D-Category (25 universities)	27.062	22,4	24.376	22,9	33.828	23,7	43.892	24,8
E-Category (41 universities)	4.020	3,3	5.054	4,8	6.947	4,9	11.017	6,2
F-Category (9 universities)	-	-	-	-	158	0,1	3.362	1,9
Total	**120.997**	**100**	**106.514**	**100**	**142.835**	**100**	**177.011**	**100**

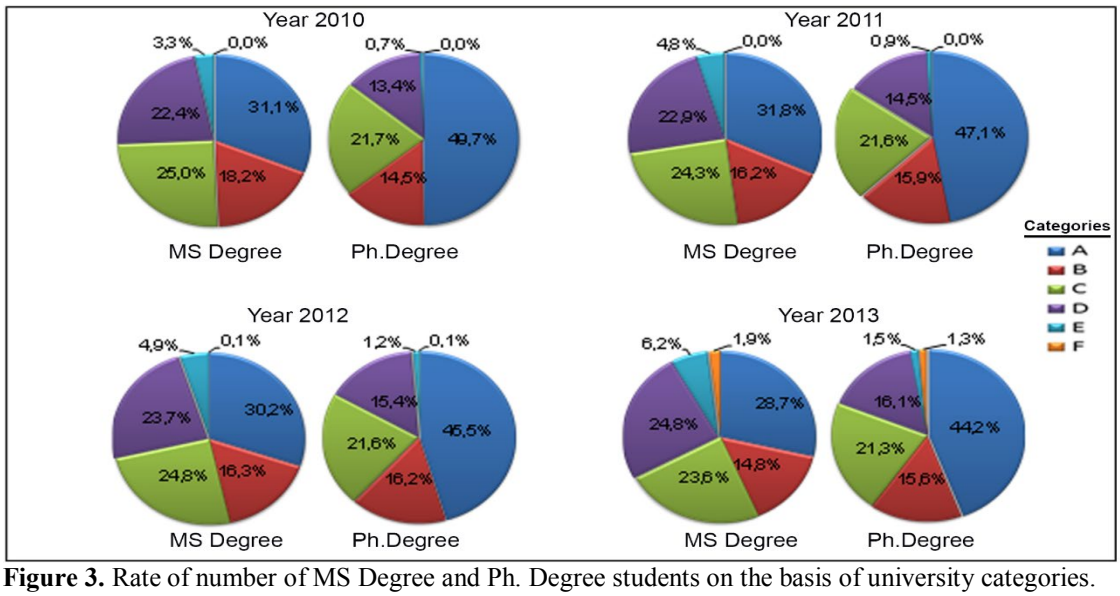

Figure 3. Rate of number of MS Degree and Ph. Degree students on the basis of university categories.

The number and proportional size of students participating in the doctoral programs of state universities in our country are given in Table 6. According to these data, an average of 46.6 percent of all doctoral students study at Category A universities. Category A universities take quite a lot of responsibility for graduate studies, especially at the doctoral level. The Category-E universities, established between 2006-2008, have a very low responsibility for doctoral teaching (1.1 percent), as opposed to those in the associate's program. A graphical representation of the relevant data, along with other data, is shown in Figure 3.

Table 6 The number of Ph. Degree students for the university categories for a defined period.

University Categories	**2010**		**2011**		**2012**		**2013**	
	Number of Students	Ratio **(%)**	Number of Students	Ratio **(%)**	Number of Students	Ratio **(%)**	Number of Students	Ratio **(%)**
A-Category (9 universities)	20.993	49,7	19.019	47,1	21.840	45,5	24.460	44,2
B-Category (10 universities)	6.145	14,5	6.429	15,9	7.792	16,2	8.654	15,6
C-Category (9 universities)	9.151	21,7	8.692	21,6	10.366	21,6	11.818	21,3
D-Category (25 universities)	5.677	13,4	5.841	14,5	7.423	15,4	8.933	16,1
E-Category (41 universities)	294	0,7	368	0,9	580	1,2	817	1,5
F-Category (9 universities)	0	0	0	0	64	0,1	690	1,3
Total	**42.260**	**100**	**40.349**	**100**	**48.065**	**100**	**55.372**	**100**

If associate and undergraduate programs are evaluated together, the thirty-two percent of students in these programs are in the Category D universities. Similarly, if Master's and doctoral programs are evaluated together, approximately forty percent of students studies at Category-A universities. Figure 4 presents the change in student numbers of six separate categories according to program levels for 2010, 2011, 2012 and 2013. The most striking result in this figure is the decrease in the number of doctoral students in the Category-A universities depending on time.

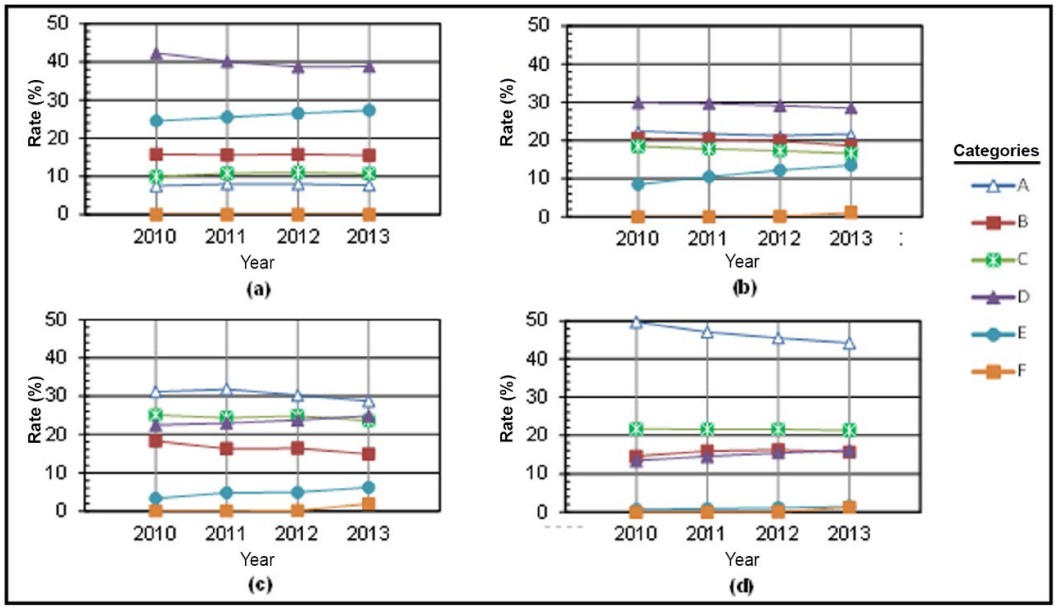

Figure 4. Change of on the ratios of student numbers on the basis of university categories and programs.

Conclusions

The Turkish higher education system has experienced a serious expansion (massization) process since the end of the 2000s. The number of students at public universities increased by an average of 38% in the four years that this study was conducted. It is known that this rate increased much faster in the following years. Today, the number of students in the higher education system in our country has exceeded 7.5 million. This process of expansion has

reduced the quality of teaching, and due to some external factors that occurred later, the educational structure of higher education institutions has been disrupted. In other words, the transformation envisaged in the strategic plan for the universities has not been achieved. For this purpose, it should take some new measures. In particular, some departments opened during the expansion process should be closed and the system should be normalized and the number of faculty members should be increased rapidly without compromising quality. The A-Category universities can be provided to appeal to master's and doctoral students in their entirety in order to train faculty members and increase the country's scientific culture. The associate degree programs should be re-recognized and removed from the higher education system and managed by a separate institutional structure. In this way, the real situation of higher education institutions across the country can be analyzed much better.

References

Charle, C. ve Verger,J. (2005). Üniversitelerin Tarihi (çeviri). Dost Kitabevi, Ankara.

Çetinsaya, G. (2014). Büyüme, kalite, Uluslararasılaşma:Türkiye Yükseköğretimi İçin Bir Yol Haritası. YÖK Yayın No: 2014/2, Ankara.

Doğramacı, İ. (2007). Türkiye'de ve Dünya'da Yükseköğretimin Yönetimi. Ankara, Meteksan

Günay, D. (2011). Türk Yükseköğretiminin Yeniden Yapılandırılması bağlamında sorunlar, eğilimler, ilkeler ve öneriler-1. Yükseköğretim ve Bilim Dergisi, C1, S3, 113-121.

Günay, D. ve Günay, A. (2011) "1933'den Günümüze Türk Yükseköğretimde Niceliksel Gelişmeler" Yükseköğretim ve Bilim Dergisi, C1, S1, 1-22.

Tosun, H. (2004). Yükseköğretimde Mevcut Durum: Performans Değerlendirme ve Yeniden Yapılanma. Ankara Ticaret Odası, ISBN 975-512-840-9, Ankara, 94 sayfa.

Tosun, H. (2006). Güncel Verilerle Üniversitelerin Performans Değerlendirmesi ve Yeniden Yapılanma Modeli. Köyçoy Yayınları Serisi: 1, ISBN 978-9444-0782-0-7, Ankara, 171 sayfa.

Tosun, H. (2011). University performance and distribution of state finance resources. *International Higher Education Congress*, İstanbul, 27-29 May,2011.

Tosun, H. (2015). S*tate Universities-Performance evaluation financial modeling and restructuring. Second Edition*, ISBN 978-9444-0782-5-2, Ankara, 373 p.

Tosun, H. (2016). 15 Temmuz 2016 Darbe Girişimi Sonrasında Yükseköğretim Sistemini Yeniden Yapılandırması. Üniversite(m) Yayınları, ISBN 978-9444-0782-6-9, Eskişehir, 120s.

Tosun, H. (2017). A Performance Study for the Universities Founded before 1973, Turkey. The Online Journal of Quality in Higher Education, 5(2), 12-17.

Tosun, H. (2019a). Yükseköğretime Dair Notlar" İlahiyat Yayınları. ISBN 978-605-7579-34-8, Ankara, 120 s.

Tosun, H. (2019b) "A Performance Assessment Model Recommended for Higher Education System in Turkey and a Case Study" Psychology Research, October, Vol. 9, No. 10, 420-431, Doi:10.17265/2159-5542/2019.10.003.