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Sustainability Performance of Turkish Universities: A Research on THE Impact Rankings

Türk Üniversitelerinin Sürdürülebilirlik Performansı: THE Etki Sıralamaları Üzerine Bir Araştırma

Abstract

Sustainability has been on the international agenda since the 1970s with the leading role of the United Nations and universities are assuming an increasing responsibility to realize the sustainability goals. In order to make these efforts more visible, measurable and comparable, universities have increasingly taken part in international sustainability rankings. In this context, the aim of this study is to analyze the sustainability performance of Turkish universities concerning the global sustainability rankings. To this end, Times Higher Education Impact Rankings, based on the United Nations Sustainable Development Goals, were used as data source. In the light of this data, the development of SDG-based priorities, performance scores and rankings of Turkish universities over the years has been examined, and detailed analyzes analyses for 2023 are also included. The findings imply that Turkish universities are performing better in sustainability with each passing year, but there is still much room for improvement.

Öz

Sürdürülebilirlik, Birleşmiş Milletler'in öncü rolüyle 1970'lerden bu yana uluslararası gündemde yer almakta ve üniversiteler sürdürülebilirlik hedeflerinin gerçekleştirilmesinde giderek artan bir sorumluluk üstlenmektedir. Bu çabaları daha görünür, ölçülebilir ve karşılaştırılabilir kılmak için üniversiteler uluslararası sürdürülebilirlik sıralamalarında daha fazla yer almaktadır. Bu kapsamda, bu çalışmanın amacı Türk üniversitelerinin sürdürülebilirlik performansını küresel sürdürülebilirlik sıralamaları açısından analiz etmektir. Bu amaçla, Birleşmiş Milletler Sürdürülebilir Kalkınma Amaçlarını (SKA) temel alarak küresel üniversite sıralaması yapan Times Higher Education Impact Rankings verileri kullanılmıştır. Bu veriler ışığında Türk üniversitelerinin SKA temelli önceliklerinin, performans puanlarının ve sıralamalarının yıllar içindeki gelişimi incelenmiş, 2023 yılına yönelik detaylı analizlere de yer verilmiştir. Bulgular, Türk üniversitelerinin sürdürülebilirlik konusunda her geçen yıl daha iyi performans sergilediğini, ancak halen iyileştirilmesi gereken alanlar olduğunu göstermektedir.

Keywords

Sustainable University, sustainability reporting, sustainability rankings, THE impact rankings, Turkish higher education

Anahtar Kelimeler

Sürdürülebilir üniversite, sürdürülebilirlik raporlaması, sürdürülebilirlik sıralamaları, THE etki sıralaması, Türk yükseköğretimi

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Introduction

Sustainable development has become the current buzzword in the development discourse, with different definitions, interpretations and implications. The historical context of sustainable development originated in the discipline of economics and has expanded its scope over time. Debates in this regard first started around the limited natural resources of the world and whether they could continually sustain the existence of the growing human population. Later, global concerns were raised about environmental degradation as a threat to long-term economic growth. In the 1970s, sustainable development was discussed in terms of population, production and the environment. The concept of sustainable development was first recognized internationally at the UN Conference on the Human Environment in Stockholm in 1972, despite the lack of explicit reference to it. Subsequently, in 1987 the World Commission on Environment and Development, chaired by Gro Harlem Brundtland, declared the so called Brundtland Report entitled "Our Common Future" in 1987 (Mensah, 2019). The Brundtland Report defined sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" and this definition is still used by the United Nations (United Nations, 1987).

Following the Brundtland Report and a succession of United Nations conferences and summits, the world leaders adopted the United Nations Millennium Declaration in the year 2000 and set out the Millennium Development Goals (MDGs) to be achieved by 2015. The goals included universally accepted targets, including ending extreme poverty and hunger, eliminating deadly diseases, and extending universal primary education to all children (UNDP, 2023). Following the expiration of the deadline for the Millennium Development Goals in the year 2015, member states adopted the "2030 Agenda for Sustainable Development" and Sustainable Development Goals (SDGs). The Agenda 2030 provides a roadmap to tackle the world's most pressing challenges, including ending poverty, economic prosperity for all countries and all people, social inclusion, environmental sustainability, peace and good governance. It is operationalized through 17 Sustainable Development Goals and 169 sub-goals that demand transformation across five main themes: people, planet, prosperity, peace and partnership. The SDGs provide a broader framework than the Millennium Development Goals by focusing on the universal development that applies to all people. As stated in the 2030 Agenda the SDGs address global issues including "inequalities, economic growth, decent work, cities and human settlements, industrialization, oceans, ecosystems, energy, climate change, sustainable consumption and production, peace and justice" (United Nations, 2015). Thus, unlike the MDGs, which were designed specifically for developing countries, the SDGs are universal and cover all countries.

Due to this comprehensive and challenging nature, all actors throughout the world need to cooperate in a coordinated effort to achieve the SDGs. In fact, in most countries,

governments, non-governmental organizations and enterprises are increasingly developing an awareness of sustainable development. The role of educational institutions in attaining sustainable development goals is even more crucial. The education sector is becoming one of the top priorities on the global sustainability agenda and has been included as a stand-alone goal (SDG 4) in the implementation of Agenda 2030. "SDG 4 - Quality Education" is defined as ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. Target 4.3 specifically addresses universities, calling for equal access for all women and men to affordable and quality technical, vocational and higher education (SDSN General Assembly, 2017).

Higher education is a sub-sector within the education sector that can contribute directly or indirectly to all goals beyond SDG 4. Higher education institutions are the principal institutions that disseminate knowledge through teaching and produce new knowledge through research. In this respect, higher education institutions around the world could play a leading role in contributing to sustainable development. Universities undoubtedly have strong potential and provide valuable input to SDG implementation. However, it is unclear how this engagement is taking place around the world, and it is difficult to quantify the contribution of universities in this regard (Filho et al., 2023). In order to overcome this challenge, metrics management system that is already applied by universities has inevitably been extended to the field of sustainability (De la Poza et al., 2021). Sustainability indicators and rankings, which have become widespread in recent years, provide measurability and serve as an incentive for sustainability efforts at universities.

Recently global university rankings have become increasingly important in higher education. These rankings are not only increasing in number, but also have considerable influence and are followed by all stakeholders in higher education. Despite increasing criticism and objections particularly among the scientific community, the impact of world rankings is continuously spreading (Hamann & Rinkel, 2023: 845). Currently, most of these university rankings traditionally assess the performance of higher education institutions through their two main functions: teaching and research. Major international rankings value the research dimension much more than the teaching dimension. Yet, along with the transformation in the higher education paradigm, the social mission of universities has come to the forefront in recent years. Accordingly, global university rankings have been incorporating metrics on social contribution and sustainability into their methodologies.

In terms of sustainability reporting, the Global Reporting Initiative (GRI), first published in 1997, is the oldest standard for organizing sustainability reports. However, GRI Standards do not provide a methodology for universities (Acuner et al., 2023). In response to this need, different reporting and assessment systems for universities are being developed (Burmann et.al, 2021). International sustainability rankings are increasingly recognized as a useful tool to assess the impact of universities in the areas of environmental, economic and

social improvement (Perchinunnoa & Cazzolle, 2020). The main systems that evaluate and rank universities in terms of sustainability are Sustainability Tracking, Assessment and Rating System (STARS), UI GreenMetric World University Ranking (UI GreenMetric), Times Higher Education Impact University Ranking (THE Impact Rankings) and Quacquarelli Symonds (QS) World University Rankings-Sustainability.

These rankings are also of interest to Turkish universities, which have intensified their efforts on sustainability in recent years. In parallel with global trends, policies based on quality, diversity, mission differentiation, social contribution, social responsibility and sustainability have come to the fore in Turkish higher education. In this context, this study aims to determine the situation of Turkish universities in the field of sustainability and to provide a projection for future efforts. To this end, the study is organized in two main sections. The first section provides a literature review on the sustainability performance of Turkish universities. Later, the study analyzes the performance of Turkish universities in global sustainability rankings. For this purpose, THE Impact Rankings, which assesses the sustainability performance of universities directly through SDGs, is used as a data source in this study. The ranking has been published since 2019 and its most distinctive feature is that it has a different methodology than world university rankings, which focus predominantly on research universities. Therefore, the ranking includes not only elite research universities, but also more locally oriented universities with different missions (Gill, 2023). In this context, this study analyses the evolution of the sustainability performance and priorities of Turkish universities through THE Impact Rankings data. The analysis focuses on Turkish universities ranked in the top 600 with a score of 70 and above in the year 2023.

Literature Review

The literature review reveals that there are many studies addressing the issue of universities and sustainability in general. However, the number of studies investigating the role and practices of universities directly in the context of sustainable development goals is more limited.

In Turkey, the article published by Nasır (2012) is one of the first studies on universities and sustainability. The study draws attention to the critical role of higher education institutions in the realization of sustainable development principles. Later studies generally focus on sustainable and green campuses with a particular emphasis on the environmental dimension of sustainability (Saygın & Ulusoy, 2011; Ayten, 2016; Artar et al., 2019; Kayapınar-Kaya et al., 2019; Karcı-Demirkol & Birişci, 2020; Öktem, 2020; Hergül, 2021; Kahveci, 2021; Yapıcı et al., 2021; Kalawi, 2021; Ardalı & Köksal, 2022; Çakanel et al., 2022; Çelik & Öztürk, 2022; Altun & Zencirkıran, 2023).

On the other hand, the number of studies analyzing Turkish universities in terms of sustainability reporting and global sustainability rankings is more limited. One of the first

studies examining universities in Turkey within the scope of sustainability ranking was published by Ağı-Günerhan and Günerhan (2016). The study was aimed at investigating sustainability efforts of Turkish universities and offering a "sustainable university model" accordingly. Findings implied that the sustainability efforts of universities in Turkey are limited and it is suggested that the universities should have a sustainability vision and mission, a committee of experts and a sustainability office to develop effective policies and coordinated action. Sustainability-themed strategies are envisaged to be addressed under four main headings: teaching, research, community outreach and collaborations, and sustainability on campus.

Bozoğlu and Ciğerim (2022) state that the studies on sustainable universities, especially in the national literature, are quite limited and from this point of view, they examine sustainable university models and sustainable university rankings. The findings indicate that these models and rankings can provide an important reference point on sustainability, especially for decision makers in higher education.

Tanç et al. (2022) aim to raise awareness by revealing the current situation of universities in Turkey on sustainability. The scope of the study consists of a total of 207 universities, including state and foundation universities in Turkey. The data in the study were obtained by examining the corporate web pages of the universities. The findings of the study show that the majority of universities generally focus on a limited number of topics such as environmental sustainability, zero waste and green campus. It is stated that universities are insufficient in terms of reporting which approaches sustainability studies from a holistic perspective / OR in terms of approaching sustainability studies from a holistic perspective. It has also been determined that public universities are more active in terms of sustainability studies than foundation universities. The fact that the number of universities publishing-such reports is quite low shows that universities have not sufficiently adopted the sustainability approach.

Uçar and Özdemir (2022) focused on the sustainability activities and reporting processes of universities in Turkey. In the 2020 Green Metric World University Rankings, the sustainability reports of universities in Turkey were examined and the scope of the information provided was subjected to content analysis. As a result of the analysis, it was observed that only eight of the higher education institutions published reports and only one university presented a report within the framework of GRI principles. As a result, it has been determined that sustainability reporting in Turkish universities is not yet at an adequate level, has the potential for development and is an issue that should be emphasized by the administrations.

Gedikkaya-Bal et al. (2022) examine the participation of Turkish universities in STARS, UI GreenMetric and THE Impact Ranking indexes, the change in this participation over the years and their comparative position as to universities around the world. As a result of the analysis, it was found that the participation of Turkish universities in these rankings has increased, but the number of universities in the top 100 is quite low.

Maçin (2021) analyzes the UI GreenMetric ranking performance of universities in Turkey. According to the results, the most successful category for Turkish universities was transportation, while the least successful categories were energy and climate and water. It was also found that 72% of the universities that applied did not make it into the top 300. It is stated that the most important problems in this context are the lack of sustainability offices and the inability to provide institutional data for application.

Acuner et al. (2023) presented Istanbul Technical University, which is well positioned in UI GreenMetric and THE Impact Rankings, as a case study. The study-aimed to show the progress in the fields of education, research, sustainable campus practices and contribution to society by conducting a SWOT analysis of universities in Turkey through international indicators, to identify missing points and to determine a road map in the short, medium and long term by taking these into consideration. For this purpose, the case of Istanbul Technical University is used.

The literature review reveals that sustainability efforts in Turkish universities have become widespread, generally focusing on a limited number of topics related to environmental sustainability and a limited number of universities are systematically reporting on sustainability. It is also observed that the number of Turkish universities in global sustainability rankings are increasing in number, yet it is still limited in terms of both quantity and quality Therefore, this study is expected to contribute to the sustainability literature in Turkish higher education and the efforts of universities in this field.

Research: Sustainability Performance of Turkish Universities in THE Impact Rankings

In this section, the comparative position of Turkish universities in The Impact Rankings, their chronological development and the transformations of SDG priorities are analyzed. The overall performance of Turkish universities in the rankings is presented in an integrated perspective.

Purpose and Importance of the Study

The aim of the study is to examine the sustainability development of Turkish universities within the scope of their position in THE Impact Rankings. In the literature, studies examining the sustainability studies of Turkish universities and their positions in the rankings are limited, and no comprehensive analysis has been found in THE Impact Rankings. In this sense, it is thought that it is important to determine the situation and provide a prediction for studies in this field. For this purpose, the performance of Turkish universities in THE Impact Rankings over the years, their position compared to similar countries, and trends in sustainability priorities on the basis of the SDGs they focus on are analyzed and the comparative position of 13 Turkish universities ranked in the top 600 with a score of 70 and above in 2023 is examined.

Methodology

In this study, document analysis method, one of the qualitative research methods, is used. Document analysis is a systematic procedure for examining and evaluating documents and entails examining and interpreting data to uncover meaning, gain understanding and develop empirical knowledge. Data from documents can be used to reveal background and context, to obtain complementary data, to confirm findings from other data sources, or to monitor change and development. The researcher can examine periodic and final reports to get a clear picture of how an organization or program has progressed over time (Bowen, 2009).

In the current study, document analysis is used to monitor the development and current status of Turkish universities in sustainability rankings. Higher Education Impact Ranking Reports published by Times Higher Education are used as the data source. The reports have been published with the same methodology since 2019 and provide the opportunity to compare five-year's development and trends. The fact that the reports have a methodology that focuses directly on the SDGs, as well as allowing for analysis on an SDG-by SDG basis, provides a suitable basis for the subject of the study.

The Times Higher Education Impact Rankings evaluates all 17 sustainable development goals under separate headings and measures the success of universities in achieving these goals. Universities are not obliged to provide information on all of these SDGs, but any university that provides data on SDG 17 and at least three other SDGs is included in the overall ranking. In addition to the overall ranking, the results for each SDG are published in 17 separate tables. The ranking uses indicators in four areas: 'research', 'administration', 'outreach' and 'teaching'. Each SDG has a set of metrics used to assess the university's performance in that SDG. The score in each SDG is scaled so that the highest score in each SDG is 100 and the lowest score is 0 in the overall calculation. A university's total score in a given year is calculated by combining its score in SDG 17 with its three best results in the remaining 16 SDGs. SDG 17 accounts for 22 percent of the total score, while the other SDGs each have a weight of 26 percent. This means that different universities are scored against different SDGs depending on their areas of focus. In this context, the performance of Turkish universities over the years, their position compared to similar countries, and trends in sustainability priorities based on the SDGs they focus on are analyzed in the five-year period since 2019, when THE Impact Rankings started. In addition, the development and sustainability priorities of 13 Turkish universities ranked in the top 600 with a score of 70 and above in 2023 are analyzed.

Findings

Participation in the THE Impact Rankings can provide insight into which countries are more focused on sustainability and which sustainable development goals they contribute to in particular. It is seen that the number of participating universities has been increasing since the

impact ranking started in 2019. The interest of Turkish universities in the rankings has also increased in recent years, with an increase above the world average in 2020 and 2023.

Table 1

Participation in THE Impact Rankings by Year

Year	Number of Participating Countries		Number of Participating Universities		Number of Participants from Turkey	
	f	Increase Rate	f	Increase Rate	f	Increase Rate
2019	76		467		19	
2020	85	12%	768	64%	36	89%
2021	94	11%	1.118	46%	49	36%
2022	106	13%	1.406	26%	58	18%
2023	115	8%	1.705	21%	79	36%

Source: Times Higher Education, 2024.

In the 2023 THE Impact Rankings, Australian and Canadian universities were the leading institutions with their sustainable development efforts. Among the top 100 institutions in THE Impact Rankings, the UK has 26 universities, followed by Canada (16) and Australia (15).

As a matter of fact, the universities ranked in the top 10 in the 2023 ranking (with the exception of the University of Manchester) are not in the top 100 in the world university rankings.

Similarly, looking at the top 10 countries with the highest number of participating universities, the growing interest of middle-income countries in sustainability is noteworthy. As of 2023, Russia has the highest number of universities with 92, followed by Turkey (79), Japan (78), Pakistan (73), India (72), Thailand (66), the United Kingdom (61), Iraq (58), the

Table 2

THE Impact 2023 - Top 10 Countries Regarding the Number of Ranked Universities

Country	Number of HEIs Ranked	Top-ranked HEI	Place in the ranking
Russian Federation	86	Kazan Federal University	201-300
Turkey	79	Istanbul Technical University	=58
Japan	78	Hokkaido University	22
Pakistan	72	COMSATS University Islamabad	201-300
India	66	Amrita Vishwa Vidyapeetham	=52
Thailand	65	Chulalongkorn University	17
United Kingdom	57	University of Manchester	2
Iraq	56	University of Basrah	401-600
USA	50	Arizona State University (Tempe)	6
Brazil	47	University of Sao Paulo	101-200

Source: Times Higher Education, 2024.

United States (56) and Uzbekistan (53) (**Table 2**). Seven of these ten countries are middle-income countries according to the World Bank's economic classification (Gill, 2023). Turkey, India and Thailand have universities in the top 100.

Universities of middle-income countries are mostly in the 1001+ range. It is perceived that Thailand is more successful in terms of the number of universities in the top 200. Turkey and India, which are in a similar position with 3 universities each in the top 200. Therefore, compared to middle-income countries with the highest number of participating universities, Turkish universities are in a relatively good position. Considering the middle-income countries in the 2023 THE Impact Rankings, the Russian Federation has the highest number of participating universities (86), while Turkey (79) and Pakistan (72) rank second and third, respectively. When the number of universities ranked in the top 1000 of these countries is analyzed, Turkey ranks 1st with 43 universities. Turkey is followed by the Russian Federation (42) and India (41). For comparison, the cumulative distribution is presented in the graph below.

Despite the high number of Turkish universities in the ranking, the proportion of universities at the top of the ranking is limited. Around 46% of the universities are ranked in the 1001+ range and the percentage of universities ranked 601+ range is 84%. In other words, the proportion of universities in the top 600 remained at only 16%. Considering Turkey's position in THE Impact Rankings by years (**Table 5**), it is noted that in 2019 there were 3 Turkish universities in the top 100, and then there were no Turkish universities in the top 100 until 2023. While Istanbul Technical University (ITU) was in the 601+ band in 2020, when it first included in the ranking, it was ranked 58th in 2023, making substantial progress. The performance of other universities appears to be more stable.

Figure 1

THE Impact 2023- Comparative Position of Middle-Income Group Countries and Turkey

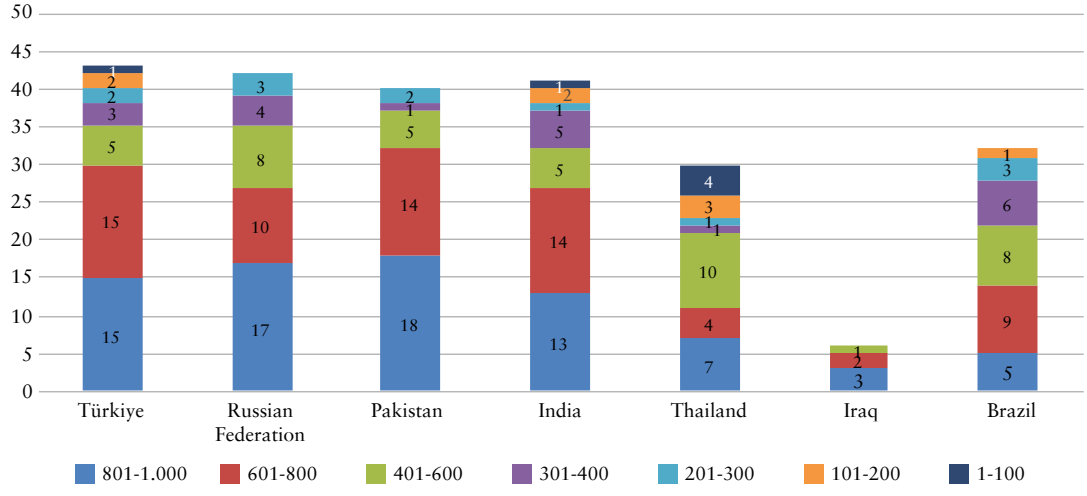


Table 3

Sustainability Rankings of the Turkish Universities (Ranked in the top 600 in THE Impact 2023)

	THE Impact Ranking 2023	Score	World University Rankings 2024	UI Green Metric Ranking	QS Sustainability 2024 Ranking
Ozyegin U.	301-400	72.7-76.7	801-1000	89	1201+
Sakarya U.	301-400	72.7-76.7	1201-1500	189	981-1000
Bahcesehir U.	401-600	66.9-72.6	801-1000	880	
Boğaziçi U.	401-600	66.9-72.6	601-800		335
Dokuz Eylul U.	401-600	66.9-72.6	1201-1500	159	
Kadir Has U.	401-600	66.9-72.6		771	
Selcuk U.	401-600	66.9-72.6	1201-1500	491	961-980

Source: Times Higher Education, 2024.

THE Impact Rankings also enable an assessment of the performance of Turkish universities in each SDG area. Because in THE Impact methodology, universities are obliged to submit data for SDG 17 and they have the option to decide which of the other SDGs to report. Therefore, participation rates in the SDGs can be an indicator of the sustainability priorities and weaknesses of both countries and universities. Globally, SDG 3 (good health and well-being) and SDG 4 (quality education) appear to be the high priority for universities. Yet, there are also some differences by country. For example, South Korea focuses on SDG 9 (industry, innovation and infrastructure); Kazakhstan on SDG 16 (peace, justice and strong institutions); Canada and Taiwan on SDG 7 (accessible and clean energy); and the United Kingdom on SDG 3 (good health and well-being) and SDG 10 (reducing inequalities) (Ellis, 2023).

Table 4

SDG Priorities of Turkish Universities by Years

	2019	2020	2021	2022	2023
SDG No					

Source: Times Higher Education, 2024.

Table 5

SDG Priorities of Turkish Universities Ranked in the Top 600 in 2023 by Year

	2019	2020	2021	2022	2023
Istanbul Technical U.					
Abdullah Gül U.					
Middle East Technical U.					
Hacettepe U.					
Yildiz Technical U.					
Erciyes U.					
Ozyegin U.					
Sakarya U.					
Bahcesehir U.					

Source: Times Higher Education, 2024.

The table indicates that SDG 5, SDG 11, SDG 12 and SDG 16 were prioritized more in 2019. In the year 2020, SDG 16, SDG 1, SDG 5, SDG 7 and SDG 8 came to the fore. It should be noted that from 2021 onwards, SDG 9 (18 universities) and SDG 4 (15 universities) were the most reported goals. The distribution of focus on SDGs by years is presented in the graph below.

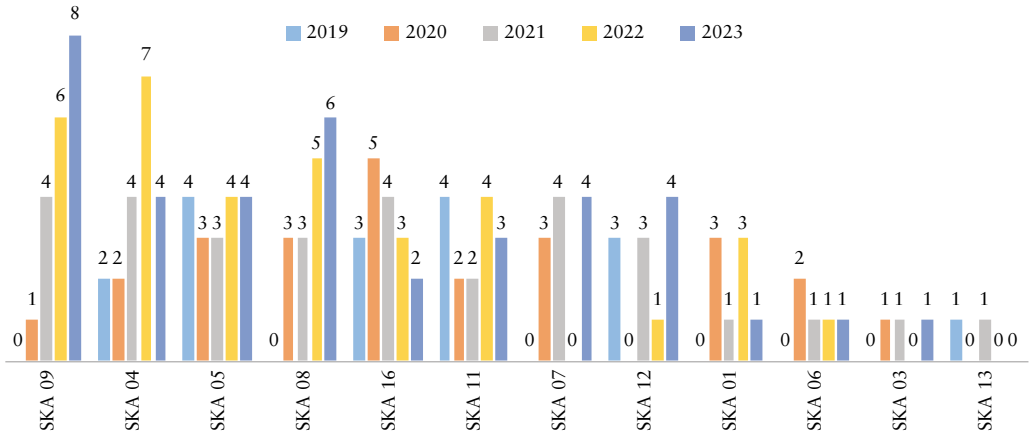
The annual change in the sustainability priorities of Turkish universities can be identified with reference to the SDGs they received the highest score in THE Impact Rankings. Accordingly, the table below illustrates the SDGs where Turkish universities have focused over the years.

As of 2023, universities focused mostly on SDG-9, which covers industry, innovation and infrastructure. SDG 9 is one of the top three SDGs with 23 universities scored the highest. It was also noted that universities have been focusing on this goal since 2021. Similarly, SDG 4 (quality education) has become one of the priorities of universities in the last three years. SDG 16 (peace, justice and strong institutions), on the other hand, seems to have taken a back seat. The SDG priorities of Turkish universities ranked in the top 600 are presented in the table below.

When the SDG-based scores of the Turkish universities in the top 600 are analyzed, it is observed that ITU, YTU, METU and Abdullah Gül University have achieved scores above 90. The SDG-based scores of Turkish universities for 2023 are presented in the table below.

Figure 2

SDG Priorities of Turkish Universities by Year



Source: Times Higher Education, 2024.

Table 6

SDG-Based Scores of Turkish Universities in the Top 600 in 2023

	SDG1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16	SDG 17	OVERALL
ITU	65,9	76	40,3	91,3	73,3	85,9	79,5	96,8	99,1	74,5	89,7	74,2	49,7	74,6	74	72	88,4	90,8
Abdullah Gül U.	85	60,7	46,1	78,6	52,1	61	64,5	69,9	63,5	53	80,6	74,3	65,8	42,6	64,2	73,4	90	82,2-88,2
METU	81,5	73,6	70,8	63,4	66,2	68,6	87,5	87,8	97,4	72	84,5	83,2	48,7	63,3	63,1	72,7	80,9	82,2-88,2
Hacettepe U.			79,9	74,3	86,3				88,8	73,2						70,9	73,7	76,8-82,1
YTU	67,8	47,4	27,5	75,3	61,2	54,2	90,2	74,5	99	57,4	63,5	76,2	59,5	50,5	64,6	49,3	75,7	76,8-82,1
Erciyes U.	40,1	51,7	56,1	62,7	42,2	58,4	42,6	67,4	88,2	63,9	57,7	56,6	71,3	51	60,3	49,6	68,5	72,7-76,7
Ozyegin U.							75,4	74,3			57,3	73,4				81,1	76,6	72,7-76,7
Sakarya U.	59,6	60,4	53	38,4	44,3	63,9	74	79,1	45,6	56,3	62,6	75,4	58,3	49,2	52,2	47,8	59,6	72,7-76,7
Bahcesehir U.			62,2	81,4	73,8				70,2	61,9	55,8					81,9	62,7	66,9-72,6
Boğaziçi U.	56,1	58,2	51,4	63,3	67,5	64,8	57,1	56,5	84,5	49,4	62,8	41,4	53,9	48,2	51,4	47,9	50,7	66,9-72,6
Dokuz Eylul U.		62,1	60,1	25,6				61	79	45		67,2					59,1	66,9-72,6
Kadir Has U.				58,8	73,1			73,2	52,3	60,5	66,3					66	76,2	66,9-72,6
Selcuk U.	40,9	66,3	69,5	84,1		60,9	52,2	62,4	86,9	69,5	75,3	49,6	55,2		61,7	67,2	62,3	66,9-72,6

Source: Times Higher Education, 2024.

According to their SDG based scores, ITU ranks ninth in SDG 8, 10th in SDG 4 and 23rd in SDG 9, while YTU ranks 12th in SDG 7. The SDG-based rankings of the universities in the top 600 are presented in the table below.

Table 7

SDG-based Rankings of Turkish Universities in the Top 600

	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16	SDG 17	OVERALL
ITU		75		**10**		**32**	95	**9**	**23**		**40**			79	99		96	58
Abdullah Gül U.	**28**		98														74	101-200
METU	**39**						**27**	71	**35**		79	88						101-200
Hacettepe U.					60				85									201-300
YTU							**12**		71									201-300
Erciyes U.									90				100					301-400
Ozyegin U.																		301-400
Sakarya U.																		301-400
Bahcesehir U.				67												93		401-600
Boğaziçi U.																		401-600
Dokuz Eylul U.																		401-600
Kadir Has U.																		401-600

Source: Times Higher Education, 2024.

Discussion

This section draws conclusions and presents recommendations on the sustainability performance of Turkish universities in line with the research findings. The findings were interpreted according to the analysis framework used by Acuner et al. (2023), which consists of "policy development", "implementation" and "evaluation" stages.

As of 2023, the Turkish higher education system has 208 higher education institutions with 184,702 academic staff and a total of 3,842,831 formal education students (Council of Higher Education, 2023). These data indicate that Turkish higher education has a high potential of faculty members who can work on sustainability and students who can contribute to sustainability in the future. However, the findings of this study reveal that this potential has only been realized to a limited extent. In 2023, 98 Turkish universities applied to the UI GreenMetric ranking, 24 to the QS Sustainability ranking and 79 to THE Impact Rankings. Although these numbers have increased over the years, it could be argued that Turkish universities are still at an early stage in sustainability work and reporting. As a matter of fact, universities perform better in the UI GreenMetric Ranking, which focuses on environmental sustainability. 6 Turkish universities are among the top 100 in this ranking.

Regarding THE Impact Rankings, only one out of 79 Turkish universities ranked in the top 100, while 66 universities ranked in the 600+ band. In the light of these data, it is evident that the sustainability efforts of universities in Turkey are generally concentrated in the field of environmental sustainability. Findings in the literature also confirm this observation, as well (Maçin, 2021; Güngör-Tanç et al., 2022; Uçar & Özdemir, 2022; Gedikkaya-Bal et al., 2022).

The success of sustainability efforts depends primarily on their university-wide integration within the framework of an institutionally determined policy. Today, many efforts directly or indirectly related to sustainability are being carried out in universities. However, their efficiency is reduced due to the fact that they are performed separately and are disorganized. For this reason, institutional policies and strategies related to sustainability should be included in the strategic plan. This would enable planned initiation and interconnection of the activities to be carried out. As a matter of fact, it is apparent that Turkish universities that rank high in sustainability rankings have policy documents, mission and vision statements on sustainability. At the same time, it is found that the concept of sustainability is also included in the institutional vision and mission statements of some universities. These universities incorporate sustainability-related goals in their strategic plans, as well. Some universities have published policy documents specific to sustainability goals, such as the plan to combat gender discrimination, gender equality principles and strategies document, academic freedom, integrity, inclusion and equality policy.

Considering the strategic priorities of Turkish universities within the scope of THE Impact Rankings, it is observed that SDG 9, which focuses on industry, innovation and infrastructure, and SDG 4, which focuses on quality education, have come to the forefront since 2021. In 2023, the universities ranked in the top 600 followed the same trend. This finding can be partly explained by the fact that some of the universities in the ranking have research university status. In the SDG 9 category, ITU, METU and YTU were successful with scores close to 100. Yet, there are also many universities in the ranking that do not have this status. Therefore, it is possible to mention the positive impact of national policies and incentives in the field of university-industry cooperation in recent years. Similarly, it is observed that quality and accreditation initiatives, which have accelerated in recent years, have made significant contributions. On the other hand, regarding SDG 17, covering universities' collaboration with other stakeholders for sustainability, Turkish universities tend to score relatively low. There are various international networks that support universities in this regard and Turkish universities should be encouraged to actively participate in such platforms. It is also observed that Turkish universities do not perform well in many other SDGs. This may indicate that our universities are currently prioritizing SDGs in which they are already institutionally strong. As a matter of fact, SDG 4 and SDG 9 are the areas that universities already report for quality and accreditation assessments. Therefore, incentive mechanisms should be developed for the areas that have so far been out of the attention of universities or in which they are rather weak.

The success of sustainability at universities depends on the existence of appropriate structures where policies are communicated to stakeholders and implemented. In this context, the existence of commissions, including representatives from senior management, is important for the formulation of institutional policies. Yet, perhaps even more crucially, it is essential to have sustainability offices that will directly monitor and coordinate efforts and generate data. Indeed, in many of the exemplary universities examined in this study, sustainability offices have been established, web pages have been created, and information about developments is constantly shared. Some universities have research centers on sustainability, as well. In the context of sustainability education, it is observed that sustainability-related course lists at undergraduate and graduate level are shared on the sustainability web pages. These universities also have graduate programs in sustainability. In addition, universities that are members of international networks adopt international standards in the sustainability process through joint work. Thus, universities that aim at progressing in the field of sustainability should implement similar mechanisms to ensure the institutionalization of their efforts.

The third stage of the sustainability process is the monitoring and evaluation of the level of realization of strategies and objectives. This requires collecting, evaluating and reviewing data according to predetermined indicators. In order for the monitoring and evaluation process to produce accurate results, an appropriate reporting system should be employed. As a matter of fact, it was observed that well scored Turkish universities publish sustainability reports in line with the metrics of the ranking organizations. For instance, it is stated that the reporting methodology developed by ITU, has a stake in the progress recorded in recent years (ITU, 2023). However, it should be noted that the number of Turkish universities practicing sustainability reporting is quite low.

Sustainability reporting may be complicated by the fact that some activities particularly regarding social engagement are more complex to measure. Therefore, it is important that sustainability activities can be assessed through indicators as much as possible. In countries such as Australia, which ranks high in sustainability rankings, there are national policy documents and assessments on sustainability practices of universities. In Turkey, there is no such national framework yet. Sustainability studies are evaluated under the heading of "social contribution and social responsibility" as part of the accreditation and monitoring processes carried out by the Turkish Higher Education Quality Council (THEQC). In the THEQC reports it is stated that the criteria under the social contribution heading are at the lowest level compared to the other criteria and are evaluated as an area for improvement. It is noted that the majority of universities are in the planning and implementation stages in this area, but the number of universities conducting monitoring and evaluation is quite low (THEQC, 2023).

This implies that although there are various sustainability practices in our universities, they are not reported and thus have a negative impact on visibility and success in global sustainability rankings. In fact, the topic of social contribution has been included in the

quality and accreditation reports of Turkish universities since 2019, which can be considered as a recent date. Therefore, universities need to transfer their experiences in other indicators such as education and research to this field. In this context, a significant development was the inclusion of "Sustainability" as a main category in university monitoring and evaluation reports in 2023. This is an important step in terms of sustainability reporting. The criteria in the sustainability category are similar to the UI GreenMetric methodology. While the criteria in this category cover environmental sustainability, a limited number of indicators related to economic and social sustainability are included in the social contribution area. In order to ensure systematic integrity, the sustainability category can be constructed as a matrix that integrates environmental-economic-social sustainability including indicators of major global sustainability rankings. Standardization of indicators and reports will facilitate the participation of universities in rankings and increase their effectiveness.

Conclusion

The world-wide sustainability efforts of universities are becoming increasingly prominent in the Turkish higher education system as well. Turkish universities have begun to focus more on the issue of sustainability both qualitatively and quantitatively with each passing year. Although they have recorded success in some areas, it should be noted that there is still much room for improvement. It is also essential to ensure that the experience and achievements of these universities are spread to other Turkish universities through the spillover effect.

In this context, there is a pressing demand for more theoretical and practical work on sustainability in Turkish higher education. Yet, it is very difficult to identify and measure the sustainability-related efforts and contributions of universities. The most effective instruments for demonstrating this contribution are sustainability reporting and participation in rankings. For this reason, in the current study, the researchers address the issue within the scope of sustainability rankings in order to reveal the sustainability efforts of Turkish universities with more concrete data. Similarly, the focus is on SDGs where sustainability is expressed with specific goals. In this manner, it is expected to present a data-based snapshot of sustainability in Turkish higher education and provide a source of information for policy makers. Nevertheless, the study has its limitations. In the research, THE impact ranking was used as a data source and other global sustainability rankings were not covered. In addition, a descriptive analysis was made, but in-depth analysis on university level was not included. Thus, in future studies, it is recommended to explore the standing of Turkish universities in other global sustainability rankings. Particularly, the sustainability reports of Turkish universities should be analyzed through qualitative methods. Furthermore, case studies should be conducted to analyze the universities that are successful in sustainability rankings. Further research will make substantial contributions to both policy makers and practitioners in this rapidly expanding field.

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