

# Indicators of Institutional and Program Ranking of Universities with Reference to the Arab World



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**Abstract** Currently, for a population of circa 400 million in the Arab world, there are 700 public and private universities in the Arab world with an enrollment of 13 million students and 250,000 academic staff (faculty). The 300 private universities accommodate 30% of the student enrollment, compared with 50% in Japan, 30% in Europe 30%, and 20% in the U.S.

Ranking is controversial and biased in favor of research in the natural and medical sciences with less emphasis on engineering and social sciences, and largely ignore the humanities, and favor publications in English.

Academic rankings of world universities vary in the criteria used for excellence. Shanghai Tiao Tong university ranking “Academic Ranking of World Universities” (ARWU), established in 2003, was based on two indicators: published papers in top journals and staff winning high awards.

ARWU ranks 500 top world universities. Institutions are ranked in 52 subjects across natural sciences, engineering, life sciences, medical sciences and social sciences using a minimum standard of publication threshold. It uses four criteria: quality of education (10%), quality of faculty (20%), research output (60%), and per capita academic performance (10%).

Times Higher Education World University Ranking (THE) started with Quacquarelli Symonds (QS) in 2004 and split later with Thomson Reuters in 2009. Along with ARWU and QS world universities rankings, THE are the three most influential international university rankings.

THE uses 13 indicators grouped under five categories: teaching (30%), research (30%), citation-research impact (32.5%), international collaboration (5%), and innovation (2.5%).

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The QS ranking uses six indicators: academic reputation (40%), employer reputation (10%), faculty-student ratio (20%), citations per faculty (20%), proportion of international students (5%), and proportion of international faculty (5%).

Jordan Ranking for universities which was developed recently by the Higher Education Commission, is based on giving the university an overall ranking score in respect to five major performance indicators: teaching and learning (score 250), scientific research (score 250), internationalization (score 150), quality of graduates (score 200), and academic accreditation (score 150).

The introduction of university rankings has created competition for global standing, quality graduates, and research outputs.

**Keywords** Ranking Universities · Institutional ranking · Indicators of ARWU · Times Higher Education · QS rankings · Ranking universities in Arab region · Jordan ranking · Weights of ranking universities · Comparison between ranking league tables

## 1 Introduction

Ranking has driven universities to excel in teaching/learning and provide the facilities and funds to support faculty members to publish in high-quality journals. Ranking has created competition for world standing, quality graduates, and research output [1]. No doubt, rankings will influence students' choice of what university to join for pursuing his/her study and also the choice of teaching/research staff for institutions providing an environment for excellence and career development.

Ranking started in the U.S. in 1983 for academic institutions and programs, to advise parents and students where to go for quality of higher education [2]. But the question is **why rank?** The U.S. ranking started with the annual publication of "America's Best Colleges", followed thereafter by America Best Academic Programs. Countries followed the American example for giving information to stakeholders, clients, and using ranking as **marketing strategies** of the institutions of higher education. Parents and students remain the main audiences of ranking as well as governments and foundations giving scholarships to students. University rankings spread quickly particularly among the newly established private universities and was known in the United Kingdom as League Tables.

Academic programs are built in an inducing environment for quality learning and research. The institution has to deliver quality for the marketplace. So career development and employability are indicators to push the ranking of the university upward. Also, the delivery of patents and research outputs in high-impact journals with recognized citations will enhance the ranking reputation of the institution.

Ranking, therefore, will ignite competition among higher education institutions for excellence in teaching and research. But the question remains, **who ranks?** The numbers of universities are on the increase in every continent and massification

requires an independent annual analytical peer-review based on sets of standards and indicators.

The review should be done by unbiased independent agencies to measure quality of internationally recognized learning outcomes. Nowadays, private and media-based magazines or newspapers do most rankings, but governments and professional associations are playing a greater role.

Indicators vary from one agency to another. Therefore, the outcomes of university ranking vary accordingly. Some ranking agencies emphasize publications of high impact, citations, and research, whereas others emphasize quality teaching, internationalization, reputation, employability, faculty ratio to students, and other indicators.

Ranking has to adopt certain standards for academic quality. Data should be collected from original sources. Variables should be established and weighted, then calculation and comparison are undertaken to sort out ranking in computerized format.

World-class universities are moving away from local-linked approaches to offer an international character based on international standards to offer global opportunities for mobile students across political borders. So ranking has overcome competition among universities inside one country to international competition, for world-class universities [3].

There is no doubt that ranking is shaping the horizon of potential students, parents, employers, and governments on the quality of higher education. However, global ranking may be misused, particularly when it becomes the main driver of the university in any country, ignoring the social link with local needs. This may also lead to diverting state resources to ranking at the expense of solving problems and being relevant to the needs of the local community [4]. Yes, ranking is important for comparison with other higher-education institutions, but should not be based only on the ranking standards and ignore the criteria of development and public service. Professor Martin of the University of Queensland Australia puts it "International rankings are meant to identify the best workplaces, yet none of the rankings evaluate indicators like job satisfaction, work-life balance and equal opportunity [4].

Institutions may be ignoring equity and serving students with lower socio-economic and academic backgrounds by being more selective simply to climb the ladder of ranking tables.

The World Bank has brought 100 higher-education institutions from seven Arab countries in the MENA region (Middle East and North Africa) into an initiative to enhance governance, quality, and accountability through capacity building for intended learning outcomes (ILOs). Action plans to improve their performance were adopted against a benchmark with peers.

It would be naive to think that rankings are not important: they are here to stay [5]. Nevertheless, we should not forget the importance of universities in developing the community and society at large, both socially and economically, and the obligations these institutions have to serve tax payers.

## 2 Who Does the Global University Ranking and What Criteria Are Used?

There are three global major leading university rankings [6]:

### 2.1 *Academic Ranking of World Universities*

ARWU – referred to as “Shanghai Jia Tong University in China”, emerged in 2003 and is based on academic awards i.e. Noble laureates etc. and cited research papers published in high-impact journals such as Science in the U.S. and Nature in the U.K.

- Shanghai ranking targets world research universities, only picks 1000 universities out of the 17,000 universities in the world and top 500 are ranked in the league table.
- Institutions are ranked in 52 subjects (2017) across natural sciences, engineering, life sciences, medical sciences and social sciences, using minimum standards of publication thresholds.
- Institutions with Noble prizewinners, and publications in Science and Nature journals are included, and biased toward them.
- ARWU consists of objective indicators only, all the data used are from third parties and publicly available and do not use data directly from universities.
- Shanghai ranking started out to measure the gap between Chinese universities as compared to world-class universities.
- China has tried to rank world research universities according to academic and research performance and based on world comparable data, and decided to publish its ranking on the internet in 2003 as academic ranking of world universities (ARWU).
- ARWU is biased towards natural sciences.
- Many universities are aiming at ARWU ranking which they consider the university elite league. University of Manchester is aiming for top 25 by 2050. University of Toulouse is aiming for top 100 within 20 years. Queen Mary, University of London, Macquarie University in Australia, China Medical University, and others have set a target to become within the top 150, 200, 500 in sequence.
- Shanghai ARWU ranking is transparent, elitist, and highly reputable ranking system for universities. Criteria, indicators, and weights are shown in the following listing:

| Criteria                  | Indicator   | Weight (%) |
|---------------------------|---|------------|
| 1. Quality of education   | Alumni winning Nobel Prizes and Fields Medals                                       | 10         |
| 2. Quality of faculty     | Staff Nobel Prizes and Fields Medals  | 20         |
|                           | Highly cited researchers in 21 areas  | 20         |
| 3. Research output        | Papers in Nature and Science  | 20         |
|                           | Papers indexed in Science Citation Index-expanded and social Science Citation Index | 20         |
| 4. Per capita performance | Per capita academic performance of an institution                                   | 10         |

## 2.2 *Times Higher Education World University Ranking (THE)*

- Created in 2004 with QS World University Ranking before separation in 2009.
- Biggest in the league, list top 1000 universities in the world as the only global performance table to judge world-class universities across teaching, research, knowledge transfer, and international outlook.
- THE ranking [7, 8] expanded due to dramatic change in higher education, from 5 performance indicators to 13 performance indicators to provide the most comprehensive balanced comparison trusted by students, academics, university leaders, industry and governments.
- THE World University Ranking is no longer based on outsource data, but has its own in-house rankings team of professionals who work directly with institutions to collect data to provide transparency, governance, and accountability based on institutional data.

### 2.2.1 “THE” World Universities Ranking Domain Tables (2017)

Ranking tables include the following:

- World universities ranking.
- BRICS (Brazil, Russia, India, China, and South Africa) and emerging economies rankings.
- Asian university rankings.
- Latin America rankings.
- One hundred fifty institutions under 50 years of age.
- World reputation rankings.

### 2.2.2 “THE” Performance Indicators (2017)

The Times Higher Education (THE) World University Rankings includes 13 separate indicators to provide a comprehensive and balanced comparisons.

The 13 performance indicators are grouped into the following areas:

- Teaching (learning environment).
- Research (volume, income, reputation).
- Citations (research impact).
- International outlook (staff, students, and research).
- Industry engagement (income, knowledge-transfer).

THE global rankings examine global competitive research performance and citations.

### 2.2.3 “THE” Weights Indicators (2017)

#### 1. Learning environment: 30%

- Reputation: 15%
- Staff to students ratio: 4.5%
- Doctorate to bachelor ratio: 2.25%
- Doctorates awarded to academia ratio: 6%
- Institutional income: 2.25%

#### 2. Research: 30%

- Reputation: 18%
- Income: 6%
- Productivity: 6%

#### 3. Citations: 30%

#### 4. International outlook: 7.5%

#### 5. Industry-income and knowledge-transfer: 2.5%

### 2.2.4 BRICS and Emerging Countries

#### 1. Advanced emerging:

Brazil, Czech Republic, Greece, Hungary, Malaysia, Mexico, Poland, South Africa, Taiwan, Thailand, Turkey.

#### 2. Secondary emerging:

Chile, China, Colombia, Egypt, India, Indonesia, Pakistan, Peru, Philippines, Qatar, Russia, UAE.

### 3. Frontier:

Bahrain, Bangladesh, Botswana, Bulgaria, Cote d'Ivoire, Croatia, Cyprus, Estonia, Ghana, Jordan, Kenya, Latvia, Lithuania, Macedonia, Malta, Mauritius, Morocco, Nigeria, Oman, Palestine, Romania, Serbia, Slovakia, Sri Lanka, Tunisia, Vietnam.

## 2.3 *QS World University Rankings*

QS [9, 10] initiated the world universities ranking in 2001 and launched the THE-QS world ranking in 2004 based on research, teaching, and international metrics. Graduates and employability were added to form the four center pillars which rankings are based on today.

1. Annual ranking by Quacquarelli Symonds (QS) targets institutional and academic programs similar to THE ranking, but different from Shanghai (ARWU) ranking which address only the world top research universities.
2. QS ranking targets global overall world universities and subject rankings.
3. In 2007, QS switched to Scopus (Elsevier) from ESI for citation data.
4. QS has used Full-Time Equivalent (FTE) data for all personnel data and reached a new level of exposure and most widely used basis for comparing universities across borders.

### 2.3.1 **QS Ranking Portfolio (2018)**

The portfolio is composed of the following:

- QS world universities ranking
- QS university rankings: Asia
- QS university rankings: Latin America
- QS university rankings: by subject
- QS best student cities
- QS ranking 50 universities under 50 years old.

### 2.3.2 **QS Criteria for Ranking and Weights (2018)**

- Academic reputation: 40%
- Employer reputation: 10%
- Student to faculty ratio: 20%
- Citations per faculty: 20%
- International faculty: 5%
- International students: 5%

QS ranking is stable and unique with simple methodology, discipline-independent, language-independent, and with a low dependence on self-reporting.

QS is the only ranking system that gives weights to graduate employability, which is important to graduates. The survey questions employers, identifying which universities are producing the best graduates for the marketplace. It gives the student an outlook of universities outside their national borders with a reputation of employability once they graduate.

### **2.3.3 QS Ranking by Subject (2018)**

QS ranking covers 46 subjects (2018) in arts and humanities, engineering and technology, life sciences and medicine, natural sciences, social sciences, and management.

### **2.3.4 QS Ranking by Faculty (2018)**

Four performance indicators are used to rank the world top 400 universities in 5 faculty areas:

- Arts and humanities.
- Engineering and technology.
- Life sciences and medicine.
- Natural sciences.
- Social sciences and management.

### **2.3.5 QS Ranking for Graduate Careers (2018)**

1. Best universities ranking in creating student-employer connection.
2. Best universities in alumni outcomes.

### **2.3.6 QS Established Five Key Criteria of Graduate Employability**

- Employer reputation: 30%
- Alumni outcomes: 20%
- Employer partnership: 25%
- Employer-student connection: 15%
- Graduates employment rate: 10%



### **2.3.7 QS Regional Rankings (2018)**

- QS also targets five regional rankings: Asia, Latin America, Emerging Europe and central Asia, Arab Region, and BRICS.

### **2.3.8 QS Ranking Universities of the Arab Region (2018)**

Ranking weights are distributed as in the following:

- Academic reputation: 30%
- Employer reputation: 20%
- Faculty-student ratio: 20%
- Web impact: 10%
- Proportion of staff to PhD: 5%
- Citations per paper: 5%
- Papers per faculty: 5%
- Proportion of international faculty: 2.5%
- Proportion of international students: 2.5%

## **2.4 Thomson Reuters (TR)**

TR is not a ranking agency, but is involved in collecting data on Higher Education Institutions (HEIs) to be utilized by Leiden Ranking, Shanghai Ranking, U-Multirank, and U.S. News Best Global Universities. Ranking for performance metrics allow comparisons among HEIs in the world.

Collection of data starts in May and June of every year. This includes data collection from universities combined with bibliometrics data and survey of reputation, all utilized by the ranking agencies. Data are refreshed in the fall of each year.

## **2.5 U-Multirank**

This is a European ranking system that has been developed as an alternative approach to the existing global rankings. The European Commission developed it for a better and broader global ranking in HEIs (2011). So far, two editions were created, the first in 2014, the second in 2015.

Multirank differs from other rankings in the following respects.

1. Multi-Dimensional approach for multiple purposes and activities. It combines the analysis of research performance with four additional other university performances. Performance is measured per indicator and is user-driven.

2. As an alternative to the “League table” U-Multirank uses five performance groups.
3. U-Multirank is user-driven, considers “absolute and objective relevance” and it is the ranking client who decides on the selection of dimensions and indicators and not the ranking producer. Institutional profiles are identified to compare “apples with apples”. It differs from other ranking systems, which heavily focus on research and reputation, and focus on teaching-led and regionally engaged institutions.
4. Users can create their own ranking by interactive website ([www.umultirank.org](http://www.umultirank.org)) according to their performance.
5. U-Multirank uses 30 indicators in 5 dimensions: teaching/learning, research, knowledge transfer, international orientation, and regional engagement. It provides ranking at the level of the institutions and disciplines and invites participating universities to supply their data and institutional profile.
6. U-Multirank presents some innovative research and innovative performance indicators not found in other rankings.
7. Ready made rankings have been developed by U-Multirank for coherent indicators to present specific performance aspects such as research and linkages, economic involvement, internalization, teaching and learning.
8. Registration is from March until July, publication in March of every year. Data collections sent by institutions start within 3 months of March, followed by verification as an interaction with the institution to correct their data, corrected data are then submitted for “second verification” with an interaction process, and the final phase is for data analysis and calculations of final score. Student surveys are adapted to national contexts.
9. The institutional rankings are updated every 2 years, and field-based ranking every 3 years. There are 1200 universities from more than 80 countries in the U-Multirank database. It is the largest database worldwide.

## ***2.6 U.S. News Best Global Universities Ranking***

The U.S. ranking (based in Washington DC) was developed in 2014. Although, national ranking has been published for 30 years for U.S. Best Colleges and Universities, so the new U.S. rank system was an extension of the old published yearly in U.S. News Best Global Universities. Ranking data collection is based on Thomson Reuters information. The published ranking is in October of every year.

The ranking indicators used for U.S. News are: reputation, publications, citations, highly cited papers and college-specific data on enrollment, faculty etc.

## ***2.7 Other Global Rankings of Universities***

There are CWTS Leiden Ranking and the Webometrics Ranking systems. There is also an interesting one that ranks universities around the world in terms of their environmental sustainability: the UI Green Metric World University Ranking created and compiled by the University of Indonesia.

Scimago Institutions Rankings (SIR) is a classification of academic and research institutions ranked according to three sets of indicators based on research performance, innovation outputs, and social impact measured by Web visibility [11].

## **3 Comparison: Which University Ranking Has the Most Authority?**

There are different approaches used by different ranking systems [12] and it is hard to say what is the most appropriate.

ARWU reflects academic quality [13] particularly faculty and alumni who won the Noble prize as a result of work done at the university, thereby preventing buying-out Noble prize winners. Also, ARWU measures quality of research published in key journals. It measures excellence of educational and research outcomes but in a narrow perspective.

QS and THE rankings are broadly based include students number, international faculty, and students, all influenced by world reputation. Leiden focuses on scientific impact of publications from 500 universities. While Webometrics ranking is based on links the university homepage have with other institutions and good management of the website. So “authority” of a ranking system to measure performance of HEIs is hard to determine which is the most informative to the need of the institution. Table 1 shows the comparison between the three world major ranking systems.

## **4 How Universities Improve Their World-Class Ranking**

It is difficult to envisage that one size fits all. Regardless of ranking position, indicators have to evaluate current conditions to drive institutional direction.

**Table 1** Comparison between three major ranking systems

| Academic Ranking of World Universities (ARWU) | QS World University Rankings (QS-WUR) | Times Higher Education of World University Ranking (THE) |
|---|---------------------------------------|--|
| Per Capita Performance <b>10%</b>             | Citations per faculty <b>20%</b>      | Learning environment <b>30%</b>                          |
| Nobel/Fields Medal Alumni <b>10%</b>          | Academic Peer Review <b>40%</b>       | Research <b>30%</b>                                      |
| Nobel/Fields Medal Winner <b>20%</b>          | Employer Review <b>10%</b>            | Citations per paper <b>30%</b>                           |
| HiCi Researcher <b>20%</b>                    | Student Faculty Ratio <b>20%</b>      | International outlook <b>7.5%</b>                        |
| Nature/Science Articles <b>20%</b>            | Int'l Student <b>5%</b>               | Industry-knowledge transfer <b>2.5%</b>                  |
| SCI/SSCI/A&HCI Articles <b>20%</b>            | Int'l Faculty <b>5%</b>               |  |

Source: Badran, Adnan 2017 AAS Conference Beirut November 11–12, 2017

#### **4.1 For Thomson Reuter**

Strategies on improving performance of research quality, appointing best faculty, building leadership in staff, improving governance and transparency, ensuring that faculty and administration are clear about the learning outcome and the mission, vision and objectives of the university. The faculty should ensure that bibliometric providers are counting accurately all research papers and citations, since they are weighted heavily in ranking methodology [14].

#### **4.2 For ARWU Shanghai Ranking**

Emphasis should be on research excellence, recruiting promising researchers, and monitoring the performance of the faculty and schools.

#### **4.3 For Times Higher Education (THE) World University Rankings**

Institutions should focus on set of performance indicators to change their position on the ranking scale.

#### **4.4 For QS World University Rankings**

Emphasis on institutional transparency through being better every year in ranking position. The following five components contribute to better and faster climbing the steps of a higher ranking position:

- Governance: sustained, isolated from political change or manipulation.
- Performance-driven.
- Focus: excellence and branding, cost-effective.
- Branding: is essential for recognition and partnership and should be honest.
- Collaboration: joint research means higher impact.
- Ensure that academic peer and employers list well prepared, that they have knowledge of university achievement in research, innovation and excellence of the learning environment.
- Ensure that all research papers are registered with Scopus to reflect the university outstanding in research.

#### ***4.5 For U-Multirank***

For good ranking outcomes, the university should:

- Have a clear strategy and profile in research, teaching, knowledge transfer, internalization and regional engagement.
- Optimize its information system in a transparent way.

#### ***4.6 For U.S. News Best Global Rankings***

The university needs to take seriously their external data reporting, accuracy, and proper distribution. Accurate data reflect positively in rankings. The faculty should ensure that papers published are indexed properly so as to get full credit for publications on citations, web of Science-Thomson Reuters, Scopus-Elsevier.

### **5 Is Ranking Biased?**

- Looking at indicators of ranking systems, we find that ranking is biased toward publication in English and toward American and European journals (Language biased).
- Also, ranking in general favors publications in medical and biological sciences and ignores publications in local and regional journals in the local language in the MENA region, directed at solving local problems (Regional biased).
- Some ranking indicators favor large universities (Large-institution biased).
- Secondary effects of previous ranking positions, so those who were ranked highly continue to be so (Inherited-merit biased).
- Also, some rankings ignore social and humanities sciences (Less-social-humanities biased).

- Ranking indicators somewhat marginalize E-Learning, online or MOOC (massive open online course) and life-long learning (Online-Learning biased).
- Focus on numerical data rather than on the real education of students (Data biased).
- Retrieval ignores the quality of Web documents although link-based measures as PageRank are used [15].
- Citations may give a way for manipulation; “you cite me, I’ll cite you”.
- Some institutions manipulate data to move up in ranking position.
- Contracting high-caliber international professors for the purpose of short-term improvements in ranking.
- Most rankings are somewhat commercially oriented.

## **6 Although Rankings Might Be Biased, We Have to Take Them Seriously**

- University rankings clearly ignite competition among HEIs.
- They lead to excellence in both subjects and institutions.
- They keep the university in a dynamic process of development.
- Awareness of governments to support HEIs.
- Awareness by parents where to send their teenagers for higher education.
- They spreads the culture of transparency.
- Rankings enhance mobility of international staff and students, and influence student choice [16].
- Build-up regional and global reputation and collaboration.
- Rankings help establish a “brand” of quality.
- Improved ranking position helps attract funding.

## **7 Can Ranking Be Improved?**

- Give more weight to learning outcomes.
- Address non-journal publications.
- Ranking should cover more universities, not the elites only.
- Regional and national impact of learning and research outputs.

## **8 New Alignment in Ranking: Middle East and Africa**

There is a shift in international student mobility toward the Middle East because of the rise in institutional ranking of higher education. Therefore, universities in the Middle East are investing more resources in improving their world ranking [17].

As Africa is launching new socioeconomic development plans, improvements in higher education and R&D are essential for development. New reforms in higher education are in process to produce creative thinkers, innovators, and entrepreneurs to start up companies in the knowledge-based economy. Changes to meet economic and social demands have successfully initiated excellence and career education to a competitive standard for the marketplace. Internalization of universities in the region is on the march.

## 9 Top World Universities 2017–2018

### 9.1 Shanghai ARWU Academic Ranking of Top World Universities (2017)

Table 2 shows Shanghai ARWU Academic Ranking of top 10 world universities (2017) [18, 19]. Harvard (US) came as 1st in the world, Stanford (US) 2nd, Cambridge (UK) 3rd, MIT (US) 4th, University of California at Berkeley (US) 5th, Princeton (US) 6th, Oxford (UK) 7th, Columbia (US) 8th, Caltech (US) 9th, University of Chicago (US) 10th.

ARWU uses six indicators to rank world universities including number of alumni and staff winning Noble prizes and field medals, number of highly cited researchers and number of articles published in Nature and Science, and articles indexed in Science Citation Index and Social Sciences Citation Index. One thousand two hundred ten universities are ranked every year and best 500 are published. Shanghai ranking is an independent not legally linked to any university or government. It has been cited as starting point for national strengths and weaknesses, facilitating

**Table 2** ARWU-academic ranking of top world universities 2017

| World rank | Institution                                      | National rank | Total score | Score on alumni |
|------------|--|---------------|-------------|-----------------|
| 1          | Harvard University U.S.                          | 1             | 100.0       | 100.0           |
| 2          | Stanford University U.S.                         | 2             | 76.5        | 44.5            |
| 3          | University of Cambridge UK                       | 1             | 70.9        | 81.4            |
| 4          | Massachusetts Institute of Technology (MIT) U.S. | 3             | 70.4        | 68.7            |
| 5          | University of California, Berkeley U.S.          | 4             | 69.1        | 64.4            |
| 6          | Princeton University U.S.                        | 5             | 61.1        | 54.4            |
| 7          | University of Oxford UK                          | 2             | 60.1        | 50.8            |
| 8          | Columbia University U.S.                         | 6             | 58.8        | 62.8            |
| 9          | California Institute of Technology U.S.          | 7             | 57.3        | 50.5            |
| 10         | University of Chicago U.S.                       | 8             | 53.9        | 59.2            |

Source: Shanghai Ranking, ARWU (2017)

reforms and new initiatives. Its methodology is sound, stable, and transparent. It provides a fair comparison in research performance.

World Top Universities (2017) were from Australia, Austria, Belgium, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, Greece, Iran, Hong Kong, Ireland, Israel, Italy, Japan, Malaysia, Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Saudi Arabia, Singapore, Spain, South Africa, South Korea, Sweden, Taiwan, UK, and USA.

ARWU fields are Natural Sciences and Mathematics, Engineering/Technology and Computer Sciences, Life and Agriculture Sciences, Clinical Medicine and Pharmacy, Social Sciences.

ARWU academic subjects are Mathematics, Physics, Chemistry, Economics, Computer Science, & Engineering.

## 9.2 THE- Times Higher Education Ranking of Top World Universities 2018

Table 3 shows the top 10 world universities as ranked by Times Higher Education 2018. University of Oxford (UK) is leading as 1st in the world followed by Cambridge (UK) as 2nd followed by Caltech (US) as 3rd, Stanford (US) 4th, MIT (US), 5th, Harvard (US) 6th, Princeton (US) 7th, Imperial College (UK) 8th, University of Chicago (US) 9th, Swiss Federal Institute of Technology (Zurich) 10th.

**Table 3** THE-times higher education ranking of top world universities 2018

| Rank | Institution                                  | No. of FTE students | Ratio students per staff | %                      | Ratio       |
|------|--|---------------------|--------------------------|------------------------|-------------|
|      |  |                     |                          | International students | Female:Male |
| 1    | University of Oxford UK                      | 20,409              | 11.2                     | 38%                    | 46:54       |
| 2    | University of Cambridge UK                   | 18,389              | 10.9                     | 35%                    | 45:55       |
| =3   | California Institute of Technology US        | 2209                | 6.5                      | 27%                    | 31:69       |
| =3   | Stanford University US                       | 15,845              | 7.5                      | 22%                    | 42:58       |
| 5    | Massachusetts Institute of Technology US     | 11,177              | 8.7                      | 34%                    | 37:63       |
| 6    | Harvard University US                        | 20,326              | 8.9                      | 26%                    | n/a         |
| 7    | Princeton University US                      | 7955                | 8.3                      | 24%                    | 45:55       |
| 8    | Imperial College London UK                   | 15,857              | 11.4                     | 55%                    | 37:63       |
| 9    | University of Chicago US                     | 13,525              | 6.2                      | 25%                    | 44:56       |
| =10  | Swiss Federal Institute of Technology Zurich | 19,233              | 14.6                     | 38%                    | 31:69       |

Source: Times Higher Education, THE 2018



“THE” 2018 list the top 1000 universities in the world, the largest international league table.

It evaluates research-intensive universities across teaching, research, knowledge transfer and international outlook, with 13 performance indicators.

The Overall “THE” World University Rankings ([www.timeshighereducation.com/world-university-rankings/2018/world-ranking](http://www.timeshighereducation.com/world-university-rankings/2018/world-ranking)) accompanied by subject rankings in the following:

- Arts and humanities (subject –ranking/arts-and-humanities).
- Business and economics (subject –ranking/business-and-economics).
- Computer science (subject-ranking/computer-science).
- Engineering and technology (subject-ranking/engineering-and-IT).
- Life sciences (subject-ranking/life-sciences).
- Medicine (subject-ranking/clinical-pre-clinical-health).
- Physical sciences (subject-ranking/physical-sciences).
- Social sciences (subject-ranking/social-sciences).

Ranking can be filtered by country and each university has a detailed profile to help students. ([www./student/advice](http://www./student/advice)).

### 9.3 *QS Ranking of Top World Universities 2018*

Table 4 shows the QS ranking of top 10 world universities (2018). MIT (US) is leading as 1st in the world followed by Stanford (US) as 2nd, followed by Harvard (US) 3rd, Caltech (US) 4th, Cambridge (UK) 5th, Oxford (UK) 6th, University College London (UK) 7th, Imperial College (UK) 8th, University of Chicago (US) 9th, Swiss Federal Institute of Technology (Zurich) 10th.

Looking at QS ranking of top universities in the world, we find a trend of continuity and stability in maintaining the positions, of the top ten. There is a slight shift among them, but they always occupy the top positions. Nine UK universities and US were on the top of the World, Switzerland occupied the tenth position. In addition to the Ranking overview (QS – World – University – Rankings), there is QS Ranking by subject and region:

- QS World University Rankings by Subject (</subject-rankings/2018>).
- QS World University Rankings by Region (</region-rankings/2018>).
- QS Top 50 under 50 (</top-50-under-50>).
- QS Stars Rating system (<http://www.topuniversities.com/qs-stars/home>)

#### **Events (events):**

- QS Graduate Employability Rankings.
- (<https://www.topuniversities.com/university-rankings/employability-rankings/2018>)
- QS Best Student Cities (</best-student-cities>),

**Table 4** QS ranking of top world universities 2018

| Rank | University  | Overall score | Academic reputation | Citation per faculty | Employer reputation | International faculty | International students |
|------|---|---------------|---------------------|----------------------|---------------------|-----------------------|------------------------|
| 1    | Massachusetts Institute of Technology (MIT) U.S.  | 100           | 100                 | 99.9                 | 100                 | 100                   | 96.1                   |
| 2    | Stanford University U.S.                          | 98.7          | 100                 | 99.4                 | 100                 | 99.6                  | 72.7                   |
| 3    | Harvard University U.S.                           | 98.4          | 100                 | 99.9                 | 100                 | 96.5                  | 75.2                   |
| 4    | California Institute of Technology (Caltech) U.S. | 97.7          | 99.5                | 100                  | 85.4                | 93.4                  | 89.2                   |
| 5    | University of Cambridge UK                        | 95.6          | 100                 | 78.3                 | 100                 | 97.4                  | 97.7                   |
| 6    | University of Oxford UK                           | 95.3          | 100                 | 76.3                 | 100                 | 98.6                  | 98.5                   |
| 7    | University College London (UCL) UK                | 94.6          | 99.7                | 74.7                 | 99.5                | 96.6                  | 100                    |
| 8    | Imperial College London UK                        | 93.7          | 99.4                | 68.7                 | 100                 | 100                   | 100                    |
| 9    | University of Chicago U.S.                        | 93.5          | 99.9                | 85.9                 | 92.9                | 71.9                  | 79.8                   |
| 10   | ETH-Zurich-Swiss Federal Institute of Technology  | 93.3          | 99.6                | 98.7                 | 99.4                | 100                   | 98.8                   |

Source: Qs Ranking 2018

- QS System Strength Rankings (/system-strength-rankings/2016),
- Related articles (/university –rankings-articles/world-university-rankings).
- Prepare (<http://www.qsleep.com/>).

**Discover (universities):**

- University search (/universities).
- Subject guides (/courses).
- Study destination guides (/where-to-study/home).
- Scholarship advice (/student-info/scholarship-advice).

## 10 Top Universities in the Arab Region 2017–2018

### 10.1 *Shanghai ARWU Ranking of Top Universities in the World 2017*

There was no single Arab university in the top 100.

ARWU Ranking of leading universities in the Arab region were King Abdulaziz University (101–150), King Saud University (101–150), King Abdullah University of Science & Technology (201–300), King Fahad University of Petroleum & Minerals (401–500), Cairo University (401–500).

They came all in the category of 100–500 World rank (Table 5).

Qatar University, Ain Shams University, and Alexandria University came in the second category of 600–800 World rank (Table 6).

Arab Universities have a long way to catch up with ARWU criteria and standard, in term of excellence in research and teaching [20].

### 10.2 *For THE-Times Higher Education Universities Ranking of the Arab Region (2018) [19]*

KAS (SA) came out first followed by Khalifa University (UAE) 2nd, followed by JUST (Jordan) 3rd, Qatar University 4th, AUB 5th, KFU (SA) 6th, KSU (SA) 7th, UAE University 8th, Alfaisal University (SA) 9th, Kuwait University 10th, THE World rankings of Universities top 16 in the region were in the category margin of (200–1000) world ranking as shown in Table 7.

**Table 5** ARWU Arab region ranking of top universities 2017

| World rank | Institution  | National rank | Score on alumni |
|------------|--|---------------|-----------------|
| 101–150    | King Abdulaziz University                          | 1–2           | 0.0             |
| 101–150    | King Saud University                               | 1–2           | 0.0             |
| 201–300    | King Abdullah University of Science and Technology | 3             | 0.0             |
| 401–500    | King Fahd University of Petroleum & Minerals       | 4             | 0.0             |
| 401–500    | Cairo University                                   | 1             | 19.0            |

Source: Shanghai Ranking ARWU 2017

Note: No Arab Universities in Top 100

**Table 6** Top 501–800 Arab universities 2017

| World rank | Institution           | Score on alumni |
|------------|-----------------------|-----------------|
| 601–700    | Qatar University      | 0.0             |
| 701–800    | Ain Shams University  | 0.0             |
| 701–800    | Alexandria University | 12.4            |

Source: Shanghai Ranking ARWU 2017

**Table 7** THE-times higher education Arab region ranking of top universities 2018

| World univ. ranking | Arab region ranking | University                                     |
|---------------------|---------------------|--|
| 201–250             | 1                   | King Abdulaziz University SA                   |
| 301–350             | 2                   | Khalifa University UAE                         |
| 401–500             | 3                   | Jordan University of Science and Technology JO |
| 401–500             | 4                   | Qatar University QR                            |
| 501–600             | 5                   | American University of Beirut LB               |
| 501–600             | 6                   | King Fahd University SA                        |
| 501–600             | 7                   | King Saud University SA                        |
| 501–600             | 8                   | United Arab Emirates University UAE            |
| 501–600             | 9                   | Alfaisal University SA                         |
| 601–800             | 10                  | Kuwait University KT                           |
| 601–800             | 11                  | American University in Cairo Egypt             |
| 601–800             | 12                  | Beni-Suef University Egypt                     |
| 601–800             | 13                  | American University of Sharjah UAE             |
| 801–1000            | 14                  | University of Jordan JO                        |
| 801–1000            | 15                  | Imam Abdulrahman Bin Faisal University SA      |
| 801–1000            | 16                  | University of Sharjah UAE                      |

Source: Times Higher Education for the Arab region, THE 2018

### ***10.3 For QS Arab Region Ranking of Top Universities (2018)***

AUB came out first followed by KFUPM (SA) 2nd, KSU (SA) 3rd, KAU (SA) 4th, UAE University 5th, AUC (Egypt) 6th, Qatar University 7th, University of Sharjah (UAE) 8th, University of Jordan 9th, Sultan Qabus University 10th as shown in Table 8.

#### **10.3.1 QS Arab Regional Ranking of Universities (2018)**

- Two hundred fourteen universities from 16 Arab countries were carefully evaluated by QS.
- Universities from those Arab countries have improved data collection exercises.
- As a results new regional leader emerged, as Sultan Qabus University.

**Table 8** QS Arab region ranking of top universities 2018

| Arab region ranking | University   | Overall score | Academic reputation | Employer reputation | Faculty student | International faculty | International students | Faculty staff with PHD | Web impact | Papers per faculty | Citations per papers |
|---------------------|--|---------------|---------------------|---------------------|-----------------|-----------------------|------------------------|------------------------|------------|--------------------|----------------------|
| 1                   | American University of Beirut (AUB)                  | 100           | 99                  | 100                 | 95.7            | 74.4                  | 80.5                   | 97.8                   | 99         | 96.6               | 87.1                 |
| 2                   | King Fahd University of Petroleum & Minerals (KFUPM) | 99.2          | 99.9                | 96.4                | 100             | 90.1                  | 64.2                   | 70.8                   | 93.6       | 100                | 98                   |
| 3                   | King Saud University (KSU)                           | 99            | 100                 | 95.1                | 99.7            | 70.6                  | 32.9                   | 99                     | 100        | 97.9               | 86.1                 |
| 4                   | King Abdul Aziz University (KAU)                     | 97.5          | 99.8                | 86.2                | 96.5            | 73.2                  | 79.1                   | 80.8                   | 100        | 98.9               | 99.5                 |
| 5                   | United Arab Emirates University                      | 93.7          | 97.1                | 83.2                | 89.4            | 95.2                  | 85.9                   | 100                    | 84.2       | 95.8               | 84.4                 |
| 6                   | American University in Cairo                         | 90.8          | 99.8                | 98.7                | 79.7            | 55.1                  | 13.3                   | 93.4                   | 98.5       | 83.2               | 36.1                 |
| 7                   | Qatar University                                     | 89.7          | 87                  | 76.3                | 94.1            | 96                    | 99.9                   | 100                    | 88.2       | 91.4               | 65.2                 |
| 8                   | American University of Sharjah                       | 87.7          | 98.4                | 98.5                | 57.9            | 99.9                  | 100                    | 100                    | 53         | 98.3               | 75.5                 |
| 9                   | University of Jordan                                 | 84.4          | 97.6                | 73.7                | 55.6            | 15.2                  | 51.6                   | 100                    | 98.3       | 56.2               | 44                   |
| 10                  | Sultan Qaboos University                             | 83.9          | 83.1                | 99.9                | 94.9            | 88.6                  | 10.6                   | 100                    | 69.6       | 96.6               | 63.2                 |
| 11                  | Cairo University                                     | 80.9          | 100                 | 99.9                | 49              | 2.1                   | 16                     | 73.5                   | 99.5       | 32.5               | 54.7                 |

(continued)

Table 8 (continued)

| Arab region ranking | University                                  | Overall score | Academic reputation | Employer reputation | Faculty student | International faculty | International students | Faculty staff with PHD | Web impact | Papers per faculty | Citations per papers |
|---------------------|---|---------------|---------------------|---------------------|-----------------|-----------------------|------------------------|------------------------|------------|--------------------|----------------------|
| 12                  | University Saint-Joseph De Beyrouth         | 76.3          | 70                  | 90.2                | 97.2            | 31.7                  | 20.2                   | 32.4                   | 82.8       | 22                 | 59.4                 |
| 13                  | University of Baghdad                       | 75.9          | 97.8                | 75.6                | 87              | –                     | –                      | 85.6                   | 50.6       | –                  | 35.4                 |
| 14                  | Jordan University of Science and Technology | 75.5          | 93.8                | 94.6                | 50.3            | 6.8                   | 77.3                   | 74.4                   | 48.1       | 42                 | 62.3                 |
| 15                  | Alexandria University                       | 74.7          | 97.2                | 97.6                | 35.8            | 1.5                   | 9                      | 69.4                   | 87         | 18.8               | 59.7                 |
| 16                  | Lebanese American University                | 73.6          | 71.6                | 94                  | 60.9            | 61.8                  | 72.2                   | 66.4                   | 59.3       | 42.2               | 78.9                 |

Source: QS Ranking for the Arab region, 2018

### 10.3.2 QS Methodology (2018)

- Capture elements more central to university mission.
- Robustness of metrics reliant on bibliometric data.
- Two indicators are central:
  1. Papers per faculty measures research output.
  2. Citations per paper measures research impact.
- Medicine, engineering and life sciences produce far greater number of citations, than those from English, Languages and other subjects in the Humanities.
- Two center pieces in Arab ranking:
  - *Academic reputation* (30%)
  - *Employer reputation* (20%), to prepare graduates for growing economies.
- Faculty-student ratio is used for quality teaching (20%).

### 10.4 QS Overview of Arab Region University Rankings (2018)

- AUB is the new regional leader (2018).
- AUB is the oldest in the Arab region after Al-Azhar University in Egypt.
- AUB reputation indicator among employers and alumni was strongest and the highest among alumni and employers.
- Seven universities from Lebanon have been ranked in the top 50 in the Arab region and the nation's lowest-ranked institution was Beirut Arab University.
- Saudi Arabia remains the national strongest performer, with three of its universities in the top four: KFUPM, KSU, KAU.
- There is a gap in research output between universities in the region and others in the world.
- QS measure of research output refers to 2011–2015, thus it takes sometime for data to appear.
- The American University of Cairo scored highest in international faculty and research indicators, while Cairo University came second high for solid reputation. Egyptian universities achieved high score for employer reputation.
- The top 10 Arab universities for employer-reputation included two from Lebanon and UAE, and one from Jordan.
- UAE has a national reputation for internationally mobile professionals. UAE is the home to 12 institutions of high-repute international faculty and 5 institutions with highest numbers of international students.
- On research, Kalifa University, American University of Sharjah, and UAE University lead their peers ranked 2nd, 6th, and 10th respectively in papers per faculty indicator.

- University of Jordan (UJ) remains within the top 10 in the region. University of Jordan scored well in reputation, web impact, staff with Ph.D., and papers per faculty indicator. However, (UJ) was not strong for internationalization metrics or faculty-student ratio indicator, which is also apparent in large national universities across Jordan, Egypt, Algeria, and Palestine. Iraqi Universities are stronger for the faculty-student ratio but scored less for research indicators.
- Qatar University is rising from 9th to 6th with strong results in indicators of web impact 11th and citation per faculty 21st. For web impact, Saudi, Lebanese, Egyptian and Jordanian Universities lead Qatar University (lens of webometrics).
- QS Maple 2018 Middle East annual summit for the advancement of University excellence in all its forms held in Manama, Bahrain, in March 2018, observed a surge in the number of international students choosing to pursue higher education in the Middle East due to the investment of greater resources to advance regional and international rankings.
- There is no doubt that University ranking in the Arab region has enhanced their competitiveness within the region and for the global higher educational market.

## 11 Ranking of Top Universities in Jordan

### 11.1 THE–Times Higher Education Ranking

The top universities in Jordan in 2018 were Jordan University of Science & Technology (JUST) which came out 1st (World ranked 401–500), University of Jordan (JU) came out 2nd (World rank 801–1000), and Hashemite University came out 3rd (World rank 1001+), as shown in Table 9.

**Table 9** THE-times higher education ranking of top universities in Jordan 2018

| Rank     | Name   | No. of FTE students | Ratio students per staff | %                      |              |
|----------|--|---------------------|--------------------------|------------------------|--------------|
|          |  |                     |                          | International students | Female: Male |
| 401–500  | Jordan University of Science Technology Jordan | 23,103              | 12.6                     | 20%                    | 57: 43       |
| 801–1000 | University of Jordan                           | 31,278              | 16.0                     | 14%                    | 65: 35       |
| 1001+    | Hashemite University Jordan                    | 24,958              | 25.7                     | 4%                     | 38           |

Source: Times Higher Education 2018



## ***11.2 QS Ranking of Top Ten Universities in Jordan***

University of Jordan (UJ) came 1st, then Jordan University of Science & Technology (JUST) came 2nd, followed by Yarmouk University (YU) 3rd, Princess Sumaya University of Technology 4th, Hashemite University 5th, University of Petra (UOP) 6th, Applied Science University (ASU) 7th, German Jordanian University 8th, Philadelphia University 9th, and Al-Zaytoonah University 10th, as shown in Table 10.

There is similarity in the evaluation and assessment of UJ, JUST, and Hashemite Jordanian Universities in the criteria of THE and QS indicators & standards. If we add Yarmouk University that appeared 3rd in the QS ranking, then those four public universities dominate higher education in Jordan.

Private universities appear only on the QS rankings, where Princess Sumaya University is leading, followed by Petra (UOP), Applied Science University, Philadelphia, and Zaytoonah as shown in Table 10.

## **12 Jordanian Ranking: New System for Universities 2016–2017, Criteria and Procedures**

The Jordan Accreditation and Quality Assurance Commission for Higher Education Institutions [21] developed five performance criteria, which are in line with leading international rankings (particularly Shanghai, QS and Times Higher Education) and will lead to excellence: teaching and learning (score 250), scientific research (score 250), internationalization (score 150) quality of graduates (score 200), academic accreditation (score 150), as shown in Table 11. An overall score which is calculated as the sum of the scores in all 29 indicators out of 1000 scores (Table 11).

## **13 Results of Jordanian Academic Ranking of Universities 2017**

The outcome of the overall ranking of Jordanian Universities (Table 12) was officially announced for the first time in December 2017, with five stars as the highest rank and one star as the lowest rank after implementing the criteria and indicators in Table 11.

However, due to political pressure from the Jordanian Parliament, the Commission was forced to cancel the ranking outcome and delay the process for 5 years to give a better chance for those universities who did not make it in the first round.

As shown in Table 12, Four Universities received the highest ranking of five stars among Jordanian Universities: University of Jordan, German-Jordanian University, Princess Sumaya University for Technology and Jordan University of Science & Technology, as shown in Table 12. Three Universities received the four stars in the

**Table 10** QS ranking of top Jordan universities 2018

| Arab region ranking | University   | Overall score | Academic reputation | Employer reputation | Faculty students | Intl. faculty | Intl. students | Faculty staff with PHD | Web impact | Papers per faculty | Citations per papers |
|---------------------|--|---------------|---------------------|---------------------|------------------|---------------|----------------|------------------------|------------|--------------------|----------------------|
| 9                   | University of Jordan (UJ)                          | 84.4          | 97.6                | 98.5                | 55.6             | 15.2          | 51.6           | 100                    | 98.3       | 56.2               | 44                   |
| 14                  | Jordan University of Science and Technology (JUST) | 75.5          | 93.8                | 94.6                | 50.3             | 6.8           | 77.3           | 74.4                   | 48.1       | 42                 | 62.3                 |
| 29                  | Yarmouk University (YU)                            | 56.2          | 78.8                | 62.8                | –                | 4.3           | 34             | 99.6                   | 66.7       | 40.1               | 24.7                 |
| 46                  | Princess Sumaya University of Technology (PSU)     | 43.3          | 40.2                | 53.6                | 38.8             | 17.5          | 49.1           | 94.6                   | 25.3       | 41.8               | –                    |
| 48                  | The Hashemite University (HU)                      | 42.3          | 57.2                | 49.7                | –                | 3.5           | 14.3           | 41                     | 34.5       | 65.7               | 53.4                 |
| 61–70               | University of Petra (UOP)                          | –             | 30.6                | 28.4                | –                | 16.3          | 90.4           | 96.4                   | 46.8       | 20.4               | –                    |
| 71–80               | Applied Science Private University (ASU)           | –             | –                   | 15.9                | 47.5             | 25.6          | 100            | 94.8                   | –          | 28.4               | 44.7                 |
| 71–80               | German Jordanian University (GUJ)                  | –             | 15.9                | 28.7                | 54.5             | 38.9          | 55.3           | –                      | 19.5       | 38.7               | 49.1                 |
| 71–80               | Philadelpia University of Jordan (PU)              | –             | –                   | 20.5                | 29.1             | 26.4          | 99.8           | 90.5                   | 61.7       | 18.7               | 24.2                 |

|        |                                     |   |   |      |      |      |      |      |      |      |      |
|--------|-------------------------------------|---|---|------|------|------|------|------|------|------|------|
| 81-90  | Zaytoonah University of Jordan (ZU) | - | - | 16.1 | 38.1 | 12.7 | 80.8 | 62.5 | -    | 10.2 | 89.8 |
| 81-90  | Amman Arab University (AAU)         | - | - | 13   | 60   | 13   | 95.5 | 100  | -    | -    | -    |
| 91-100 | Balqa Applied University (BAU)      | - | - | 20.8 | -    | 34.8 | 12.7 | 53.1 | 55.1 | 24.7 | 35   |
| 91-100 | Ahliyya Amman University (AAU)      | - | - | 20.3 | -    | 36.1 | 100  | 98.8 | 25.5 | 18.6 | -    |

Source: Qs Ranking 2018

**Table 11** Jordanian ranking criteria for universities (Accreditation and Quality Assurance Commission of Jordan 2016–2017)

| No.   | Indicator   | Score |
|---|---|-------|
| <b>Criterion one: teaching and learning (score: 250)</b>            |   |       |
| 1–1   | Ratio staff to students   | 50    |
| 1–2   | Academic load   | 50    |
| 1–3   | Electronic-blended learning   | 50    |
| 1–4   | Academic degrees  | 25    |
| 1–5   | Admission policy  | 25    |
| 1–6   | Student satisfaction  | 50    |
| <b>Criterion two: scientific research (score: 250)</b>              |   |       |
| 2–1   | Graduate studies programs   | 40    |
| 2–2   | Research citations  | 40    |
| 2–3   | Research output per staff member  | 40    |
| 2–4   | External funding for scientific research projects                               | 35    |
| 2–5   | Scientific research allocations per staff member                                | 35    |
| 2–6   | Full-time researchers   | 30    |
| 2–7   | Patents   | 20    |
| 2–8   | Refereed scientific journals  | 10    |
| <b>Criterion three: internationalization (score: 150)</b>           |   |       |
| 3–1   | International students  | 20    |
| 3–2   | Visiting students   | 20    |
| 3–3   | Members of the editorial boards of international journals                       | 15    |
| 3–4   | Foreign teaching and research staff members                                     | 20    |
| 3–5   | Sabbatical leaves at international universities                                 | 15    |
| 3–6   | Research output published in the proceedings of international conferences       | 20    |
| 3–7   | Joint research  | 20    |
| 3–8   | Joint or hosted teaching programs   | 20    |
| <b>Criterion four: quality of university graduates (score: 200)</b> |   |       |
| 4–1   | Employers' knowledge of graduates' reputation                                   | 75    |
| 4–2   | Ratio of Graduates' employment  | 75    |
| 4–3   | Ratio of Graduates' enrollment in graduate studies programs                     | 50    |
| <b>Criterion five: academic accreditation (score: 150)</b>          |   |       |
| 5–1   | Local Quality Assurance Certificate for the university                          | 40    |
| 5–1   | Rankings and international Quality Assurance Certificates for the university    | 40    |
| 5–3   | Local quality assurance certificate for academic programs                       | 35    |
| 5–4   | External accreditation and quality assurance certificates for academic programs | 35    |

Source: Accreditation and Quality Assurance Commission for Higher Education Institutions (2017). Jordanian Ranking for Universities Criteria & Procedures, 2016–2017. Amman, Jordan

**Table 12** Analysis of the classification (ranking) of Jordanian Universities (2017)

| Rank | University                                | Category – stars at the University level | Education and learning       | Research                     | International dimension      | Quality graduates            | Academic accreditation       |
|------|---|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
|      | Tags                                      |  | 300 tags within 5 indicators | 300 tags within 6 indicators | 100 tags within 5 indicators | 150 tags within 3 indicators | 150 tags within 4 indicators |
|      | % Stars                                   |  | %30                          | %30                          | %10                          | %15                          | %15                          |
| 1    | University of Jordan                      | 5  | 5                            | 4                            | 3                            | 5                            | 2                            |
| 2    | German Jordanian University               | 5  | 5                            | 4                            | 5                            | 5                            | 1                            |
| 3    | Princess Sumaya University for Technology | 5  | 5                            | 4                            | 4                            | 5                            | 2                            |
| 4    | Jordan University of Science & Technology | 5  | 5                            | 5                            | 4                            | 4                            | 4                            |
| 5    | Hashemite University                      | 4  | 4                            | 4                            | 2                            | 4                            | 2                            |
| 6    | University of Petra                       | 4  | 4                            | 2                            | 3                            | 4                            | 4                            |
| 7    | Applied Science University                | 4  | 4                            | 2                            | 4                            | 4                            | 1                            |
| 8    | American University of Madaba             | 3  | 5                            | 2                            | 2                            | 4                            | 1                            |
| 9    | Balqa Applied University                  | 3  | 4                            | 3                            | 1                            | 5                            | 1                            |
| 10   | Aarqa National University                 | 3  | 5                            | 1                            | 3                            | 3                            | 1                            |
| 11   | Zaytoonah University of Jordan            | 3  | 4                            | 1                            | 4                            | 4                            | 2                            |
| 12   | Middle East University                    | 3  | 5                            | 1                            | 4                            | 4                            | 1                            |
| 13   | Yarmouk University                        | 3  | 5                            | 2                            | 1                            | 3                            | 1                            |

(continued)

**Table 12** (continued)

| Rank | University  | Category – stars at the University level | Education and learning       | Research                     | International dimension      | Quality graduates            | Academic accreditation       |
|------|---|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
|      | Tags  |  | 300 tags within 5 indicators | 300 tags within 6 indicators | 100 tags within 5 indicators | 150 tags within 3 indicators | 150 tags within 4 indicators |
|      | %   |  |                              |                              |                              |                              |                              |
|      | Stars   |  | %30                          | %30                          | %10                          | %15                          | %15                          |
| 14   | Amman Arab University                             | 3  | 5                            | 1                            | 3                            | 4                            | 1                            |
| 15   | Mutah University                                  | 3  | 4                            | 3                            | 1                            | 4                            | 1                            |
| 16   | Isra University                                   | 2  | 4                            | 1                            | 3                            | 4                            | 1                            |
| 17   | Hussein Bin Talal University                      | 2  | 4                            | 2                            | 1                            | 3                            | 1                            |
| 18   | Albayt University                                 | 2  | 4                            | 2                            | 1                            | 4                            | 1                            |
| 19   | Jerash University                                 | 2  | 4                            | 1                            | 3                            | 3                            | 1                            |
| 20   | Ahliyya Amman University                          | 2  | 4                            | 1                            | 4                            | 3                            | 1                            |
| 21   | Philadelphia University                           | 2  | 4                            | 2                            | 4                            | 3                            | 1                            |
| 22   | Irbid National University                         | 1  | 4                            | 2                            | 2                            | 1                            | 1                            |
| 23   | Tafila Technical University                       | 1  | 4                            | 1                            | 1                            | 3                            | 1                            |
| 24   | The World Islamic Sciences & Education University | 1  | 4                            | 1                            | 2                            | 4                            | 1                            |
| 25   | Jadara University                                 | 1  | 4                            | 1                            | 2                            | 2                            | 1                            |
| 26   | Ajloun National University                        | 1  | 5                            | 1                            | 1                            | 1                            | 1                            |

next category: Hashemite University, University of Petra, and Applied Science University. Eight Universities received three stars in the 3rd category; Six Universities received two stars in the 4th category; and five Universities received one star in the 5th category (Table 12).

In conclusion, ranking of universities at the global, regional, and local levels will lead to competition among higher institutions for quality in teaching/learning, research and innovation and the delivery of the vehicles for development, and we have to take the process seriously at all levels.

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