The Effect of International University Rankings on King Khalid Universities' Performance

Abdulaziz Saeed Alqahtani

Associate professor, Educational Leadership, King Khalid University, Saudi Arabia. E-mail: aalqahtni@kku.edu.sa

Abstract: This paper seeks to describe as a case study the current objective of King Khalid University, Saudi Arabia, of improving its global ranking in higher education league tables. As stated in the *Saudi Vision 2030*, a broad governmental plan to diversify the Saudi economy and develop aspects of the social sector, an increased emphasis on education is paramount to meeting demands of a changing workforce. This paper examines the situation of King Khalid University (KKU), a public research university, as the institution pursues a spot in the QS top 100 of globally ranked universities. The criteria considered in the construction of global ranking are discussed, as are the steps KKU has taken to improve its ranking position as well as the consequences of this pursuit on the climate and culture of the institution. Several recommendations are presented which seek to inform the university's goal of academic excellence in both Saudi Arabia and at a global level.

Keywords: university rankings, league tables, vision, higher education, excellence

https://doi.org/10.24193/JRHE.2019.1.1

Introduction

The *Saudi Vision 2030* is a government plan whose objective is to diversify the Saudi Arabian economy, predominantly aimed at utilizing the nation's range of natural resources rather than depending solely on its oil. The plan seeks to further develop much of the public sector including an increased emphasis on services such as health, infrastructure, tourism, and, most salient to this study, education.

Ultimately, the *Saudi Vision 2030* seeks to enhance the nation's economy through the preparation of future leaders in business and infrastructure and emphasizes improved education standards in the pursuit of such goals. One such objective is "an education that contributes to economic growth" through the creation of new and innovative benchmarks for the schooling of the youth of Saudi Arabia. Such elements are vital to achieving the *Saudi Vision 2030*, "an ambitious yet achievable blueprint which expresses our long-term goals and expectations and reflects our country's strengths and capabilities." While the Saudi economy is currently focused on crude oil production, a host of other natural resources including gold, phosphate, uranium, and other valuable minerals remain largely underexploited (Chairman of the Council of Economic and Development Affairs, *Saudi Vision 2030*, 2017).

An emphasis on educational policies demands the investment of intellectual and economic resources from various sectors of Saudi society, and in turn, will ultimately better prepare Saudi citizens to address a changing national and geopolitical climate. The 2030 Plan outlines strategic parameters which, in regards to curriculum reform and revamped pedagogical practices, seek to ultimately elevate the entire Saudi system of education to the status of "global leader." The plan uses several quantitative measures to meet this outwardly qualitative goal, including a series of well-established global ranking systems for universities and post-secondary schools.

As such, the stated aim of the Kingdom of Saudi Arabia (KSA) is to place at least five Saudi universities in the top 200 universities in international rankings (*Saudi Vision 2030*, 2017). The application of new teaching strategies and methodologies, better access to learning resources, and an emphasis on accreditation programs will ideally help Saudi students achieve results, which, in turn, will lead to inclusion in such rankings. King Khalid University (KKU) aspires to be one of the five Saudi Universities ranked in the top 200 at global level. As such, KKU has recently established a department dedicated to the study of performance indicators for international rankings. Among the ranking systems outlined in the 2030 Strategic Plan are *QS World University Rankings, Academic Ranking of World Universities (ARWU), US News Education*, and *Webometrics*.

The Saudi Ministry of Education (which also includes higher education) was established in 1975, to execute the kingdom's policy on higher education. The Minister of Education is responsible for the implementation of the government's educational policy. There are currently 30 public universities in KSA which are geographically distributed in different regions of KSA. While all these universities are governed by the Ministry of Education (MoE), they now enjoy a great deal of administrative and academic autonomy. There are also 13 private universities and 42 private higher education colleges, as well. Support for these institutions is provided by specialized research institutes; moreover, several scientific seminars and conferences are organized in these universities for knowledge dissemination. The MoE aims to provide opportunities for the teaching staff members in Saudi universities for participating in specialized scientific activities (Ministry of Education, 2019).

King Khalid University (KKU) is considered one of the best educational institutions in the Kingdom of Saudi Arabia. Since its establishment in 1998, it has been offering the best higher education programs; many of the top leaders in Saudi Arabia are graduates of KKU and have contributed to the development of the country. KKUs' vision is

to be in the top 200 universities worldwide by 2030 (King Khalid University, 2019).

The KKU department has determined the major criteria that factor into each ranking system: teaching quality, research performance, graduate employability, and internationalization. In its pursuit of an improved ranking position, KKU is determined to develop and enhance the quality of teaching by offering cutting-edge methodologies which, in turn, develop the capabilities of students and offer them the tools necessary to adapt to a changing job market. The hiring and employment of qualified faculty members is also a priority, as is ensuring that current KKU faculty and staff are all of the highest qualified backgrounds and have an experience that enriches the quality of education offered at the university. Additionally, internationalization and diversity are among the pillars of the *Vision 2030* plan. An emphasis on diversity will help expand students' knowledge of the world and create an environment that will support creativity and unity in both the classroom and in the workforce. In addition, KKU has commenced an overhaul of its academic curriculum with the objective of becoming a standard-based curriculum, while dedicating resources to achieving rigorous standards in literacy, numeracy, skills, and character development.

Research questions

This paper seeks to review the QS World University Rankings standing of KKU between 2015 and 2017 in both the Global and the Arab Regional rankings. This is followed by a discussion concerning the relevance and practicality of performance indicators, and it will conclude with some recommendations concerning KKU's pursuit of a better ranking position.

Literature review

The independent assessment of the status of an institution of higher education is problematic, so much so that in the last two decades, there has been a plethora of university rankings claiming to correctly quantify it, although what actually is being measured is still debatable (Massucci & Docampo, 2019). The major issue with the present university rankings is the absence of methodological details and little information on what actually is measured (Loughran, 2016). Despite their success in the United States, and a frenzied fascination in the institutions of higher education in Asia, universities in Europe are not so obsessed with the ranking systems (Nedeva, Barker & Osman, 2014).

To start with, we will briefly present a discussion of previous research, which discusses the nature and effectiveness of university rankings. Blanca L. (2011) investigates the concept and practice of internationalization in institutions from both theoretical and quantitative perspectives. The study compares the methodology of three widely circulated higher education rankings: Times Higher Education Supplement, Academic Ranking of World Universities, and Webometrics Rankings. The results show that the weight of internationalization in the aggregate or "overall" score is limited and that the scores related to internationalization typically have little emphasis on the final ranking position. Other aspects, such research quality, weigh more heavily in the final ranking or institutions (Vernon, Balas & Momani, 2018). In addition, the metrics used in internationalization rankings, such as the ratio of international to domestic faculty members and the ratio of international to domestic students, do not adequately reflect the main variables involved in their internationalization processes.

Mu-Hsuan Huang (2011) compares the Performance Ranking of Scientific Papers among three ranking systems, namely the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT), Shanghai Jiao Tong University (ARWU) and the QS World University

Ranking (QS). The discrepancy in results shows that each publication compiles a different list of top 20 universities in the three ranking systems. The one exception is the case of Harvard University in Cambridge, USA, which was ranked first in all three rankings. Comparisons also reveal that the QS rankings tend to favor UK universities. Furthermore, differences are obvious between QS and the other two ranking systems, which favor ranking institutions in some European countries (Germany, UK, Netherlands, & Switzerland) and Chinese-speaking regions.

First, it is worth noting the ways in which accreditation may impact the culture of an organization. Manuel P. Teodoro (2012) identifies two factors for which the pursuit of accreditation might impact members: (1) by socializing employees and (2) by signaling the agency's priorities to employees. A positive impact on the employees' professional relationships is one of the benefits of accreditation, as encouraging employees to utilize each other's expertise and experiences creates an opportunity for the exchange of talents and referral of information. Analyzing attitudinal data from officers in six American police departments, this study found no association between accreditation and the officers' personal values but found that accreditation was strongly correlated with the officers' perceptions of the priorities and professional objective of their agencies and therefore encouraged aspects of professional development separate from personal politics.

Among the presupposed tenets of higher education are the quality of teaching, the level of knowledge (i.e. the available intellectual material) provided by the institution, and the methodologies used in conveying such knowledge. From an institutional point of view, the values, skills, and quality of education required to meet the expected outcomes are all among the strategies of higher education ranking; according to Kuh (2008), these are collectively understood as learning outcomes or graduate attributes. Universities in the 21st century seek to produce education that qualifies students to contribute to both the

growth of their domestic economies and the international market; fostering skills in a quality education environment has proven successful in many societies (Malik, 2018).

Although the quality of education provided is essential to both the personal and professional success of a university, the Academic Ranking of World University, also known as the Shanghai Ranking, does not measure university size, student to staff ratio, amount of (student graduate) degree holders, and teaching quality among the factors of ranking whereas these hold an elevated position in the U-Multirank ranking system. Though the quality of teaching is a critical element of education, the Shanghai Ranking, and most of the others, do not include this metric in the ranking of universities (Vernon, Balas & Momani, 2018). As such, the U-Multirank ranking emphasizes more quantitative aspects of the university. This type of ranking includes measuring student satisfaction levels and impressions of programs, program research, evaluation of teaching facilities, quality of courses offered, support by teachers as well as other indicators, these indicators were developed in relevance to validity, reliability, comparability, and feasibility (Van Vught and Ziegele, 2011).

Faculty to student ratios is a well-established factor in the quality of education (Koc & Celik, 2015). Just as the number of students enrolled in a program is vital to the program's ranking and accreditation, the faculty to student ratio is beneficial to the reputation of the institution that they belong to. The transition of a program from granting solely bachelor's degrees to a program that includes doctoral degrees requires a specific quality of teaching. In many cases, a marked increase in the number of students enrolled in a program may correlate to an increase in the number of faculty members in that department, though not necessarily equally balanced to meet the needs of the new number of students. Such transitions of the degree program do not necessarily provide opportunities for the educators in the department to develop adequate training (and, in some cases, opportunities to

further their own education commensurate with the elevated degree-granting program).

Of course, faculty productivity and student performance are not always related to the faculty to student ratio. In a study of the impact of student-faculty ratio on pharmacy faculty scholarship at the College of Pharmacy, Nova Southeastern University, the student-faculty ratio was shown to not have an impact on faculty scholarships and research. Faculty scholarship is not based on student-faculty ratio, but on other factors that contribute to the process, including faculty clinical presence, lectures and programs in public universities (Benavides, S., 2010).

Accreditation standards and guidelines do not demand a certain student-faculty ratio but emphasize that the faculty of the program are qualified to deliver quality education, which was addressed above in the study cited, showing that the increase in the number of enrolled students was not related to faculty numbers. However, public universities may have different infrastructure when compared to private colleges such as Nova Southeastern.

According to Ronald B. H. (2011), the term "institutional effectiveness" was developed in response to an increased emphasis on accreditation. To a large extent, a focus on accreditation drives institutional effectiveness efforts in community college campuses. Although accreditation is often viewed internally as onerous or as a burdensome external requirement, it confers a number of benefits to an institution. An accredited college or university may more accurately ascertain the value and equivalency of transfer credits and assist in meeting one of several potential criteria for obtaining federal funding and assistance.

In summary, the literature review reveals that there are different aspects of university ranking and that different ranking systems have their own criteria for ranking. The reviewed literature also explored some of the important criteria employed for the ranking system used by King Khalid University (KKU). It is apparent that KKU needs to assess its

quality based upon the requirements of the QS ranking system since another ranking system might have a different set of criteria.

Research Questions:

What are the challenges facing KKU to improve its ranking? How can the challenges be overcome?
What are the factors of success for improving the ranking of KKU?

Data collection

Data was collected from the QS World University Rankings website for the Global and Arab region ranking. QS World University Rankings has different methodologies for the two rankings, one at the global level, and one at the regional level and subject rankings.

In what follows we will discuss the development of the ranking of King Khalid University in what concerns both the global and the Arab region criteria.

QS World University Rankings assesses university in four main areas:

1. Teaching
2. Research
3. Employability
4. Internationalization

Each area has specific performance indicators (PI) and, at the same time, the weight of each indicator changes according to each ranking. *Table (1)* summarizes the performance indicators and their weight in each ranking.

Table (1): Performance indicators and their weights in Global and Arab region rankings

Performance indicators (PI) for Global Ranking	Weight of PI	Performance indicators (PI) for Arab region Ranking	Weight of PI
Academic Reputation from Global Survey	40%	Academic Reputation from Global survey	30%
Employer Reputation from Global Survey	10%	Employer Reputation from Global survey	20%
Faculty Student ratio	20%	Faculty Student ratio	20%
Citation per Faculty from Scopus	20%	Citation per paper from Scopus	5%
Proportion of International Faculty	5%	Proportion of International Faculty	2.5%
Proportion of International Students	5%	Proportion of International Students	2.5%
		Web Impacts from Webometrics	10%
		Proportion of staff with PhD	5%
		Paper per Faculty	5%

Data Analysis

We will discuss data collected from QS World University Ranking according to the type of rankings:

Analysis of Global Ranking

Table (2) shows the position of King Khalid University in the QS Rankings between 2014 and 2017. There is a noticeable improvement from being placed on the 601-650 position in 2014 to 471-480 in 2017. Three performance indicators affected the ranking of KKU, namely faculty-student ratio, the proportional amount of international faculty and the proportional amount of international students. The assessment

of the performance indicator "proportional amount of international faculty" is constant from 2014 to 2017 with the value of 100, so the two other performance indicators must have caused KKU's position in the global ranking to change. In regard to the faculty to student ratio, the level of this indicator increased from 50.9 in 2014 to 77.4 in 2017, which indicates that KKU had clear policies for student admission, which prevented over-enrollment and retained existing faculty members, while successfully hiring new and qualified faculty members.

The second effective performance indicator is the proportional amount of international students. This indicator decreased from 27.1 in 2016 to 24.5 in 2017, which may be due to the competition between Saudi state universities and the establishment of new universities and colleges in the Asia region, along with the regulations of the Education Ministry.

Although one of the three performance indicators decreased, the overall scoring and ranking increased, due to the different weight of faculty to student ratio (20%) and proportion of international students (5%). The increased rate of faculty – student ratio (14.5%) is higher than the rate of decrease in the proportion of international students (–9.6%).

Table (2): Development of the position of King Khalid University in Global Rankings, 2014- 2017

Performance indicators	2014	2015	2016	2017
Ranking	601-650	551-600	551-600	471-480
Academic Reputation from Global Survey	-	-	-	-
Employer Reputation from Global Survey	-	-	-	-
Faculty Student ratio	50.9	62.4	67.6	77.4
Citation per Faculty from Scopus	-	-	-	-
Proportion of International Faculty	100	100	100	100
Proportion of International Students	-	-	27.1	24.5

Analysis of Ranking in Arab Region

The position held in the QS regional ranking by King Khalid University decreased from 17 to 24 between 2015 and 2017 respectively, as shown in *Table (3).* By analyzing the performance indicators, we see that the assessment of four performance indicators decreased. These indicators are:

1. Academic Reputation from Global survey
2. Citation per paper from Scopus
3. Proportion of International Faculty member
4. Web Impacts from Webometrics

There is a noticeable increase in two performance indicators: faculty-student ratio and the proportion of international students.

Table (3): King Khalid University Regional Rankings, 2014 -2017

Performance indicators / Year	2015	2016	2017
Ranking	17	21	24
Academic Reputation from Global survey	82.1	77.5	71.1
Employer Reputation from Global survey	-	29.4	29.8
Faculty Student ratio	94.9	95.6	98.6
Proportion of staff with PhD	-	93.5	93.8
Paper per Faculty member	-	-	-
Citation per papers from Scopus	70.3	-	34.4
Proportion of International Faculty members	100	100	89.1
Proportion of International Students	-	25.6	42.2
Web Impact from Webometrics	-	44.1	41.7
Overall score	67.8	66.2	63.4

Conclusion

There is an improvement in the QS international ranking position of KKU (as reflected in the jump from 601-650 in 2014 to 471-480 in 2017). In contrast, KKU's ranking in the Arab region decreased from

17th place in 2015 to 24th place in 2017. We will attempt to explain in what follows some of the reasons for this discrepancy.

First and foremost, different performance indicators are employed by the international and Arab region ranking. Performance indicators, such as the ratio of students to faculty members, are weighted differently in the global ranking compared to the Arab regional ranking. There is currently high competition between universities in the Arab region to attract international faculty members and international students; while the percentage metric on the global scale was unchanged during this time period, KKU's percentage of international faculty actually fell as a result of such competition.

A decrease in rank in the Arab regional ranking can also be attributed to the increased emphasis on the "Employer reputation from global survey" metric, which is markedly more important in the regional ranking calculation. Additional emphasis is given to the ranking related to the Webometrics ranking survey, the proportion of staff holding a Ph.D., and the paper per faculty statistics.

While the rankings described above indicate a mixed reaction to changes implemented at KKU, the newfound emphasis on ranking that has been implemented following the launch of the *Saudi Vision 2030* plan has positively contributed to a developmental culture, and a prediction is made that a similar increase in the ranking position on the global scale coupled with relatively lower metrics of growth in the Arab region are probable.

There are several reasons for this outlook. First, with a heightened emphasis on global rankings among Saudi universities, more governmental funding regarding the reforms outlined in the *Saudi 2030* plan, and a greater intra-departmental focus on attaining such metrics means that the pursuit of a better ranking position is being undertaken nationwide. Assuming metrics for the QS World University Rankings and other similar systems do not drastically change, and that the growth/decrease fluctuations typical of the universities of other regions remain constant with what has been observed in the previous years, it

is likely that Saudi universities will continue to improve on the global scale. In regards to the Arab region rankings, Saudi universities face domestic competition. King Fahd University of Petroleum and Minerals and King Saud University are two Saudi schools which have consistently ranked in the top 250 universities globally since 2014. These institutions undoubtedly perform well in the QS metric for "academic reputation" and will continue to work towards improved rankings under recent reforms.

Having analyzed the criteria which inform rankings on both the global and regional scale, several recommendations are offered below which may inform King Khalid University in the pursuit of improved ranking positions.

First, academic and employer reputation are criteria where KKU can further improve. As with any institution undertaking a review and reform of its policies, communication is a critical element: as stated in the Saudi Vision 2030 plan, better preparation for success in a variety of fields is important to the diversification of the Saudi economy. It is suggested that KKU continue to pursue avenues for communication and collaboration between the university and the industrial sector. This includes an ongoing dialogue concerning employer demands and requirements, opportunities for employers to connect with students, and cultivated channels of communication across disciplines and departments including a network of former staff and alumni.

Furthermore, King Khalid University must also continue to emphasize the metrics of faculty research and faculty citations. While connected to an emphasis on better intra-departmental and faculty-administration communication, the improvement of faculty research metrics could be supplemented by an increase in the university budget for research. It is also the opinion of this author that a program of international cooperation, which connects KKU faculty with that of international institutions, would help forge academic affiliations and partnerships. Finally, in keeping with the plans outlined in the *Saudi Vision 2030* plan, KKU should undertake objectives to entice the

industrial sector to provide funding for projects, particularly those which will aid in the expansion of resource management emphasized in the plan.

Acknowledgments:

I would like to convey my deep appreciation for the support and help provided by King Khalid University for this study.

References*:*

Benavides, S., Caballero, J., Garcia, A. S., Wolowich, W. (2010). The Impact of Student-Faculty Ratio On Pharmacy Faculty Scholarship. *American Journal of Pharmaceutical Education, 74(*8).

Bondar, Y., Delgado-Márquez, B. L., Hurtado-Torres, N. E. (2011). Internationalization in Higher Education: Theoretical and Empirical Investigation of Its Influence on University Institution Rankings. *International Journal of Educational Technology in Higher Education*. 8(2), 265–284.

Freixa M. N., Hurtado, J., and Vila Banos, R. (2015). Quality Assessment for Placement Centers: A Case Study of the University of Barcelona's Faculty of Education. *Assessments and Evaluation in Higher Education*, *40*(2), 199-217.

Government of the Kingdom of Saudi Arabia (2017). *Saudi Vision 2030*. Retrieved from: http://vision2030.gov.sa/en.

Head, R. B., Johnson, M. S. (2001). Accreditation and its Influence On Institutional Effectiveness. *New Directions for Community Colleges, 153*, 37-52.

Huang, M. (2001). A Comparison of Three Major Academic Rankings for World Universities: From a Research Evaluation Perspective. *Journal of Library and Information Studies, 9(1), 1-25.*

King Khalid University. (2019). About KKU. https://www.kku.edu.sa/en/kku/about/info/

Koc, N. & Celik, B. (2015). The Impact of Number of Students per Teacher on Student Achievement. Procedia - *Social and Behavioral Sciences* 177:65-70, DOI: 10.1016/j.sbspro.2015.02.335

Kuh, G. D. (2008). *High impact educational practices: What are they, who has access to them, and why they matter.* Washington: Association of American College and Universities.

Loughran, G. (2016). "Why University Rankings May Be Harming Higher Education", The Irish Times, September 19, available at:

www.irishtimes.com/news/education/why-university-rankings-may-be-harminghigher-education-1.2793532.

Malik, R. S. (2018). Educational Challenges in 21st Century and Sustainable Development. *Journal of Sustainable Development Education and Research*, 2(1), 9-20

Massucci, F. A., Docampo, D. (2019). Measuring The Academic Reputation Through Citation Networks Via Pagerank. Journal of Informetrics, 13(1), 185-201. DOI: 10.1016/j.joi.2018.12.001

Ministry of Education (2019). *Higher Education Statistics in the Kingdom of Saudi Arabia.* Retrieved from: https://www.moe.gov.sa/en/HigherEducation/governmenthighereducation/Pages/AdmissionStatistics.aspx.

Nevada, M., Barker, K., & Osman, S. A. (2014). Policy Pressures And The Changing Organization Of University Research. Policy Pressures And The Changing Organization Of University Research. In Musselin, C. & Teixeira, P. (eds): Reforming Higher Education: *Public Policy Design and Implementation*, Springer. DOI: 10.1007/978-94-007-7028-7_9

QS World University Rankings (2014-2017). *Top University Rankings.* Accessed from https://www.topuniversities.com/.

Saisana, M., Hombres, B. D. (2008). Higher Education Rankings: Robustness Issues and Critical Assessment. Luxembourg: *JRC Scientific and Technical Reports*.

Teodoro, M. P., Hughes, A. P. (2012). Socializer or signal? How agency accreditation affects organizational culture. *Public Administration Review*, *72*(4), 583–591.

Van Vught, Frans A., Ziegele, Frank (Eds.). (2012). *Multidimensional Ranking: The Design and Development of U-Multirank*. Higher Education Dynamics: Vol. 37.

Vernon, M. M., Balas, E. A. & Momani, S. (2018). Are University Rankings Useful to Improve Research? A Systematic Review. *PLoS ONE*, 13 (3), art. no. e0193762.