

Research activities in Saudi Arabia

Abbas M. Shamsan, BA,
Abbas S. Al Mutair, RN, PhD.

In the middle ages the Arab and the Islamic civilization were the center of attention in many fields especially medicine. “The canon of Medicine” was considered a crucial textbook in the west.¹ Nowadays, most of the Arab countries are considered as developing countries, even the countries whom have strong economical foundations.¹ However, a comparative study was conducted to compare between the Arab countries and the non-Arab countries in Middle East (Turkey, Iran) in biomedical research. The results showed that the journals’ impact factor and H index were significantly higher in non-Arab Middle Eastern than Arab countries.

The reasons of lack of research activity in Saudi Arabia are several; lack of research activities, scientific thinking, and training from childhood. However, Saudi Arabia should increase its position and take a leadership position in the research and development field. The 2030 vision with its research and development program is aiming to enhance the research activities and innovations in the Kingdom. This paper will discuss potential methods to enhance the research activities and culture in Saudi Arabia.

Saudi Arabia increased spending on research and development from \$4.6 Billion to \$6.5 Billion between 2010 and 2013.² Three years ago, the 2030 vision had been established, and one of the aims of this vision is to expand research activity, and to improve the country’s position in the scientific world.³ One of the crucial objectives that Saudi 2030 vision tries to accomplish is to improve the Saudi rank to be on the top 10 countries in Global Competitiveness Index.³ Research and development are 2 of the important subjects that can increase the Saudi position in science. In order to achieve these goals Saudi universities should conduct high quality researches. Also, to initiate research centers in both public and private sectors.³ Publishing beneficial research and investing in initiating research centers are 2 essential criteria to improve Saudi position in the Global Competitiveness Index.³

Saudi Arabia is far behind other developed countries in research and development, a total of 924 students participated in a study to find medical students’

opinions about research in Saudi Arabia. Approximately 10.3% of the students reported that they were not knowledgeable about the significance and prominence of scientific research. While 44.3% stated that they had no knowledge of research methodology.⁴ Research is one of the most crucial topics that should hold a paramount consideration. Universities should create journals for each department and motivate students and faculties to research, conduct studies in all fields and publish their work to contribute to the country’s development.

According to SCImago Journal Ranking (SJR) there are 21 Saudi indexed journals, and the top 10 journals are indicated in Table 1. Saudi Arabia’s H index is 309, and it is the 40th in the world; the third among Middle Eastern countries, and the first in the Arab Nation. Saudi Arabia has published 182,753 documents from 1996 to 2018, and has received 1,946,422 citations.⁵

How to increase Journals’ Impact? i) Journals should increase their visibility by making some of the new and crucial articles open accessed. ii) Making a website that can be easy to use by making the submission process more pleasant for authors, and making the articles easy to be searched. iii) Journals should have highly qualified academicians on the International editorial team in order to do beneficial work. iv) Publishing deferent papers will increase the quality of a journal. For instance, publishing original and reviewed papers would increase the probability of getting cited. v) Focusing on the quality of the articles, not the quantity.

There should be support from the private sector in health care and education to reach the vision’s goal. Therefore, public and private sectors should work on creating more Saudi journals in different fields and attract local and international researchers to publish in

Table 1 - Top 10 Saudi Journals rank based on impact factor.

Journal	Quartile	Impact Factor	H Index
Journal of King Saud University - Computer and Information Sciences	Q2	3.98	19
Saudi Pharmaceutical Journal	Q1	3.76	36
Arabian Journal of Chemistry	Q2	3.62	43
Journal of the Saudi Society of Agricultural Sciences	Q1	3.54	20
Journal of King Saud University, Engineering Sciences	Q1	3.42	20
Journal of King Saud University - Science	Q1	2.94	27
Journal of Saudi Chemical Society	Q2	2.89	34
Saudi Journal of Biological Sciences	Q1	2.87	33
Saudi Dental Journal	Q2	1.50	15
Hematology/Oncology and Stem Cell Therapy	Q2	1.17	16

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Saudi journals. Spending on research and development should be much higher in the following years to ensure achieving the 2030 vision.

This paper focused on the research and development in Saudi Arabia, the research culture in Saudi Arabia, and the Saudi journals. The current paper aimed to help improving Saudi Arabia position in research in parallel with the 2030 vision. It has emphasized on creating more new journals by universities and enhance the already existing journals because the best solution to improve Saudi Arabia position is to motivate research activity and create research culture within the universities. In addition, it is highly recommended that a considerably higher amount of support by the Saudi government. Education is the key to create a new generation that can be research oriented and well trained in schools and universities. It is highly suggested that universities open more journals and attract researchers from around the world to publish in Saudi journals. It is also highly advised to establish research centers which may collaborate internationally with other institutions. Most importantly, it is highly recommended that Saudi Arabia improves the “research culture” and open academic departments and universities linked with highly-ranked universities in research around the world.

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From the Research Center (Shamsan, Al Mutair,), Dr Sulaiman Al Habib Medical Group; from the College of Health Sciences University of Shrajah (Al Mutair), Sharjah, United Arab Emirates; and from the School of Nursing (Al Mutair), Wollongong University, Australia.

Addressed correspondence to: Dr. Abbas Al Mutair, Research Center, Dr Sulaiman Al Habib Medical Group, Riyadh, Kingdom of Saudi Arabia. E-mail: abbas4080@hotmail.com

References

1. Benamer HT, Bakoush O. Arab nations lagging behind other Middle Eastern countries in biomedical research: a comparative study. *BMC Med Res Methodol* 2009; 9: 26.
2. Ministry of Education. R&D in the Kingdom. [cited 2019 July 9]. Available from: <https://rdo.moe.gov.sa/en/AbouttheProgram/Pages/RandDintheKingdom.aspx>
3. Abulaban A, Alharbi A, BinDajam O, Al Jarbou M, Alharbi H, Alanazi F, et al. Changing opinions about research by Saudi medical students. *Adv Med Educ Pract* 2017; 8: 571-575.
4. Sultana K, Jeraisy MA, Ammari MA, Patel R, Zaidi STR. Attitude, barriers and facilitators to practice-based research: cross-sectional survey of hospital pharmacists in Saudi Arabia. *J Pharm Policy Pract* 2016; 9: 4.
5. Lab S. Scientific Journal Rankings. [cited 2019 Apr 16]. Available from: <https://www.scimagojr.com/journalrank.php?country=SA>.