

### **Research performance evaluation and citation in the Arabic countries**

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Abstract

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\*Corresponding author: Email address: mrvsa59@gmail.com **There are** a vast number of journals in different disciplines issued in the Arabic language, however the majority of these journals are not currently indexed internationally or provide abstracts. This short communication presents information about the ranking of the Arabic countries in regard to published documents, citations and H-index to the period from 1996-2011 according SJR SCIMAGO LAB powered by Scopus, in addition to presenting the numbers of veterinary sciences documents that were published from 1996-2011 in each country, and the name of journals that included in the Scopus index, and originated from different Arabic countries.

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## Introduction

Research is defined as the establishment of new knowledge and/or the use of current and existing knowledge in a new and innovative way in order to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it leads to new and innovative outcomes.

Recently the numbers of governmental and private universities have heavily increased in different Arabic countries, which have led to a significant increase in scientific research activities. It is important to evaluate the academic performances and research activities in these universities. The predominant reason for evaluating academic research is the quality assurance of the research, as well as to improve research and research

policy, by giving lfeedback to the academic community. This is because research is a central function and the university must evaluate its performance. Research activity in universities and research institutes is evaluated both internally and externally. This short communication is designed to introduce a short review about the ranking of Arabic countries according to published documents, citations and H-index from 1996-2011 presented by SJR SCIMAGO LAB powered by Scopus for all countries in the world. In addition, the number of veterinary sciences documents that were published from 1996-2011 in each country, are presented, as well as the name of journals that included in the Scopus index, and originated from different Arabic countries.

#### **Research evaluation**

Research evaluations are based on expert evaluation. Recently, the publishing and citation data in the form of bibliometric indicators is becoming increasingly common to use. The fact that bibliometric indicators have become more common in evaluation can be explained by manageability and ease of access. Even though indicators are often seen as objective measures, and many of them are well known and widely used, one should interpret them with caution. All indicator calculation methods and databases that form the foundation for referencing information have limitations, and these limitations can be misleading. Hence, quantitative information produced by bibliometric indicators should only be used as a supplement to research activity evaluation by experts.

Currently, there are three major factors that are used to evaluate academic performances: the number of publications, the impact factor of those journals (Al-Salihi, 2012; Eric and Vincent, 2009), and the H factor (Hirsch, 2005). Leo Egghe, 2006, has suggested what is called the g-index. This index is used to quantify scientific productivity based on the publication record and is calculated based on the distribution of citations received by a given researcher's publications.

A list of over 25,000 journals is maintained by the Institute of Science Index (ISI). The list includes over 1200 arts and humanities journals as well as scientific journals. Listing is based on published selection criteria and is an important indicator of journal quality and impact (http://www.isi-thonsomreuters.org/).

There are a vast number of journals in different discipline issued in the Arabic language, however the majority of these journals are not currently indexed internationally or provide abstracts. Mapping the Arabic regional journals is the best way, which will increase the exposure of these journals at national, regional and at the global levels. In order to map the Arabic journals a building of a new model system index is required. Two simple indices to classify journals, published in the Arabic language, and different researchers had been suggested by Abdel-Aty, 2011. These indices depend upon the known impact factor and h-index. The new indices give an easy way to judge the rank of any journal (output of any researcher) without looking for other journals (output of other researchers) (Abdel-Aty, 2011). However, actual applications of these new indices are not yet used in the evaluation of research output and publications.

Journal and Country Ranking was developed by SCImago according to the information contained in the Scopus® database (Elsevier B.V.). These indicators can be used to assess and analyze scientific domains. SJR SCIMAGO LAB powered by Scopus was presented the ranking of all countries in the world. The data showed that the Arabic

countries situated in different locations according to published documents, citations and H-index from 1996-2011(Table 1). The number of veterinary sciences documents that published from 1996-2011 in each country is also presented (Table 2). Although Iraq is situated at the place 93 and 11 globally and regionally respectively, but it is the seventh Arab country in respect to research published in Veterinary Science (Table 3 and Fig 1). There are 74 Arabic journals from different countries that are included in the Scopus index (Table 4).

**Table 1.** Ranking of Arabic countries according to published documents, citations and H-index to period from 1996-2011. (According SJR SCIMAGO LAB powered by Scopus) (http://www.scimagojr.com/countryrank.php)

No.	Rank according	Country	Documents	Citable	Citations	Self-	Citations per	H-
	SJR SCIMAGO			documents		Citations	Document	index
	LAB powered							
	by Scopus							
1	41	Egypt	75.610	73.968	438.912	91.957	7,23	122
2	48	Saudi	46.167	44.089	241.843	35.926	6,82	114
		Arabia						
3	52	Tunisia	32.250	30.884	141.848	32.694	6,65	80
4	55	Morocco	23.446	22.480	135.411	25.033	6,82	90
5	59	Algeria	21.059	20.770	88.422	17.264	6,34	74
6	61		17.126	16.807	90.151	13.333	6,83	72
		Jordan						
	65	United Arab	15.698	15.039	83.109	9.530	7,36	81
7		Emirates						
	68	Kuwait	12.254	11.943	80.980	11.653	7,43	77
8								
9	69	Lebanon	11.672	10.852	82.250	8.564	9,39	91
10	80	Oman	6.875	6.542	36.901	4.770	7,02	58
11	93	Iraq	4.420	4.170	11.812	1.378	4,53	37
12	95	Qatar	4.398	4.196	18.382	1.923	5,55	44
13	100	Sudan	3.384	3.273	21.343	3.214	8,99	48
14	101	Syrian Arab	3.379	3.288	24.751	3.341	9,53	53
		Republic						
15	109	Bahrain	2.817	2.624	11.059	1.225	4,98	36
16	110	Libyan	2.304	2.236	7.428	465	4,79	32
		Arab						
		Jamahiriya						
17	112	Palestine	2.273	2.202	11.764	1.852	7,68	41
18	122	Yemen	1.395	1.350	7.259	841	7,46	34
19	169	Mauritania	292	283	2.188	114	8,56	22
20	191	Djibouti	109	99	567	30	6,47	12
21	209	Comoros	50	47	377	24	7,67	8

**Table.2:** shows the published documents in veterinary sciences from 1996-2011 according to SJR SCIMAGO LAB powered by Scopus

Country	Year	Year from 1996-2012															
	96	97	<b>98</b>	99	00	01	02	03	04	05	06	07	08	09	10	11	Total
Egypt	31	34	32	32	16	29	24	20	25	31	37	74	90	97	105	157	834
Saudia	20	16	17	19	16	24	20	18	18	15	11	13	22	28	45	45	347
Arabia																	
Tunisia	7	4	7	12	11	5	9	11	17	17	18	14	20	24	24	29	229

Morocco	10	11	7	9	6	5	14	11	10	11	7	10	6	7	5	15	144
Algeria	2	-	3	1	-	-	1	4	-	3	4	10	9	14	8	16	75
Jordan	6	12	15	13	10	8	11	9	15	8	20	23	35	26	14	20	245
United Arab Emirates	20	9	16	8	11	14	2	13	15	16	23	17	18	11	12	12	217
Kuwait	-	1	6	7	4	-	4	2	3	6	3	2	4	5	6	5	58
Lebanon	3	3	1	1	-	5	1	1	2	1	1	1	-	1	9	8	38
Oman	3	1	3	6	5	2	3	5	3	7	2	3	5	2	8	2	60
Iraq	9	4	3	4	1	3	2	2	2	5	5	2	13	29	42	46	172
Qatar	-	-	-	-	-	-	2	-	1	1	3	4	1	1	4	4	21
Sudan	4	8	11	9	5	5	9	14	11	14	17	14	26	31	34	22	234
Syrian Arab Republic	5	2	-	5	1	1	-	5	4	2	3	6	4	8	20	18	84
Bahrain	1	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-	3
Libyan Arab Jamahiriya	1	-	-	3	-	1	1	3	1	-	2	2	-	2	3	7	26
Palestine	-	-	-	-	1	1	-	-	-	-	-	3	2	3	1	3	14
Yemen	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2
Mauritania	1	1	-	2	2	1	-	-	-	2	1	-	1	-	1	-	12
Djibouti	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Comoros	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1

**Table 3:** shows the ranking of Arabic countries according to published documents inveterinary sciences from 1996-2011 depending on the informationpresented in SJRSCIMAGO LAB powered by Scopus

Country	Totalnumberofpublication in veterinarysciences from 1996-2011	Country	Total number of publication in veterinary sciences from 1996-2011
1. Egypt	834	2. Saudia Arabia	347
3. Jordan	245	4. Sudan	234
5. Tunisia	229	6. United Arab Emirates	217
7. Iraq	172	8. Morocco	144
9. Syrian Arab Republic	84	10. Algeria	75
11. Oman	60	12. Kuwait	58
13. Lebanon	38	14. Libyan Arab Jamahiriya	26
15. Qatar	21	16. Palestine	14
17. Mauritania	12	18. Bahrain	3
19. Yemen	2	20. Djibouti	2
21. Comoros	1		

Karima Al-Salihi, (2013); 2 (1), 1-7 Mirror of Research in Veterinary Sciences and Animals

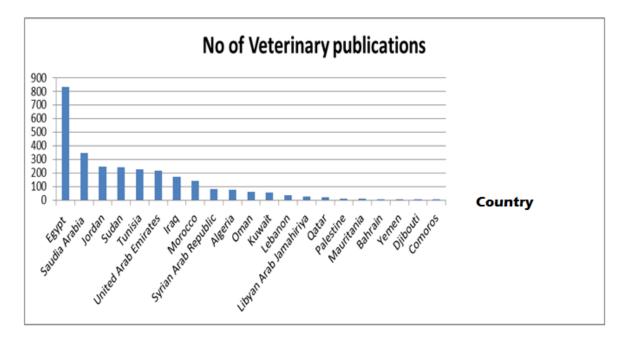


Fig1: Shows the descending distributions of Arabic countries in regards to number of published documents in veterinary sciences from 1996-2011.

Table 4: Shows	the journals	from	different	Arabic	countries	that	are	included	in the	е
Scopus index.										

Country	Name of journal	Country	Name of journal
1. Egypt	<ul> <li>1.Advances in Human-Computer Interaction</li> <li>2. Interdisciplinary Perspectives on Infectious Diseases.</li> <li>3. Advances in Hematology</li> <li>4. Advances in Tribology</li> <li>5. Journal of Tropical Medicine</li> <li>6. Egyptian Journal of Biological Pest Control</li> <li>7. Journal of Environmental and Public Health</li> <li>8. Journal of the Egyptian Society of Parasitology</li> <li>9. Advances in Bioinformatics</li> <li>10. International Journal of Telemedicine and Applications</li> <li>11. Journal of Toxicology</li> <li>12. International Journal of Antennas and Propagation</li> <li>13. AEJ - Alexandria Engineering Journal</li> <li>14. Anesthesiology Research and Practice</li> <li>15. Journal of the Egyptian Public Health</li> </ul>	2. Saudi Arabia	<ol> <li>Name of Journal of kidney diseases and transplantation : an official publication of the Saudi Center for Organ Transplantation, Saudi Arabia.</li> <li>Saudi Medical Journal</li> <li>Hematology/ Oncology and Stem Cell Therapy</li> <li>Journal of King Abdulaziz University, Earth Sciences</li> <li>Journal of the Saudi Heart Association</li> <li>Neurosciences</li> <li>Journal of King Abdulaziz University, Marine Science</li> <li>Scientific Journal of King Faisal University</li> <li>Pan Arab Journal of Neurosurgery</li> <li>King Fahd University of Petroleum and Minerals Research Institute Annual Catalysts in Petroleum Refining and Petrochemicals Symposium Papers</li> </ol>

	<ul> <li>17. Egyptian journal of immunology /</li> <li>Egyptian Association of Immunologists, The</li> <li>18. Middle East Fertility Society Journal</li> <li>19. Egyptian Journal of Neurology,</li> <li>Psychiatry and Neurosurgery</li> <li>20. Egyptian Journal of Anaesthesia</li> </ul>		To be continued
3. Tunisia	<ol> <li>1.Tunisie Medicale</li> <li>2. Archives de l'Institut Pasteur de Tunis</li> </ol>	4. Morocco	<ol> <li>Physical and Chemical News</li> <li>Malta Medical Journal</li> <li>Journal of Mediterranean Studies</li> </ol>
5.Jordan	<ul> <li>1.Advances in Environmental Biology</li> <li>2.Jordan Journal of Mechanical and Industrial Engineering</li> <li>3.Advances in Natural and Applied Sciences</li> <li>4.International Arab Journal of Information Technology</li> <li>5.American-Eurasian Journal of Sustainable Agriculture</li> <li>6.Jordan Journal of Pharmaceutical Sciences</li> <li>7.Jordan Medical Journal</li> </ul>	6.United Arab Emirates	1.IranianRedCrescentMedicalJournal2.Open Dentistry Journal3.Current Aging Science4.Recent patents on food, nutrition & agriculture5.Current Molecular Pharmacology6.International Journal of Diabetes and Metabolism7.Open Neuroscience Journal8.OpenRethods Journal9.Open Applied Mathematics Journal10.Open Automation and ControlSystems Journal11.Open Mathematics Journal12. Open Medical Devices Journal13.Open Glycoscience, 14. Open Toxinology Journal
7.Kuwait	<ol> <li>1.Kuwait Medical Journal</li> <li>2.Arab Journal for the Humanities</li> <li>3.Journal of the Social Sciences</li> <li>4.gulf journal of oncology, The</li> <li>5.Kuwait Journal of Science and Engineering</li> </ol>	8.Lebanon	1.MiddleEastJournalofAnesthesiology2.JournalMedical Libanais3.JamahiriyaMedical Journal
9. Oman	<ol> <li>Sultan Qaboos University Medical Journal</li> <li>Journal of Engineering Research</li> </ol>	10.Iraq	<ul><li>1.New Iraqi Journal of Medicine</li><li>2.Iraqi Journal of Veterinary Sciences</li><li>3.Arab Gulf Journal of Scientific</li><li>Research</li></ul>
11.Qatar	1.Qatar Medical Journal	12.Sudan	1.Arab journal of nephrology and transplantation
13.Syrian Arab Republic	No journal reported	14.Bahrain	1.Bahrain Medical Bulletin 2.GeoArabia 3.Journal of the Bahrain Medical Society
15.Libyan Arab Jamahiriya	No journal reported	16.Yemen	No journal reported
Algeria	No journal reported	Palestine	
Mauritania Comoros	No journal reported No journal reported	Djibouti	No journal reported

# Conclusion

Research performance evaluation and citation in the Arabic countries requires the building of a new model system index. The research activity evaluation is based on several evaluation methods, which are chosen to be relevant to the evaluation situations. The Arabic countries appeared to be situated in different places within the SJR SCIMAGO ranking list. Iraq located at the seventh place within the Arabic countries in regard to veterinary publications. Seventy-Four Arabic journals are included in the Scopus index in respect to their country of origins.

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