

# Jordanian Social Science Research: An Analytical Study of Publications in Scopus Database

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## Abstract

*The present study explored the status of social science literature published by the Jordanian researchers and indexed in Scopus database. A total of 6913 publications have been produced in the form of journal articles, reviews, papers, books, book series, etc. since 1957 to 2021. It was found that the University of Jordan with 1746 publications occupies top position among all the research institutes of the country followed by Yarmouk University with 985 and Hashemite University with 825 occupying second and third position respectively in the list. As far as the research collaboration is concerned, United States followed by UK, UAE and Saudi Arabia are leading countries of Jordan for collaboration of research in the field. The Khasawneh, S. and Al-Hassan, S.M. from Hashemite University are most prolific authors producing 25 and 23 publications followed by Jarrah, M. from University of Jordan with 23 publications. The articles were found to be most widely produced documents followed by conference papers and reviews. The Jordan University of Science and Technology with 67 publications is the leading funding agency for the research in the field which is followed by university of Jordan which has funded 42 publications. The source titles like journals, conference proceedings, books, book series and trade journals have been used for publishing the literature and of which Dirasat Human and Social Sciences from university of Jordan has contributed maximum publications.*

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**Keywords:** Social Science research output, Literature Analysis, Scopus Database, Jordan, Patterns of Jordanian research, Bibliometrics, Top source titles.

## 1. Introduction

A Muslim majority and Christian minority nation, Jordan is located in the Middle East region. With the vibrant history and culture, Jordan forms its geographical and political relations with the nearby countries. Territorial dispute and domestic political conflicts continuously molded the socio-political ambit of the nation (**Bataineh and Anderson, 2015**). The rapid progress in the knowledge of economical, technological, and industrial sector has compelled to term the current era as of epoch of education and knowledge. The nations and societies are determined to generate productive information, are struggling to spot and fill up the blank in knowledge by carrying out research and studies. Scholarly publications play the foremost and crucial role in this regard, and act as an authentic source of information. The bibliometric studies are directly influenced by it which have important role in the field of social science as it is associated with summing up the number of publications, citations, and co-citation (**Sirhan, tawalbeh and Mohsen, 2021**). With the rising significance of Research and scientific publication for the research output, it has become crucial for every developing

nation to assess the research status and its impact at the national and international level. The continuous research activities are needed to be maintained through constant analysis of scholarly communication and publications from the country's researchers and authors in order to provide a way-through to the academic institutions, government, and organizations of national importance. Earlier studies witnessed a swift growth in the research output in developing countries, specifically the developing nations of Middle East region. International collaborations and co-authorship have assisted the scholars and scientist to share their experiences, intellect, and resources. And such collaborations and co-authorship (especially with the developed nations) have further amplified the research output of nations with limited resources like Jordan. Moreover, the collaborations and co-authorship with the developed nations have lead the way for "open access" publishing. Scientist and scholars have also observed that to get their work more citations and usage by experts, they have to make their work freely accessible for all and increase the collaborations with the international authors (AIRyalat and Malkaw, 2018). For generations, this has been the view of many that science and technology is the back bone of socio-economic development and progress. This sadly has hindered to notice the role of humanities and social science. But if science and technology is considered as the back bone of development then surely humanities and social science is the heart and brain. One of the ways out to change this perception of masses regarding humanities and social science is that there should be a national body, organization, society, or council to take up the responsibility of uplifting, managing, and encouraging research in the fields of humanities and social sciences (Majdoubeh).

## **2. Aims and Objectives**

The main target of the present study was to determine the outlook of the Jordanian social science literature which is indexed in Scopus database to explore the top researchers, institutes, source titles, collaboration, funding agencies, and highly cited articles in the field. The study is perceived with the following broader objectives:

- To find the status of literature in the field of social sciences in Jordan.
- To explore the top contributing authors and research institutes in the country.
- To find the open access status, source titles, and funding agencies which had sponsored the research in the field.
- To find the types of documents, highly cited articles and the research collaboration trend in the country.

## **3. Research Methodology**

The study used the Scopus database, which is one of the comprehensive bibliographic and citation database for collecting the necessary data in the field. The advanced search of the databases was used AFFILCOUNTRY(Jordan) which resulted in 64,182 document results and of which the investigator selected Social Sciences resulting in a total of 6913 results which were exported and finally analyzed to ascertain the various facets of the study. The citation overview window was used for finding the highly cited articles published by the researchers in the field of social sciences in Jordan. It is to mention that all the records since 1957 to 2021 were considered for analysis.

## **4. Literature Review**

Sirhan, Tawalbeh & Mohsen (2021) conducted a bibliometric study to get the bibliographic analyses for Articles of the Jordanian Journal of Libraries and Information from 1965 to

2017. By using standard statistical calculations, a bibliometric approach is used to extract and analyze the data. The findings of the study revealed that the largest numbers of researches were published during the 1980s, producing on an average 28.6 articles every year. Another finding of the study, which is significant to point out here, is that the ratio of male authors was relatively high in producing, and the majority of the articles have single authorship. The study concludes that licenses should be issued for publishing articles so that authors are encouraged to come up with more productive and beneficial information which ultimately might serve the economy of the country. Besides, the study also recommends that free access should be given to libraries in Jordan to enhance the interest of readers along with authors. Gheorghe, Gad, Ismail, & Chalkidou (2020) assessed the requirements of building up health economics capacity in Jordan, Lebanon, the occupied Palestinian territories and Turkey. The outcome of the study shows that 80% of the records are the contribution from the Turkish organizations, and it has a most distinct system of collaborators, nationally and internationally. The primary health economic topics were Cost analysis, cost-effectiveness analysis, and health system economics. Hayajneh, Hayajneh, & Miqdady (2010) tried to spot the characteristics of literature published in the medical and paramedical fields by Jordanian institutions in the 20th century. The results of the study show that the largest number of articles were published in Pharmacology Journals, i.e. 12%. The percentage of articles published in journals with assigned impact factors is 72%. However, a large proportion of articles (60%) had impact factors of only 2 or less. The study concluded that research in medical science in Jordan has considerably increased in the last decade of the 20th century though more efforts are needed to improve the quality of the researches by escorting it towards a more multidimensional and modulated way of conducting research.

AlRyalat & Malkawi (2018) assessed the international collaboration of research in Jordan and open access publication in the last decade. The study observed substantial growth in the publications with international collaborations, hiking from 38% to 53.3% from 2008 to 2017. Whereas the open access publications have grown from 7.3% to 18.7%. However, the study suggested that researchers and scholars in Jordan should give further emphasis to international collaboration with developed nations. Dardas, Sawair, & Simmons (2018) conducted a bibliometric analysis of nursing research through December 2017 in the Arab region. The research in the nursing sector has increased considerably in the Arab region over the last eight years. There are several reasons for it, where one could be that the researchers in the Arab region were falling behind in comparison to the researchers in other regions and just starting to grow in anticipation. However, the number of researches has grown swiftly over the last ten years. Second reason could be the growing number of co-authorship and international collaborations. Further significant finding of this study is how Arab nursing literature has begun being cited by scholarly publications. 58% of the literature was cited less than twenty times, and 32% of the literature was not cited at all. Akkam & Khatatbeh (2021) performed a scientometric analysis to evaluate the Future ethical implications and potential health consequences of nanotechnology research in Jordan. The data analyses of the study disclose that number of research in nanotechnology has increased at a very fast pace. Hereafter, consequences and future of nanotechnology research flourishing in Jordan. However, it is crucial to investigate the impact of nanotechnology research, be it in the industrial or academic sector. Uzun (1996) carried out the bibliometric analysis of publications in physics from Middle Eastern countries. The significant finding of the study is that 75% of the total research studies are combined from the physicists of Egypt and Turkey. Another crucial finding is the inclination of Iranian authors towards Astro science, and nuclear science and technology. Yet the author observed the change in the pattern of the publication from the decreasing isolation to increasing collaboration.

## 5. Results and Discussion

The various bibliometric parameters were used to find the features of social science research in Jordan using the Scopus data from 1957 to 2021. A total of 6913 publications have been produced by the social scientist in Jordan using multiple sources for their research output in the field. The different sections have been segregated to determine the various facets of the Jordanian literature which are described as follows:

### 5.1 Sources used by Jordanian Social Science Researchers

The table 1 shows the types of sources used for publishing the social science literature and it is observed that the authors have used journals, conference proceedings, books, book series and trade journals for their publications in the field. It is found that the majority of the literature is being published by journals with 6203 publications followed by conference proceedings, books and book series. The trade journals have been rarely used as the source of publication in the field of social sciences.

**Table - 1: Types of Sources**

| S. N.        | Publication Type      | No. of Records | Percentage   |
|--------------|-----------------------|----------------|--------------|
| 1            | Journal               | 6203           | 89.72        |
| 2            | Conference Proceeding | 413            | 5.98         |
| 3            | Book                  | 217            | 3.13         |
| 4            | Book Series           | 73             | 1.05         |
| 5            | Trade Journal         | 7              | 0.10         |
| <b>Total</b> |                       | <b>6913</b>    | <b>100.0</b> |

### 5.2 Open access Publications

The table 2 shows the status of Open Access Publications in the field of social sciences in Jordan. It is observed that there are 1637 publications constituting about 23 % which are open access publications. There are also various forms of Open access publications which are reflected as Gold with 725 publications, hybrid with 199, bronze with 521 and Green with 650 publications.

**Table - 2: Status of Open Access Publications**

| S. N. | OA Status       | No. of Records | Percentage |
|-------|-----------------|----------------|------------|
| 1     | All Open Access | 1637           | 23.68      |
| 2     | Gold            | 725            | 10.48      |
| 3     | Hybrid Gold     | 199            | 2.88       |
| 4     | Bronze          | 521            | 7.53       |
| 5     | Green           | 650            | 9.40       |

### 5.3 Yearly distribution of Social Science Publications

The table 3 shows list of publications in chronological order from 1957 to 2021. It is found that only one publication has been produced in the year 1957 which grows continuously and in the year 2021, a total of 1050 number of publications have been produced by the Jordanian Social Science Scientists. As it is visible from the table that in 1984, a jump of 10 publications have been observed, and from 76 publications in 2006 to 128 in the year 2007, a jump of 52 publications have been observed.

**Table - 3: Year-wise Distribution of Publications**

| <b>S. N.</b> | <b>Year</b> | <b>No. of Records</b> | <b>Percentage</b> |
|--------------|-------------|-----------------------|-------------------|
| 1            | 2021        | 1050                  | 15.19             |
| 2            | 2020        | 951                   | 13.76             |
| 3            | 2019        | 696                   | 10.07             |
| 4            | 2018        | 442                   | 6.39              |
| 5            | 2017        | 367                   | 5.30              |
| 6            | 2016        | 424                   | 6.13              |
| 7            | 2015        | 305                   | 4.41              |
| 8            | 2014        | 334                   | 4.83              |
| 9            | 2013        | 314                   | 4.54              |
| 10           | 2012        | 346                   | 5.005             |
| 11           | 2011        | 290                   | 4.19              |
| 12           | 2010        | 236                   | 3.41              |
| 13           | 2009        | 192                   | 2.77              |
| 14           | 2008        | 181                   | 2.61              |
| 15           | 2007        | 128                   | 1.85              |
| 16           | 2006        | 76                    | 1.09              |
| 17           | 2005        | 49                    | 0.70              |
| 18           | 2004        | 38                    | 0.55              |
| 19           | 2003        | 43                    | 0.62              |
| 20           | 2002        | 31                    | 0.45              |
| 21           | 2001        | 31                    | 0.44              |
| 22           | 2000        | 41                    | 0.59              |
| 23           | 1999        | 31                    | 0.44              |
| 24           | 1998        | 27                    | 0.39              |
| 25           | 1997        | 17                    | 0.24              |
| 26           | 1996        | 18                    | 0.26              |
| 27           | 1995        | 21                    | 0.30              |
| 28           | 1994        | 29                    | 0.41              |
| 29           | 1993        | 17                    | 0.24              |
| 30           | 1992        | 11                    | 0.15              |
| 31           | 1991        | 13                    | 0.18              |
| 32           | 1990        | 9                     | 0.13              |
| 33           | 1989        | 14                    | 0.20              |
| 34           | 1988        | 14                    | 0.20              |
| 35           | 1987        | 18                    | 0.26              |
| 36           | 1986        | 19                    | 0.27              |
| 37           | 1985        | 10                    | 0.14              |
| 38           | 1984        | 11                    | 0.15              |
| 39           | 1983        | 1                     | 0.01              |
| 40           | 1982        | 7                     | 0.10              |
| 41           | 1981        | 3                     | 0.04              |
| 42           | 1980        | 5                     | 0.07              |
| 43           | 1979        | 5                     | 0.07              |
| 44           | 1978        | 5                     | 0.07              |
| 45           | 1977        | 9                     | 0.13              |
| 46           | 1975        | 5                     | 0.07              |
| 47           | 1974        | 5                     | 0.07              |
| 48           | 1970        | 1                     | 0.01              |
| 49           | 1969        | 1                     | 0.01              |
| 50           | 1968        | 1                     | 0.01              |
| 51           | 1967        | 2                     | 0.02              |
| 52           | 1961        | 2                     | 0.02              |
| 53           | 1959        | 2                     | 0.02              |
| 54           | 1958        | 1                     | 0.01              |
| 55           | 1957        | 1                     | 0.01              |

#### 5.4 Source titles used by Jordanian researchers

The table 4 shows the top 20 source titles which are mostly represented by the journals. It is observed that the Dirasat Human and Social Sciences journal has been widely used for publishing the social science research results. About 13 % of the social literature has been published only in this journal. The reason may be the local journal published from the University of Jordan, however its citescore is very less as compared to the other top contributing journals in the list. The journals European Journal of Social Sciences with 145 records published by European Journals Inc. and the Mediterranean Archaeology and Archaeometry with 101 records published by University of the Aegean have also been the top priority of social science research in Jordan. Among all the top 20 source titles, the journal Sustainable Cities and Society is with the highest citescore of 10.7 which has been used for 35 publication the Jordanian researchers in the field.

**Table - 4: Top 20 Source Titles**

| S.N. | Name of the Journal   | Publisher   | Cite Score (2020) | No. of Records | %age  |
|------|---|---|-------------------|----------------|-------|
| 1    | Dirasat Human and Social Sciences                                   | University of Jordan  | 0.1               | 954            | 13.80 |
| 2    | European Journal of Social Sciences                                 | European Journals Inc.                                      | NA*               | 145            | 2.09  |
| 3    | Mediterranean Archaeology and Archaeometry                          | University of the Aegean                                    | 1.2               | 101            | 1.46  |
| 4    | Sustainability Switzerland  | Multidisciplinary Digital Publishing Institute (MDPI)       | 3.9               | 83             | 1.20  |
| 5    | Jordan Journal of Modern Languages and Literatures                  | Yarmouk University  | 0.1               | 76             | 1.09  |
| 6    | Asian Social Science  | Canadian Center of Science and Education                    |                   | 64             | 0.92  |
| 7    | Journal Of Legal Ethical And Regulatory Issues                      | Allied Business Academies                                   | 1.1               | 57             | 0.82  |
| 8    | International Journal Of Emerging Technologies In Learning          | International Association of Online Engineering             | 2.6               | 55             | 0.79  |
| 9    | International Journal Of Scientific And Technology Research         | International Journal of Scientific and Technology Research | 0.2               | 55             | 0.79  |
| 10   | International Journal Of Arabic English Studies                     | Librairie du Liban Publishers                               | 0.6               | 48             | 0.69  |
| 11   | Journal Of Institutional Research South East Asia                   | South-East Asia Association for Institutional Research      | 0.4               | 48             | 0.69  |
| 12   | Journal Of Educational And Social Research                          | Richtmann Publishing Ltd.                                   | 0.5               | 44             | 0.63  |
| 13   | Journal Of The Social Sciences                                      | Academic Publication Council                                | 0.3               | 44             | 0.63  |
| 14   | Arab Law Quarterly  | Brill   | 0.3               | 42             | 0.60  |
| 15   | International Education Studies                                     | Canadian Center of Science and Education                    | NA                | 39             | 0.56  |
| 16   | International Journal Of Learning Teaching And Educational Research | Society for Research and Knowledge Management               | 0.6               | 36             | 0.52  |
| 17   | Levant  | Taylor & Francis  | 2.0               | 36             | 0.52  |
| 18   | Sustainable Cities And Society                                      | Elsevier  | 10.7              | 35             | 0.50  |
| 19   | Water (Switzerland)   | Multidisciplinary Digital Publishing Institute (MDPI)       | 3.7               | 34             | 0.49  |
| 20   | Journal Of Information And Knowledge Management                     | World Scientific  | 1.5               | 33             | 0.47  |

\*(coverage discontinued in Scopus)

## 5.5 Funding/Sponsoring agencies for conducting the research

The funding for any research milestone is very important part in not only collecting and analysing the data but also to publish in high quality open access journals. The Jordanian researchers have published about 3732 publications in various modes of open access and may have been the utilized the funds of the agencies in publishing their research. The table 5 shows that list of funding and sponsoring agencies which have been providing funds for the publications and conduction of the research. It is found that Jordan University of Science and Technology has sponsored maximum number of publications followed by University of Jordan and Fogarty International Center.

**Table - 5: Top 20 Funding/ Sponsoring Agencies**

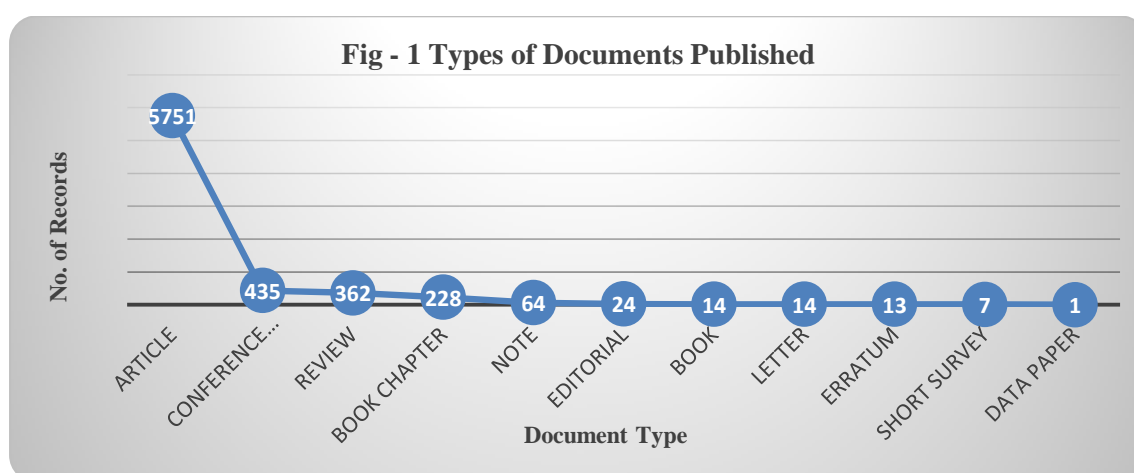
| S. N. | Funding Agencies/ Sponsors  | No. of Publications | Percentage |
|-------|---|---------------------|------------|
| 1     | Jordan University of Science and Technology                                     | 67                  | 0.96       |
| 2     | University of Jordan  | 42                  | 0.60       |
| 3     | Fogarty International Center  | 33                  | 0.47       |
| 4     | Yarmouk University  | 31                  | 0.44       |
| 5     | Deanship of Academic Research, University of Jordan                             | 30                  | 0.43       |
| 6     | National Institutes of Health   | 28                  | 0.40       |
| 7     | European Commission   | 22                  | 0.31       |
| 8     | National Science Foundation   | 22                  | 0.31       |
| 9     | Deanship of Scientific Research, King Saud University                           | 20                  | 0.28       |
| 10    | Middle East University  | 19                  | 0.27       |
| 11    | Eunice Kennedy Shriver National Institute of Child Health and Human Development | 17                  | 0.24       |
| 12    | Hashemite University  | 17                  | 0.24       |
| 13    | United States Agency for International Development                              | 16                  | 0.23       |
| 14    | Applied Science Private University  | 14                  | 0.20       |
| 15    | King Saud University  | 14                  | 0.20       |
| 16    | German Research Foundation (Deutsche Forschungsgemeinschaft)                    | 10                  | 0.14       |
| 17    | Arts and Humanities Research Council  | 9                   | 0.13       |
| 18    | Zarqa University  | 8                   | 0.11       |
| 19    | Consortium of International Agricultural Research Centers                       | 7                   | 0.10       |
| 20    | Deanship of Scientific Research, King Faisal University                         | 7                   | 0.10       |

## 5.6 Types of Documents used by the Researchers in Social Science

The table 6 shows the list of document types used for publication and it is found that the Jordanian researchers have used 11 types of documents with majority of the contributions in the form of journal articles having 83.19 % of records followed by conference papers with 6.29%, reviews with 5.23% and book chapter with 3.29 % as the portion of records published by social scientists in Jordan. It is clear from figure 1 that the maximum contributions from the Jordan in the field of social sciences are the articles.

**Table - 6: Types of Documents**

| S. N. | Document Type    | No. of Records | Percentage |
|-------|------------------|----------------|------------|
| 1     | Article          | 5751           | 83.19      |
| 2     | Conference Paper | 435            | 6.29       |
| 3     | Review           | 362            | 5.23       |
| 4     | Book Chapter     | 228            | 3.29       |
| 5     | Note             | 64             | 0.92       |
| 6     | Editorial        | 24             | 0.34       |
| 7     | Book             | 14             | 0.20       |
| 8     | Letter           | 14             | 0.20       |
| 9     | Erratum          | 13             | 0.18       |
| 10    | Short Survey     | 7              | 0.10       |
| 11    | Data Paper       | 1              | 0.01       |



### 5.7 Top Contributing Social Science Authors

It is always necessary to identify the prolific authors who contributed their research in different disciplines and hence the table 7 shows the list of top 10 authors who have contributed majority of the publications to the Jordanian social science research. The Khasawneh, S and Al-Hassan, S.M both from Hashemite University have contributed 25 and 23 publications respectively in the field and the latter author is also having highest h-index. The author Jarrah, M. from the University of Jordan have contributed also 23 publications.

**Table - 7: Top 10 Authors**

| S. N. | Author           | Affiliation                     | H-Index (2021) | No. of Records | Percentage |
|-------|------------------|---------------------------------|----------------|----------------|------------|
| 1     | Khasawneh, S.    | Hashemite University            | 10             | 25             | 0.36       |
| 2     | Al-Hassan, S.M.  | Hashemite University            | 21             | 23             | 0.33       |
| 3     | Jarrah, M.       | The University of Jordan        | 5              | 23             | 0.33       |
| 4     | Al-Khatib, A.    | Jordan University of S & T      | 10             | 21             | 0.30       |
| 5     | Al-Bashaireh, K. | Yarmouk University              | 9              | 20             | 0.28       |
| 6     | Nassar, M.       | The University of Jordan        | 4              | 19             | 0.27       |
| 7     | Haider, A.S.     | Applied Sci. Private University | 5              | 18             | 0.26       |
| 8     | Ihmeideh, F.     | Hashemite University            | 10             | 18             | 0.26       |
| 9     | Badarneh, M.A    | Jordan University of S & T      | 6              | 17             | 0.24       |
| 10    | Wazaify, M.      | The University of Jordan        | 17             | 17             | 0.24       |



## 5.8 Top Contributing Social Science Research Institutes

The table 8 shows the list of only 20 top research institutes which have contributed in the production of social science research in Jordan. It is found that the University of Jordan is leading all the institutes in the country with 1746 number of publications contributing about 25 % of the total literature in the field. This is followed by Yarmouk University and Hashemite University with 985 and 825 publications contributing about 14% and 11% of the literature in the field of social sciences respectively. The Al-Balqa Applied University has produced 625 publications contributing about 9% and Jordan University of Science and Technology with 580 contributing 8% of the literature in the field of social sciences.

**Table - 8: Top 20 Research Institutes**

| S. N.        | Affiliation                        | No. of Records | Percentage |
|--------------|------------------------------------|----------------|------------|
| 1            | The University of Jordan           | 1746           | 25.25      |
| 2            | Yarmouk University                 | 985            | 14.24      |
| 3            | Hashemite University               | 825            | 11.93      |
| 4            | Al-Balqa Applied University        | 625            | 9.04       |
| 5            | Jordan University of S and T       | 580            | 8.38       |
| 6            | Mutah University                   | 212            | 3.06       |
| 7            | Al Al-Bayt University              | 205            | 2.96       |
| 8            | Princess Sumaya University         | 195            | 2.82       |
| 9            | Al-Hussein Bin Talal University    | 187            | 2.70       |
| 10           | Al-Ahliyya Amman University        | 177            | 2.56       |
| 11           | Applied Science Private University | 160            | 2.31       |
| 12           | German Jordanian University        | 156            | 2.25       |
| 13           | Al-Zaytoonah University of Jordan  | 147            | 2.12       |
| 14           | Zarqa University                   | 140            | 2.02       |
| 15           | Middle East University, Jordan     | 133            | 1.92       |
| 16           | University of Petra                | 126            | 1.82       |
| 17           | Philadelphia University Jordan     | 97             | 1.40       |
| 18           | Tafila Technical University        | 78             | 1.12       |
| 19           | Isra University                    | 75             | 1.08       |
| 20           | Jadara University                  | 64             | 0.92       |
| <b>Total</b> |                                    | <b>6913</b>    | <b>100</b> |

## 5.9 Highly Cited Articles in Social Science

The total Jordanian social science publications have received a total of 35800 citations with an h-index of 65. The table 9 shows the top 10 highly cited articles published by the Jordanian researchers in different journals. The Article-1 in the list which is published in the 'International Journal of Information Management' from Elsevier Ltd is most cited with 424 citations. The article is published by Amman College of Banking and Financial Sciences, Al-Balqa' Applied University. This is followed by article-2 in the journal 'Ambio' from Springer has received a total of 366 citations and is published by ICARDA, Amman, Jordan. It is also found that out of these top highly cited articles, Elsevier publications have dominated the list with five of its publications receiving maximum citations.

**Table - 9: Top 10 Highly Cited Articles**

| S. N. | Title   | Source title                                    | Citations (2021) | Publisher              | One of the Affiliations   |
|-------|---|---|------------------|------------------------|---|
| 1     | Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust                                   | International Journal of Information Management | 424              | Elsevier Ltd           | Amman College of Banking and Financial Sciences, Al-Balqa' Applied University   |
| 2     | Sustainable intensification of agriculture for human prosperity and global sustainability   | Ambio   | 366              | Springer Nature        | ICARDA, Amman, Jordan   |
| 3     | Developing a green building assessment tool for developing countries - Case of Jordan   | Building and Environment                        | 327              | Elsevier Ltd           | Dept. of Architecture, Jordan University of Science and Technology; Dept. of Research and Design, Greater Amman Municipality, Amman, Jordan   |
| 4     | Analysis of pedestrians' behavior at pedestrian crossings   | Safety Science                                  | 263              | Elsevier Ltd           | Civil Engineering Department, Jordan University of Science and Technology   |
| 5     | Short-term prediction of traffic volume in urban arterials  | Journal of Transportation Engineering           | 260              | ASCE                   | Dept. of Civil Engineering, Jordan University of Science and Technology   |
| 6     | Groundwater vulnerability and risk mapping for the Basaltic aquifer of the Azraq basin of Jordan using GIS, Remote sensing and DRASTIC    | Applied Geography                               | 241              | Elsevier BV            | Jordan Badia Research Development Program Safawi, Mafraq, Jordan  |
| 7     | Effect of rainfall intensity, slope, land use and antecedent soil moisture on soil erosion in an arid environment                         | Land Degradation and Development                | 235              | Wiley-Blackwell        | ICARDA, Amman, Jordan; Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan   |
| 8     | Patterns and universals of adult romantic attachment across 62 cultural regions: Are models of self and of other pan cultural constructs? | Journal of Cross-Cultural Psychology            | 206              | SAGE Publications Inc. | University of Jordan, Jordan  |
| 9     | Food system resilience: Defining the concept  | Global Food Security                            | 202              | Elsevier B.V.          | International Center for Agricultural Research in Dry Areas, Amman, Jordan  |
| 10    | Consumer attitudes towards online shopping: The effects of trust, perceived benefits, and perceived web quality                           | Internet Research                               | 168              | Emerald Group          | Deptt. of Management Information Systems, The University of Jordan, Amman, Jordan; The German Jordanian University, Amman, Jordan; Overseas Project Development Department, Jinko Solar Co., Ltd, Amman, Jordan |

## 5.10 Status of Research collaboration in Social Sciences in Jordan

The table 10 shows the top 20 countries which have been collaborated by the researchers of Jordan in the field of social sciences. It is found that the United States of America is the highest collaborated country of Jordan in the field with 542 publications as commonly produced by collaboration. This is followed by United Kingdom with 338 publications, United Arab Emirates with 267, and Saudi Arabia with 263 collaborated publications. It can be observed that the number of collaborations are widely distributed among the middle east and western countries except Malaysia and India which has shown a collaboration of 119 and 55 research publications.

**Table - 10: Research Collaboration**

| S. N. | Name of the Country  | No. of Records | Percentage |
|-------|----------------------|----------------|------------|
| 1     | United States        | 542            | 7.84       |
| 2     | United Kingdom       | 338            | 4.91       |
| 3     | United Arab Emirates | 267            | 3.86       |
| 4     | Saudi Arabia         | 263            | 3.80       |
| 5     | Malaysia             | 119            | 1.72       |
| 6     | Egypt                | 114            | 1.64       |
| 7     | Australia            | 105            | 1.51       |
| 8     | Germany              | 103            | 1.48       |
| 9     | Canada               | 90             | 1.30       |
| 10    | Qatar                | 74             | 1.07       |
| 11    | Italy                | 72             | 1.04       |
| 12    | Oman                 | 65             | 0.94       |
| 13    | France               | 64             | 0.92       |
| 14    | Sweden               | 57             | 0.82       |
| 15    | India                | 55             | 0.79       |
| 16    | Lebanon              | 49             | 0.70       |
| 17    | Kuwait               | 47             | 0.67       |
| 18    | Spain                | 47             | 0.67       |
| 19    | Palestine            | 44             | 0.63       |
| 20    | Algeria              | 41             | 0.59       |

## 6. Conclusion

The research is the pinnacle of society growth and development which makes the living comfortable and new innovation lead a strong, vibrant and healthy economical world. The properties of varied disciplines reflects their unique patterns of research as we witness the science and technology and its research pursuits in one extreme and social science and arts on the other. There have been many explorations about Jordanian research especially medical and agriculture research output and its analysis, however the social science research and its patterns and attributes in Jordan is a novel study. The present study revealed that the research in Jordan has been always the governmental and institutional priority which can be attested with the fact of substantial research output in the filed of social sciences indexed in Scopus database. The social science research profile in Jordan has started from 1957 with only one publication, however the number of publications increase gradually to 1050 in the year 2021 with a total of 6913 research records in the database. One of the important parameter which

was revealed is that the research institutes are supporting the open access publications and almost 40% of the total literature in the field was published in different modes of open access. The journals followed by conference papers, highly skewed top contributing research institutes, source title publications and country collaboration have been also an attribute of Jordanian social science research. A natural trend of earlier established universities with greater research output as compared to the newly established universities have also been reflected from the analysis of the social science output in Jordan.

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