

LOG ANALYSIS AND DATA USAGE STATISTICS OF JOURNALS STORAGE (JSTOR) DATABASE AMONG THE RESEARCH SCHOLARS OF FACULTY OF SOCIAL SCIENCES, AMU

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The study sets out to assess the log analysis and usage statistics of JSTOR database by the researchers of Faculty of Social Sciences of Aligarh Muslim University, Aligarh. Using JSTOR database logs of two years - 2015 and 2016, the usage statistics was analyzed. The log data was provided by the Maulana Azad Library, AMU. The major findings of the study revealed that the researchers of Department of Economics used JSTOR database extensively and recoded maximum numbers of downloads in two years, on the other hand researchers of Social Works Department maintained least number of downloads. As far as, the growth of usage concerned, again the researchers of Economics Department gained top place and the lowest rank occupied by researchers of Department of Psychology. Moreover, it is noted that JSTOR database lists 3281 and 3709 journals in 2015 and 2016 respectively. Out of them Social Science shared 365 journals in 2015 and 416 journals in 2016 that constituted 11.12% and 11.21% of all journals respectively.

Keywords: Online Databases, JSTOR, Use studies, Aligarh Muslim University Aligarh, Faculty of Social Sciences, Researchers

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INTRODUCTION

Today, Indian university libraries are subscribing different types of electronic resources (such as databases, e-journals, e-books etc.) to facilitate its users with latest and exhaustive information in digital and form. If we talk about libraries of research institutes/organizations, these are spending huge amount of money to avail the resources to its researchers. As Arshad and Ameen (2017) mentioned in their study electronic journals makes up a key component of scholarly communications, and availability of these relevant literature reveals a growing trend of usage of e-journals and databases by academia, students, researchers, scientists etc.

Present scenario is witnessing a shift in the development of library collection from traditional print forms of documents to digital form. The databases like JSTOR, Web of Science, Emerald Insight, Scopus, JGate Plus etc. constitute indispensable part of library collection. Specifically, the JSTOR database provides a vital platform of approximately 4000

journals that can be useful to different professionals like doctors, lawyers, scientist, astronomers, academicians, theatre artists, students, researchers and so on. It is said by Gauger and Kacena (2006) that in all situations, JSTOR database facilitates the ability to deliver major serial resources to students or faculty members. It has been successful in providing archival journal support especially for academic libraries and also for other libraries. The member libraries of JSTOR database can download monthly reports on their constituents' usage.

OBJECTIVES OF THE STUDY

- To find out the usage of JSTOR database by the research scholars in the Faculty of Social Science, AMU.
- To identify the top five journals which have maximum number of downloaded articles.
- To bring forth the total numbers of downloaded articles in two year, i.e., 2015 and 2016.
- To discover the number of article downloaded in each discipline

SCOPE AND LIMITATIONS OF THE STUDY

The study is limited to use of JSTOR database in the last two years i.e. 2015 and 2016, confined to disciplines that fall under the Faculty of Social Science, AMU and limited to the research scholars.

METHODOLOGY

The data was collected from Computer Application Centre of Maulana Azad Library, Aligarh Muslim University, Aligarh. The received data comprised of journals from all disciplines such as Science, Home Science, Humanities, Social Sciences etc. Then,

the numbers of journals on social sciences were listed out. After listing the journals, their usage was counted and tabulated using MS-Excel. Finally, the data was presented and interpreted.

FACULTY OF SOCIAL SCIENCES, ALIGARH MUSLIM UNIVERSITY

The Faculty of Social Science was created in 1969 comprising of nine departments namely, Department of Economics, Education, History, Political Science, Sociology, Islamic Studies, West Asian Studies, Library & Information Science and Psychology. Department of Journalism and Mass Communication, Physical health & Sports Education, Women's Studies and Centre for South African & Brazilian Studies were established later on. At present, fourteen Departments/Centers and Interdisciplinary Centre for Development Studies are attached to the Faculty of Social Sciences.

The Faculty of Social Science (AMU) offers 8 undergraduate and 20 post graduate programs in addition to various Diploma and Certificate Courses. The faculty is the largest faculty of AMU in terms of enrolled students. There are 2719 students, including under-graduate 1176, Post-graduate 1053 Research Scholars 490. Number of Foreign Students enrolled in different programs are 96.

Brief Introduction: JSTOR

The idea of establishing JSTOR was conceived by William G. Bowen, then-President of The Andrew W. Mellon Foundation. In 1995, a project was launched under the direction of the University of Michigan. This project ended with the establishment of JSTOR as an independent not-for-profit organization. In 2009, JSTOR merged with and became a service of ITHAKA. At present, the noted database JSTOR is a digital library of academic journals, books, and primary sources.

REVIEW OF RELATED STUDIES

Many studies have been conducted on the use and perception of e-resources, particularly on the usage of databases, e-journals, repositories etc. Some of the remarkable studies have been reviewed here. Among them, one of the latest study by Kumar and Lalita(2017) which analyzes and presents findings on the most economical as well as expensive electronic database subscribed by the Delhi University. Major findings show that in case of foreign databases, the cost for per document use has been increased by 41.77 per cent in last ten years. They further explore that the Britannica Online has been the most economical database costing Rs.2.33 per item use and World Intellectual Property Search as most expensive costing Rs.14,902.19 per item use. The study concludes with the statement that University of Delhi had saved substantial amount by subscribing these databases instead of purchasing these article from open market.

The study by Leduce and Sehapfel (2015) made a comparison of electronic resources' use among top ranked French Business Schools includes: HEC, ESSEC, INSEAD. The findings of the study reveal that the usage of e-resources appeared to be comparatively intensive, especially when compared to usage statistic from universities in the same field. Besides, on the basis of results, the authors recommend that business schools should enhance usage and efficiency of subscribed digital resources. Results of studies by Nisha and Ali (2013), Chirra and Madhusudhan(2009) and Atakanet. Et al. (2008) show that majority of students are found aware of digital resources and used them extensively. For example, the study of Chirra and Madhusudhan reported findings of a survey on use of electronic journals by doctoral research scholars of Goa University reveal that all (100%) respondents are aware of the e-journals of the Consortium and accessed them. Another study of similar area is the one conducted by Kumar (2010) on the group of students of management, engineering and medical science in Bangalore. The students of all branches

of studies are found to be aware of e-resources and internet. Their major purpose to use e-resources is for academic related task. A very few number of respondents preferred print sources of information over e-resources. Concluding the study, Kumar suggests that librarians need to expand the availability of electronic resources for the students and faculties.

A more detailed study carried out by Wu and Chen(2012)investigated graduate students perception towards electronic resources and their usage pattern. The authors found that graduate student were using e-resources very frequently and more particularly at the time of thesis writing. The respondents of science and technology perceived that e-resources are more important to their research work, than students of other discipline do. Another significant study conducted by Qasim and Khan(2015)to analyze the use of e-journals by CSIR laboratory scientists. They used survey method to collect data. The authors reported that almost all scientists (86.4%) access the e-journals from campus cabin. The findings further showed that 97.7% scientists prefer to read available information in PDF form rather any other form. Their major purpose for consulting e-journals was to keep themselves up to date. The findings also found that 90.5% scientists were satisfied using e-journal.

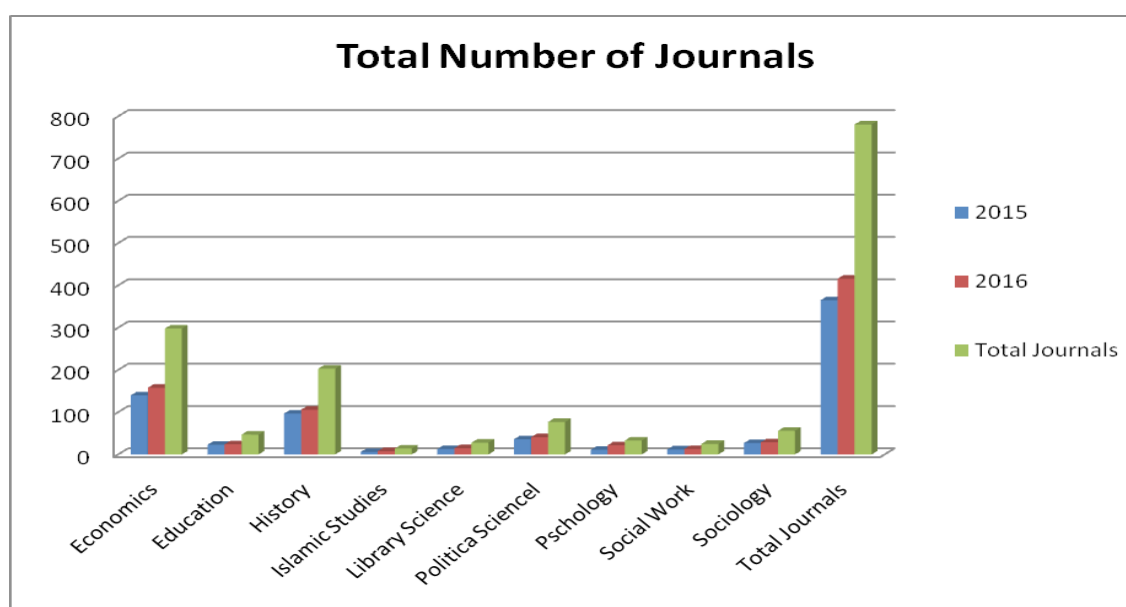
Results and Discussions

Total Number of Journals

Table 1 shows, the status of numbers of journals provided by the JSTOR database in each discipline of social science. Among all disciplines, Economics has maximum number of journals in both years (2015 and 2016), i.e., 140 and 158 journals respectively, followed by History, i.e., 97 and 106 journals respectively. Islamic Studies has a least number of journals, i.e., 6 journals in 2015 and 8 journals in 2016. The status of total number of journals in all disciplines of social sciences is shown in Table 1 i.e., 365 journals in 2015 and 416 journals in 2016 with increment of 51 journals.

Table 1: Total Number of Journals

Subject	2015	2016	Total	Growth
Economics	140	158	298	+18
Education	23	24	47	+1
History	97	106	203	+7
Islamic Study	6	8	14	+2
Library Science	13	15	28	+2
Political Science	36	41	77	+7
Psychology	11	22	33	+11
Social Work	12	13	25	+1
Sociology	27	29	65	+2
Total	365	416	781	+51

**Figure 1**

Top five journals used by researcher in Department of Economics

The table 2 displays the top five journals and the total number of downloaded article by researcher of Economics Department. In 2015, the top place was taken by The American Economic Review with 329 downloads, followed by Journal of Consumer Research with 187 downloads. The American Economic Review shifted to second place in 2016 with 297 downloads and first place acquired by Journal of the Economic and Social History of the

Orient with 313 downloads. The Economic Journal was at the fifth position in both years with 140 and 162 downloads respectively.

Top five journals used by researcher in Department of Education

The table 3 shows, the usage statistics of top five preferred journals by researcher in Department of Education. As exposed in Table 03, the top three places were taken by the same journals in both years, i.e., Review of Educational Research, The

Table 2: Top five journals used by researchers in Department of Economics

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	The American Economic Review	329	Journal of the Economic and Social History of the Orient	313
2	Journal of Consumer Research	187	The American Economic Review	297
3	Econometrica	140	Annals of the American Academy of Political and Social Science	211
4	Economic Development and Cultural Change	140	Economic Development and Cultural Change	172
5	The Economic Journal	140	The Economic Journal	162

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Journal of Educational Research and Comparative Education Review, at first, second and third place respectively. In 2015, the fifth place was acquired by Higher Education with 60 downloads. The Higher Education shifted to fourth place in 2016 and fifth position was taken by American Educational Research Journal with 66 downloads.

Top five journals used by researcher in Department of History

The table 4 unfolds the top five journals and their usage by the research scholar of the Department of History. In 2015, the top rank was secured by Comparative Studies in Society and History with 82 downloads, followed by History and Theory with 65 downloads. The journal History and Theory possessed first place in 2016 with 75 downloads,

Table 3: Top five journals used by researchers in Department of Education

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	Review of Educational Research	99	Review of Educational Research	118
2	The Journal of Educational Research	88	The Journal of Educational Research	112
3	Comparative Education Review	76	Comparative Education Review	77
4	International Review of Education	68	Higher Education	76
5	Higher Education	60	American Educational Research Journal	66

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Table 4: Top five journals used by researchers in Department of History

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	Comparative Studies in Society and History	82	History and Theory	75
2	History and Theory	65	Journal of World History	47
3	Journal of Asian History	46	Journal of Asian History	39
4	Journal of World History	39	The Journal of American History	36
5	The International History Review	28	The Journal of Modern History	30

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followed by Journal of World History with 47 downloads.

Top five journals used by researcher in Department of Islamic Studies

The table 5 represents the top five journals and their use statistics by the researchers. In 2015 Islamic Studies was leading journal with 368 downloads followed by Studia Islamica with 51 downloads at second position and third position was earned by Islamic Law and Society with 25 downloads. Again these three journals attained same position in 2016 with slightly more downloads. The journal Ars Islamica was at last place with only 2 downloads in 2016.

Top five journals used by researcher in Library and Information Science Department

The table 6 unveils the usage statistic of top five journals in the field of library science. As shown in the table, the top position was grabbed by The Library Quarterly: Information, Community, Policy with 167 downloads in 2015 and also grabbed same

position with 145 downloads in 2016. The fifth place was grabbed by Bulletin of the American Library Association with only 6 download in 2015. The Huntington Library Quarterly grabbed fifth position in 2016 with 12 downloads.

Top five journals used by researcher in Political Science Department

The table 7 unfurls the usage data of top five journals in the field of Political Science. As displayed in the table the first place in 2015 was earned by The Indian Journal of Political Science with 664 downloads followed by Annals of the American Academy of Political and Social Science with 214 downloads and third place was earned by Journal of Political Economy with 193 downloads. In the 2016, the first place again earned by The Indian Journal of Political Science with 815 downloads, followed by the same journal, i.e., Annals of the American Academy of Political and Social Science with 211 downloads. The fifth place was earned by Political Science Quarterly with 120 downloads.

Table 5: Top five journals used by researchers in Department of Islamic Studies

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	Islamic Studies	368	Islamic Studies	404
2	StudiaIslamica	51	StudiaIslamica	58
3	Islamic Law and Society	25	Islamic Law and Society	25
4	ArsIslamica	6	Islamic Africa	5
5	Islamic Africa	3	ArsIslamica	2

Table 6: Top five journals used by researchers in Library and Information Science Department

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	The Library Quarterly: Information, Community, Policy	167	The Library Quarterly: Information, Community, Policy	145
2	Journal of Education for Library and Information Science	123	Journal of Education for Library and Information Science	116
3	The Journal of Library History (1974-1987)	29	The Journal of Library History (1974-1987)	23
4	Huntington Library Quarterly	7	Journal of Education for Library and Information Science	18
5	Bulletin of the American Library Association	6	Huntington Library Quarterly	12

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Top five journals used by researcher in Department of Psychology

As showed in Table 8, the top place in 2015 in the field of psychology was obtained by Social Psychology Quarterly with 45 downloads, followed by The American Journal of Psychology with 44 downloads and fifth position attained by Educational Psychology Review with 19 downloads. Again in 2016 the first position was locked up by Social Psychology Quarterly with slightly more downloads i.e., 59 downloads, followed by European Journal of Psychology of Education with 35 downloads. Again the fifth position was obtained by Educational Psychology Review with addition of 4 more downloads, i.e., 23 downloads in 2016.

Top five journals used by researchers in Department of Social Work

It is known from the table 9 that the journal Social work picked up the first place in 2015 with 67

downloads, followed by The British Journal of Social Work with 31 downloads. The fifth position was picked up by Canadian Social Work Review with only 5 download in 2015. In 2016, the first position was picked up by The British Journal of Social Work with 71 downloads and Social work descended to second place with 62 downloads. The journals Social Work Research possessed fifth rank with 16 download in 2016.

Top five journals used by researcher in Department of Sociology

The table 10 reveals the data usage by researchers among top five journals in the field of sociology. The journal Social Scientist achieved first rank in both years with 787 and 847 downloads respectively. The above position was followed by American Journal of Sociology with 300 downloads in 2015 and by Sociological Bulletin with 373 downloads in 2016. The last position in 2015 was achieved by

Table 7: Top five journals used by researchers in Political Science Department

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	The Indian Journal of Political Science	664	The Indian Journal of Political Science	815
2	Annals of the American Academy of Political and Social Science	214	Annals of the American Academy of Political and Social Science	211
3	Journal of Political Economy	193	Journal of Political Economy	130
4	International Affairs (Royal Institute of International Affairs 1944-)	141	The American Political Science Review	124
5	The American Political Science Review	130	Political Science Quarterly	120

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Table 8: Top five journals used by researchers in Department of Psychology

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	Social Psychology Quarterly	45	Social Psychology Quarterly	59
2	The American Journal of Psychology	44	European Journal of Psychology of Education	35
3	Journal of Business and Psychology	32	The American Journal of Psychology	32
4	Political Psychology	21	Journal of Business and Psychology	27
5	Educational Psychology Review	19	Educational Psychology Review	23

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Table 9: Top five journals used by researchers in Department of Social Work

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	Social Work	67	The British Journal of Social Work	71
2	The British Journal of Social Work	31	Social Work	62
3	Journal of Social Work Education	22	Journal of Education for Social Work	30
4	Journal of Education for Social Work	7	Journal of Social Work Education	30
5	Canadian Social Work Review	5	Social Work Research	16

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American Sociological Review with 186 downloads and in 2016, it was achieved by Annual Review of Sociology with 120 downloads.

Total number of downloaded article in all discipline

The table 11 makes it clear that total numbers of downloaded articles in both years are 18050. The discipline wise downloads shows that Economics has a very high number of downloads i.e., 6543

downloads in both years, followed by Political Science with 3395 downloads, History with 2887 downloads, Sociology with 1759 downloads, Education with 1044 downloads, Islamic Studies with 946 downloads, Library Science with 718 downloads and Psychology with 391 downloads. However, the discipline Social Works takes last place with only 368 downloads in both years i.e., 2015 and 2016.

Table 10: Top five journals used by researchers in Department of Sociology

Sr. No.	2015		2016	
	Journal Name	AD	Journal Name	AD
1	Social Scientist	787	Social Scientist	847
2	American Journal of Sociology	300	Sociological Bulletin	373
3	Sociological Bulletin	232	American Sociological Review	210
4	Social Indicators Research	188	Social Forces	121
5	American Sociological Review	186	Annual Review of Sociology	120

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Table 11: Total number of downloaded articles in both the years

Sl. No.	Subject	2015	2016	Total	Differences
1	Economics	3117	3426	6543	+309
2	Education	408	636	1044	+228
3	History	1177	1710	2887	+533
4	Islamic Studies	453	493	946	+40
5	Library Science	340	378	718	+38
6	Political Science	1637	1757	3394	+120
7	Psychology	189	202	391	+13
8	Social Work	140	228	368	+88
9	Sociology	830	929	1759	+99
Total		8291	9759	18050	+1468

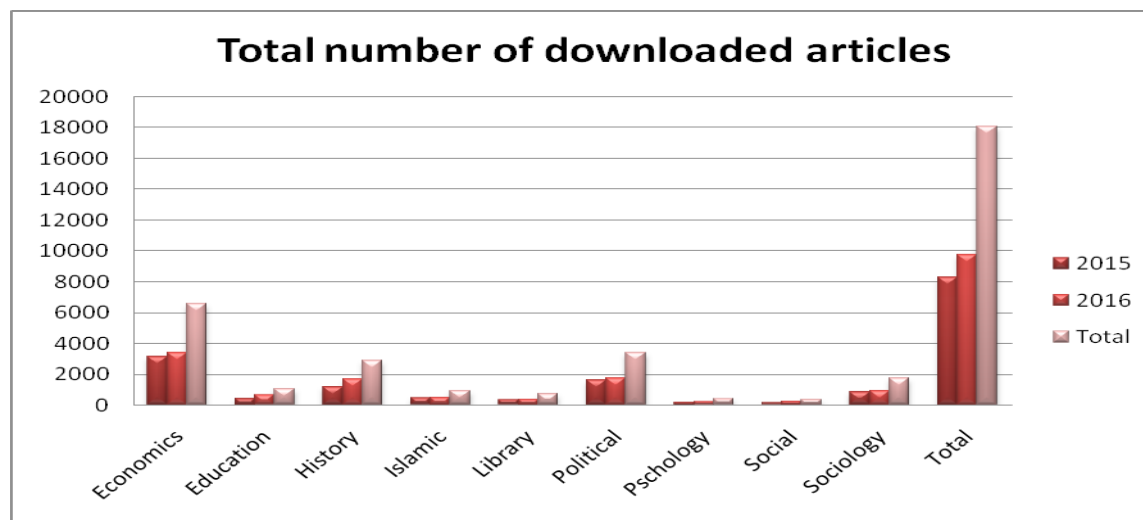


Figure 2

CONCLUSION

The JSTOR database is a key source intensive literature which provides an enormous platform of information to the researchers and other professionals. The users of AMU Library obtained a remarkable benefit from this database for their research activities. However, the numbers of journals in Social Sciences discipline were found very less in comparison to other sciences, but the users seem interested to make use of available information. Hence, it is suggested to JSTOR managerial team to increase the number of journals in the field of Social Science so that the researchers could use it more effectively.

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