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A Bibliometric Analysis of Journal of Higher Education Management (JHEM) from 2007 to 2016

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**A Bibliometric Analysis of Journal of Higher Education Management
(JHEM) from 2007 to 2016**

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Abstract

Although several bibliometric journal studies on education have been carried out, surprisingly, no bibliometric study has been carried out on the Journal of Higher Education Management (JHEM), being the foremost journal for university administrators. This study is therefore an attempt to fill this gap in the context of bibliometric analysis of single journals. The purpose of this bibliometric study was to examine the publication characteristics and developments of JHEM over an eight (8) year period from 2007 to 2016. The following bibliometric measures were analysed in this study: (a) productivity of articles, (b) productivity of authors, (c) degree of author collaboration, (d) listings of core authors, (e) Institution and country affiliations of authors, (e) types of sources cited by researchers, (f) timeliness of sources cited by researchers, (g) rank list of frequently cited journal titles and (h) rank list of frequently cited authors (i) to identify the types of sources cited by authors in JHEM. The results revealed a total of 83 articles and 1,821 citations within the period of study. Single authors had the highest number of papers with 54% of the total number of papers and degree of collaboration ranged between 0.14 – 0.67. The Journal of Higher Education was the most sighted journal with a total of 27 citations. In addition, the results revealed that JHEM had a low self-citation with a total of 7 citations out of the total number of citations. The findings suggests that JHEM needs to increase its indexed databases, in order to boost awareness of the journal, there is also need for multidisciplinary collaborations to encourage a wide variety of authorship. Also, the number of annual issues should be increased from the current single annual issue to enable the publication of more articles.

Key words: Bibliometrics, Citation analysis, Journal of Higher Education Management, Indicators, Single Journal

Introduction

Bibliometrics, being the statistical or quantitative analysis of publications, (Holden, Rosenberg, & Barker, 2006) when performed on a single journal enables an image of the journal to be created, providing insights that describe the characteristics, output and impact of the journal in detail using several quantitative indicators. Therefore, the benefits of bibliometrics is that it helps in identifying and prioritising publications to read (Cronin & Sugimoto, 2014) as well as identifying potential research collaborators (Reed, 2015). Bibliometrics can also help an institution locate its research strength in order to gauge or measure its performance (Todeschini & Baccini, 2016).

Furthermore, bibliometric analysis of single journals is an important way of assessing in detail the trends occurring in articles published within a particular period in that journal. The results from such studies are of importance to publishers, researchers and editors interested in the journal. Accordingly, if the journal is highly valued in that discipline or field, a bibliometric study can indicate the evolution and present state of research within that journal (Giske, 2008). By so doing, can influence future work in that field, either by changing future research focus, facilitating the choice of future collaborators and prioritizing the choice of journal acquisition to be made by librarians, thus saving costs (Dechiel, 2016).

In carrying out bibliometric studies, an initial consideration is obtaining a representative sample of articles. This present study incorporates the entire articles from Journal of Higher Education Management, hereafter referred to as JHEM over an 8 year period. This is necessary, considering that this is the first attempt of undertaking bibliometric analysis in JHEM. However, no clear consensus exists in the literature on an appropriate sample size to use in a bibliometric analysis since disciplines vary (Connaway & Powel, 2010). Considerations on sample size might depend on the study objectives, the nature of the journal or whether bibliometric analysis has been performed earlier and only newer articles require investigation (Roemer & Borchardt, 2015). Bibliometric analysis of single journals might examine the entire articles in the period under investigation; while others make use of articles drawn from selected years spaced over the period under investigation; in other cases, an inclusion and exclusion criterion is used to select articles. For example (Dauphinee, Peipert, Phipps, & Weitzen, 2005) selected the first 75 articles drawn from three years over a 10 year period. Nevertheless, (Lijina, 2018) explored the Journal of Information Science from 2012 to 2017. The study, found

out that Issue No.3 (September to December, 2016) had the highest number of articles. Also out of the 161 articles, 45 (27.95%) articles were from single authors. India had the highest number of 138 (85.19%) articles and for state wise distribution of articles, Tami Nadu had the highest number of 119 (73.91%) and the degree of collaboration was 0.72 indicating high level of collaboration. Likewise, (Jimoh, Eshiemokhai, & Hambali, 2014) Studied International Journal of Research in Education within a 9 year period from 2004 to 2012. The findings revealed that Volume 8 (2011) had the highest number of length of pages with 477pages. Also for the year wise distribution of articles, 2011 had the highest number of 49 (14.1%) articles and 708 citations out of the total number of 347 articles. Single authored articles were 226 (65.1%) articles. Nigerian authors had the highest number of 327(94.2%) articles and universities topped for institutional affiliations with 145 (41.8%) articles. Books were the most cited resources with a total of 1902 (40.9%) citations. For subject coverage, Curriculum and teaching was the most frequently used subject with 108 (31.3%) articles.

In addition, (Raja & Murugan, 2015) studied the Journal of Research and Reflection on Education within a 10 year period from 2004 to 2013. Their findings revealed that 2007 had the highest number of 30 (11.32%) articles. Single authors had 92(34.72%) articles. Also for designation and Institutional wise author distribution of articles, Professors, Associate Professors and Assistant Professors in Universities were ranked highest with 323 (71.94%) authors. For geographical distribution of publications, state level studies topped the rank with 221 (71.94%) articles. The highest number of pages covered by articles was within 01 – 05 pages in 225 (85.20%) articles. For ranking of subject-wise articles, teaching skills was the highest.

Furthermore, (Awasthi, 2015) Studied Library Trend Journal for a period of seven years from 2008 – 2014. The study revealed that 2013-2014 had the highest number of 47 (18%) articles. Issues during summer was ranked top with the highest number of 76 articles. Single authors had the highest number of 145 (55.55%) articles. Article length within the range of 11-21 pages were ranked highest with 156 (59.77%) articles. Also, 2013 to 2014 had the highest number of 1901 (21.94%) citations. In addition, authorship pattern of citation revealed that single authors had the highest number of 6640 (77.38%) citations.

The journal of Business Economics was also studied from 2008 to 2013 by (Swain, Swain, & Rautaray, 2014). The findings revealed that articles were the most used type of contributions with 143 (76.47%) contributions. 2012 had the highest number of pages with an average of 10

pages per article. Also, 2010 had the highest number of 33 articles. Single authors had the highest number of 128 (68.45%) articles and the degree of collaboration was reported to be 0.26. this indicates that the Journal is being dominated by single authors. The keyword ‘financial crises’ with a frequency of 18 was the most frequently appeared keyword. United States had the highest number of 170 (90.91%) papers. Gross A. C., from USA was the most prolific author with 8 articles. Majority of the articles were affiliated to institutions in USA and Cleveland State University Ohio, USA had the highest number of 9 authors.

No bibliometric attempt to the best of the author’s knowledge has been carried out in the Journal of Higher Education Management. In other words, the near lack of quantifiable information on the evolution and current state of published research in the Journal of Higher Education Management (JHEM) being the foremost journal of the American Association of University Administrators is a potential problem in the field of Higher Education Management. This study is therefore an attempt to fill this gap in the context of bibliometric analysis of single journals.

The study is therefore aimed at quantifying publications in the Journal of Higher Education Management (JHEM) using some selected bibliometric indicators in order to detect trends in JHEM over an 8 year period.

The specific objectives of the study are as follows:

1. To determine the productivity of articles published in JHEM
2. To determine the productivity of authors publishing in JHEM
3. To determine the degree of author collaboration In JHEM
4. To determine the core authors in JHEM
5. To determine the Institution and country affiliation of authors in JHEM
6. To identify the types of sources cited by researchers in JHEM
7. To identify the timeliness of sources cited by researchers in JHEM
8. To develop a rank list of frequently cited journal titles in JHEM
9. To develop a rank list of frequently cited authors in JHEM

Methodology

The Journal of Higher Education Management (JHEM) is published by the American Association of University Administrators. One issue of the journal is published annually and all articles published in the years 2007, 2009, 2010, 2012, 2013, 2014, 2015 and 2016 were used for the study with the exclusion of the years 2008 and 2011 because no issue was available. The journal is freely downloadable and MS Excel® was used to carry out the analysis. The indicators are explained as follows:

Article productivity: This is a measure of the number of articles published in a journal by a particular scholar. It is generally measured by counting the number of articles published in a given year alongside the number of volumes and issues released. Accordingly, the number of articles published per year is used to gauge productivity over time.

Author productivity pattern: This measures the number of authors per article in order to assess the degree of collaboration in the journal; the results give an indication of the interdisciplinary nature of the discipline or interest of researchers in the discipline. Furthermore, the degree of collaboration (DC) of the contributors was obtained using the (Subramanyam, 1983) formula which states that the degree of collaboration is the ratio between the number of multiple authored papers and the number of multiple authored papers plus number of single authored papers. The Subramanyam formula can be expressed as follows:

$$DC = \frac{NM}{NM + NS}$$

Where DC = Degree of collaboration

NM = Number of multiple authored papers

NS = Number of single authored papers

Core authorship: This is measured by ranking the list of frequently occurring authors. It is done by counting the number of times authors appear in articles and this measure can give an indication of the prolific researchers in the discipline.

Institution and country affiliation of authors: This is measured by counting the institution and country of origin affiliated to the lead authors in the articles to give an indication of the international outlook of the journal.

Types of sources cited: This is done by counting the number of articles based on the source used e.g. books, reports, encyclopaedias/ dictionaries, conference proceedings, case studies, acts, thesis/ dissertations, e-resources, newspapers/ magazines, journal articles etc.

Timeliness / years of sources cited: This involves ranking the age of cited references in JHEM. This measure gives an indication of the currency and relevance of references in the discipline. In other words the age or timeliness of citation establishes the functional life of resources in any profession of study. This helps to determine the speed at which an article can be seen as outdated or obsolete in any field of study.

Frequency of cited journals: Journals are ranked by counting the most cited journal titles to the least cited. The measure identifies the important journals authors cite.

Frequency of cited authors: This captures authorities in the discipline. This was done by ranking the authors cited in articles; using the references at the end of each article.

Journal self-citation: This reflects the level of confidence authors publishing in the journal have as a useful source to disseminate their research so much as to cite the journal in their own research output. Journal self-citation is the measure of counting the number of times a journal cites itself as a reliable medium to support author's findings. When a journal has a high self-citation, it indicates the level of acceptance as a good medium to support findings while a low self-citation indicates that contributors derived their literature from other journal sources.

Results and Discussion

Productivity of Articles published in Journal of Higher Education Management

Table 1 shows the distribution of articles and length (in pages) of the articles by year. It is observed that a total number of 83 articles were published within the eight year period. The number of articles published each year varied over the eight year period. 2015 had maximum number of articles (16 articles or 19.28% of the total number of articles published) while 2009 had minimum number of articles (6 articles or 7.23% of the total number of articles published). Another notable point to consider is that the journal appeared once every year with limited number of articles except for the years 2008 and 2011 which had no publications. This could serve as a contributing factor to the setbacks in the growth and progress of the field of study or subject area.

The length of pages increase from 41pages in 2007 to 165pages in 2013. However, there was a decrease in 2014 to 84pages and a subsequent increase to 227pages in 2015. A slight decrease to 221pages was seen in 2016. The average length of page per article ranged between 6 to 15 pages as seen in table 1 below.

Table 1: year-wise productivity of articles published in Journal of Higher Education Management

Year	Number of Articles	Percentage	Length (in pages)	Average length of pages per article
2007	7	8.43	42	6
2009	6	7.23	73	12
2010	8	9.64	115	14
2012	10	12.04	151	15
2013	13	15.66	165	13
2014	9	10.84	84	13
2015	16	19.28	227	14
2016	14	16.87	221	15
Total	83	100	1073	102

Productivity of Authors publishing in the Journal of Higher Education Management

Table 2 and figure 2 gives the year-wise productivity pattern of authors in JHEM. It shows that single authorship have the most productive publication of 45 papers (54.22%). Publications with two authors are 20 papers (24.10%), those with three authors are 10 papers (12.05%), those with four authors are 4 papers (4.82%) and those with five papers are 4 papers (4.82%). It is observed that the average number of authors per article is 1.60. This implies that 134 authors published 83 articles within the period of study. This finding is in line with the many single journal bibliometric studies. For example, (Khaparde, 2011); (Jena, Swain , & Sahoo, 2012); (Tella & Olabooye, 2014); (Singh, Mittal, & Ahmad, 2007); (Swain, Swain, & Rautaray, 2014). On the other hand, international collaboration was observed in two articles in 2012 amongst Rich Harrill (America), Leonardo (Don) A. N. Dioko (China) and Ryan Peterson (Netherlands); S. M. Kuu – Ire (Ghana) and Iddrisu M. Tanko (United Kingdom) while in 2013 international collaboration was observed in only one article by Stephano Gilamas and Peggy Polonis (both from Greece) and Abour Cherif (America). This is an indication that international collaboration is possible and should be encouraged amongst contributors since JHEM is a multidisciplinary and multicultural field of learning.

Table 2: productivity of authors publishing in the journal of higher educational management

No. of Authors	2007	2009	2010	2012	2013	2014	2015	2016	Total no. articles	%
One	6	2	5	4	7	9	6	6	45	54.22
Two	1	2	3	3	3	-	4	4	20	24.10
Three	-	1	-	1	2	-	3	3	10	12.05
Four	-	-	-	1	1	-	2	-	4	4.82
Five	-	1	-	1	-	-	1	1	4	4.82
Total	7	6	8	10	13	9	16	14	83	100

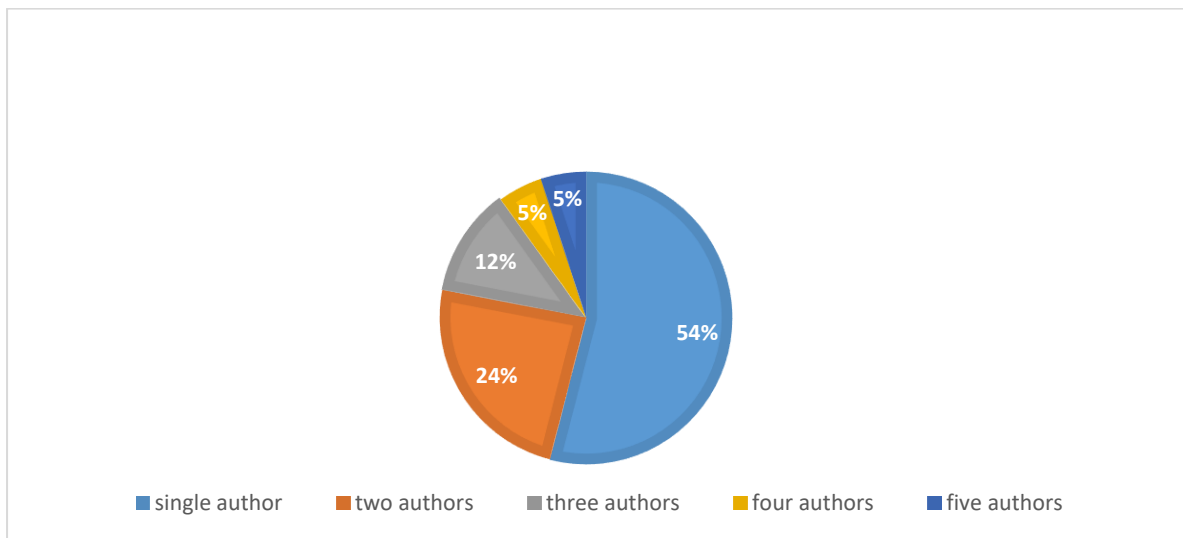


Figure 1: authorship productivity

Distribution of papers according to pages

Table 3 below illustrates the distribution of papers according to their page ranges in JHEM. It can be observed that the articles having 11-15 page range have the largest number of papers with 26 papers or (31.33%), followed by 21 papers (25.30%), 6 – 10 page range, 17 papers or (20.48%) fell within 16 -20 page range papers, 10 papers or (12.05%).

Table 3: Distribution of papers according to pages

Page range	Contributions in years								Total papers	% of total papers
	2007	2009	2010	2012	2013	2014	2015	2016		
1 – 5	4	1	2	1	2	-	-	-	10	12.05
6- 10	3	1	2	3	2	7	3	-	21	25.30
11 -15	-	2	1	2	5	2	7	7	26	31.33
16 -20	-	1	1	3	3	-	5	4	17	20.48
21-25	-	1	-	-	1	-	1	3	6	7.23
26 – 30	-	-	1	-	-	-	-	-	1	1.20
31 -35	-	-	1	-	-	-	-	-	1	1.20
36 – 40	-	-	-	-	-	-	-	-	-	-
41 -45	-	-	-	1	-	-	-	-	1	1.20
Total	7	6	8	10	13	9	16	14	83	100

Degree of authors' collaboration

Table 4 illustrates authors' collaboration, it was found that the degree of collaboration ranged from 0.14 - 0.67, indicating that collaborative research in JHEM is low. Also notably, 2014 showed zero collaboration. (Chaurasia, 2008) had somewhat similar results that show that degree of collaboration in Annals of Library and Information Studies was at a range of 0.60 – 0.76.

Table 4: Degree of authors' collaboration in JHEM

Years	One	Two	Three	Four	Five	Degree of collaboration
2007	6	1	-	-	-	0.14
2009	2	2	1	-	1	0.67
2010	5	3	-	-	-	0.38
2012	4	3	1	1	1	0.60
2013	7	3	2	1	-	0.46
2014	9	-	-	-	-	0.00
2015	6	4	3	2	1	0.63

2016	6	4	3	-	1	0.57
Total	45	20	10	4	4	3.45

Core authors

There was a total of 132 authors that contributed during the eight year period of study in JHEM. Three of the most productive authors appear to be members of the editorial board of JHEM namely, Dan L. King (Editor-in-chief), David Overbye and Abour Cherif. From table 5 below, it can be observed that Abour Cherif is the author with the highest number of articles. He authored and co-authored 5 articles for the years 2009 (twice), 2013, 2015 and 2016. This also shows that he contributed in four issues of JHEM within the eight year period. He is the associate Dean of Maths and Science Curriculum, and a Professor of Biology and Science Education. He has for the past 13years been affiliated with Devry University and is a member of administration at the home office. He has served as Director of Faculty Development, Director of Science and Mathematics programmes, and National Associate Dean, Programme Development in Science. Before his arrival at Devry University Home Office, he had served as Director of Science Method Courses in the MAT Programme of teaching science at Columbia College, Chicago. He has served as the President of the American Association of University Administrators (Online). It may be seen that Abour Cherif being an academician, has been engaged in administrative duties and is fully engaged in the JHEM. This may be the reason for his high contribution in JHEM. Also, it may be observed that probably the most productive authors are academicians who have worked as administrative professionals and may have served as editorial members in JHEM from American Institutions. These characteristics are similarly found in other journal studies. According to (Young, 2006), more than 50% of the top thirty Library Quarterly contributors have served as editorial board members and a large amount of these contributors were seen as either University of Chicago (which publishes Library Quarterly) doctoral graduates or faculty or both. Likewise studies on Malaysian Journal of Library and Information Science by (Tiew, Abrizah, & Kaur, 2002)) and (Aryanti & Willet, 2008) indicated also that editorial members tend to be the core contributors to the journals they are involved in.

Table 5: Core authors in JHEM

Group	Core Authors	Number of Articles
1.	Cohort: 1	5
	Abour Cherif	
2.	Cohort: 2	3
	David Overbye	
	C. Kelvin Synnott	
3	Cohort: 7	2
	Dan L. King	
	Stefanos Gialamas	
	Peggy Pelonis	
	Maris Roze	
	R. C. Chia	
	Elmer Poe	
	Shelley B. Wepner	
	Matthew B. Fuller	
4	Cohort: 121	1

Institution-wise contributors of articles

Authors who published in JHEM were linked to universities, colleges and other institutions such as community schools, private bodies, and educational enterprises. From table 6 and figure 2 below, it may be observed that majority of the lead authors that published articles in JHEM were affiliated to institutions of higher learning. The highest number of papers totalling 61 or 73.49% of the papers were gotten from universities, 10 or 12.05% of the papers were those from colleges, while those with no institutional information were 9 or 10.84% of the papers. The remaining three (3) or 3.62% of the papers came from contributors in community schools, private bodies, educational enterprises and national institutes. In 2014 nine (9) papers out of 83 papers had no institutional affiliations. This may have been an oversight and probably may have needed proper vetting before such papers were published. The term ‘others’ refer to community schools, private bodies and educational institutions of lead authors. A high

contributions of University affiliated authors was also indicated by (Biswas, *et al*, 2007), (Narang, 2004) and (Willet, 2007).

Table 6: Institution-wise contribution of Articles

<i>Name of Institution</i>	<i>Number of Articles</i>	<i>Percentage</i>
<i>Universities</i>	<i>61</i>	<i>73.50</i>
<i>Colleges</i>	<i>10</i>	<i>12.04</i>
<i>No institution information</i>	<i>9</i>	<i>10.84</i>
<i>Others</i>	<i>3</i>	<i>3.62</i>
<i>Total</i>	<i>83</i>	<i>100</i>

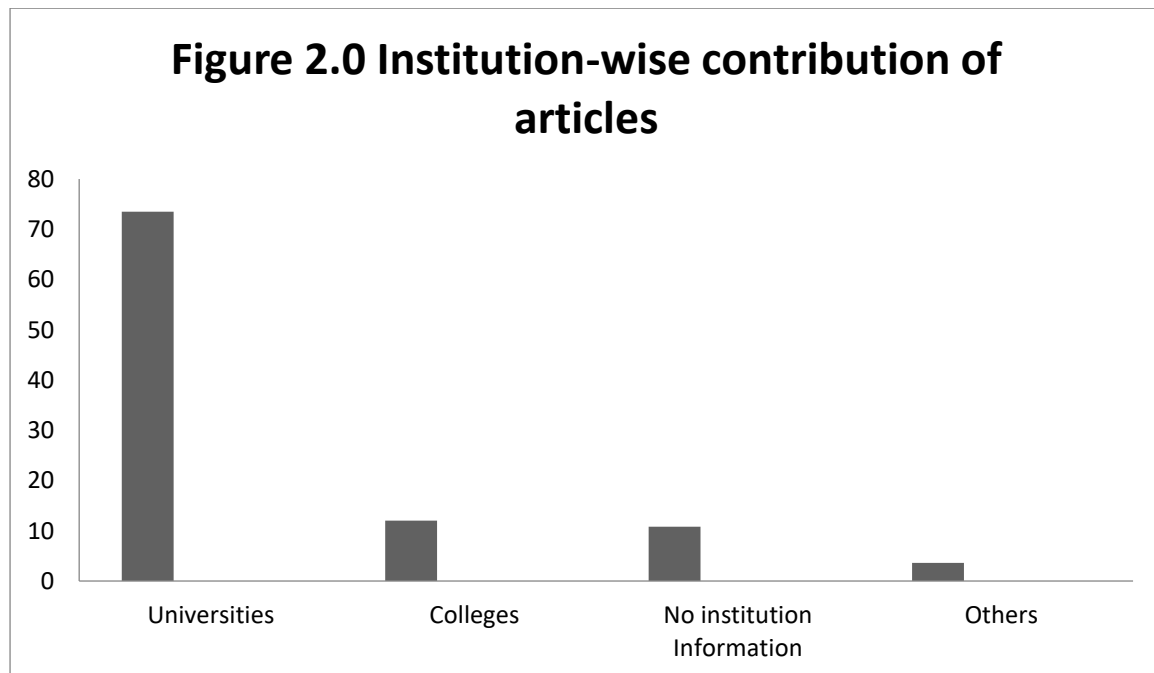


Figure 2: Institution-wise contribution of articles

Country of Affiliation of Authors

Table 7 reveals the country-wise affiliation of authors. It reveals that papers emanated from nine (7) countries (America, Nigeria, India, Canada, Greece, Ghana and Uganda). This decision was based on affiliations and addresses of the first authors. 83 authors were first authors per article. From the analysis, it was observed that American authors had the highest number of publications with 67 or about (90.54%) papers, followed by Nigeria with 2 or about (2.70%)

of the papers, while submissions from India, Uganda, Canada, Greece and Ghana were 1 or about (1.35%) each of the papers. From table 7 it can be observed that 2014 had no country of affiliation recorded for the articles. The highest number of contributions were from American which is the journals' of origin. This may imply that JHEM is not widely indexed in known databases for foreign contributors to be aware of and contribute. This is necessary because when journals are indexed in known databases, they become more visible to a wider audience which is likely to make journals more international thereby increasing the number of articles published from outside the journal's country of origin (Hjorland, 2011) .

Table 7: Country of Affiliation of Authors

S/ N	Country	2007	2009	2010	2012	2013	2015	2016	Total	%	Ran k
1	America	7	5	8	7	10	16	14	67	90.54	1
2	Nigeria	-	1	-	-	1	-	-	2	2.70	2
3	India	-	-	-	1	-	-	-	1	1.35	3
4	Canada	-	-	-	-	1	-	-	1	1.35	3
5	Greece	-	-	-	-	1	-	-	1	1.35	3
6	Ghana	-	-	-	1	-	-	-	1	1.35	3
7	Uganda	-	-	-	1	-	-	-	1	1.35	
	Total	7	6	8	10	13	16	14	83	100	

Types of Resources Cited in Articles

JHEM includes 13 article types or formats are depicted in tables 8 below. The table reveals that majority of contributors preferred to use journals as the source of information which occupied the top position with the maximum number of citations 860 (47.23%) followed by books 577 (31.69%), e-resources 225 (12.36%) citations, meetings/conference papers 50 (2.75%) citations, research papers 30 (1.66%) citations, Newspapers/ magazines 23 (1.26%) citations, thesis/dissertations 20 (1.10%) citations, case studies 15 (0.82%) citations, reports 11 (0.60%) citations, acts 5 (0.27%) citations, World Bank publication 3 (0.17%) citations, encyclopaedia 1 (0.10%) citations and UNESCO publications 1 (1.10) citations. Therefore, it is obvious that contributors in JHEM consider journals as the major source of information which they use to cite their research findings.

Table 8: Citation analysis (type of resourced cited in JHEM over the 8 year period)

S/N	Format / Source	Total	Percentage
1	Journals	860	47.23
2	Books	577	31.69
3	E-Resources	225	12.36
4	Meetings and conference papers	50	2.75
5	Research papers	30	1.65
6	Newspapers/ Magazines	23	1.26
7	Thesis/dissertation	20	1.10
8	Case studies	15	0.82
9	Reports	11	0.60
10	Acts	5	0.27
11	World Bank Publications	3	0.17
12	Encyclopaedia/ Dictionary	1	0.10
13	UNESCO Publications	1	0.10
	Total	1,821	100

Timeliness of sources cited

Table 9 below reveals the age of sources cited by researchers in JHEM within the 8year period. It can be seen from the table that sources cited increased as the year range progressed. Nine ranges were derived for a period of 81 years from 1935 to 2016 for the sources cited. It can be seen that the year range from 2006 to 2015 with 816 (44.96%) citations had the most cited age of sources. Timeliness of sources cited gives an indication of the currency and relevance of references in a discipline. This may imply that contributors in JHEM considered reference sources within 2006 to 2015 to be important in carrying out their research findings.

Table 9: Timeliness/age (years) of sources cited in JHEM over the 8 year period

Year range	No. of Sources cited for the years 20'								Total	Cumulative total	Percentage %	Cumulative %
	07	09	10	12	13	14	15	16				
1935-1945	-	-	-	1	1	-	-	1	3	3	0.17	0.17
1946 - 1955	-	-	-	1	-	-	2	3	6	9	0.33	0.50
1956-1965	-	-	-	2	2	-	6	3	13	22	0.72	1.22
1966-1975	-	-	3	12	5	3	12	15	50	72	2.75	3.97
1976-1985	-	3	10	20	11	2	16	33	95	167	5.23	9.20
1986-1995	9	9	24	39	30	15	81	39	246	413	13.55	22.70
1996-2005	33	37	67	53	88	58	145	104	585	998	32.23	54.93
2006-2015	8	18	38	59	169	108	253	163	816	1814	44.96	99.89
2016 & Above	-	-	-	-	-	-	-	1	1	1815	0.10	100

Note: Six articles had no dates. In 2016 (2 articles), 2014 (2 articles) and 2013 (2 articles)

Journal Ranking

Appendix 1 shows the spread of journal articles cited in JHEM over the eight year period. A total number of 508 journals have been cited for a cumulative number of 860 times. Appendix 1 shows that The Journal of Higher Education leads the table with 27 citations, followed by Journal of Applied Psychology with 24 citations, Chronicle of Higher Education (22 citations), Public Budgeting & Finance (14 citations), Journal of Higher Education Policy and

Management (14 citations), Research in Higher Education (13 citations), New Directions for Higher Education(13 citation).

Frequency of cited authors

Appendix II depicts the degree of authors cited in JHEM within the eight year period. From the table it may be observed that out of the 2453 author cited, Chia R. C. had the maximum number of citations with a total number of 48 citations, followed by Poe, E. with 29 citations and Moody, M. with 18 citations. Chia, R. C is the Assistant Vice Chancellor for Global Academic Initiative, East Carolina University. Her research interest is in cross-cultural psychology which is multidisciplinary. Unlike other authors cited, her research works involve cultures in and outside America. This may be the reason why she is the most cited author in JHEM as higher education management cuts across every discipline and culture (Bignold, *et al*, 2013).

Journal Self Citations

Table 10 below depicts the findings of the degree of journal self-citation in JHEM within the eight year period. From the table it is observed that JHEM was cited three (3) times in articles 4 and 5 of 2015 issue (85.71%) and once in article 1 of 2016 issue (14.29) making a total of seven (7) times within the eight issues of the eight year period, which is a percentage of 1.38% of the 508 journal titles. In accordance with (Omotayo, 2004), low journal self-citation (1.2%) points that contributors may have gotten their supporting literature from other sources and not from the journal itself. On the other hand, if a journal has a high self –citation score, it may depict a relative acceptance of the journal as a source for authors to use to support their publications as well as enhancing the journal as a trusted medium for boosting scholarly fame thereby gaining professional recognition for one’s research from trusted source (Hyland, 2003). The result shows that the journal self-citation of JHEM is low at 1.38% bearing in mind that the journal has been published for eight years now. This may show that authors of articles in JHEM may not view JHEM useful enough to support their research needs. This may be that JHEM having only one journal issue per year may not have enough resources to support the needs of authors.

Table 10: Journal self -citations

Years	Article numbers																Total no. of articles	%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
2015	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	6	85.71
2016	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	14.29
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	100

Conclusion and Recommendations

The eleven bibliometric indicators carried out creates a picture of JHEM providing insights that describe the characteristics, output and impact of the journal in detail. The journal published 83 articles during the period of study and 2015 is seen to have the maximum number of articles while 2009 had the least. It was shown that the number of articles varied on a yearly basis and the average page per year for the eight year period was within the range of 6 to 15 pages. The study further revealed that the highest numbers of contributors are single authors with just over half (54%) being single authors and contributions drawn from American institutions were the highest. The degree of collaboration indicated a low level of collaboration.

Furthermore, *Abour Cherif* was found to be the most prolific contributor and majority of the lead contributors were affiliated to institutions of higher learning with highest drawn from Universities. This is not surprising since the journal is an academic journal targeted at university administrators. It was observed that JHEM was cited only 7 times within the 8 year period of study indicating low journal self-citation. In addition, the study revealed that *The Journal of Higher Education* was the most cited followed by *Journal of Applied Psychology* and *The Chronicle of Higher Education*.

Therefore, the study suggests that increased authorship collaboration can be enhanced by refocusing the journal's scope to be multidisciplinary in nature. Also international collaborations should be encouraged and publications outside universities should be encouraged. JHEM publishers should explore indexing services in known databases in order to increase their international or global visibility and impact. JHEM publishers should consider including gender of contributors in order to assess gender-wise distribution of articles in the

journal. Finally. JHEM publishers should consider increasing the frequency of issues in order to enable more publications and low journal self-citation might have been as a result of the quality of papers submitted. Therefore, the journal review process may need to be appraised to encourage future self-citations.

References

- Aryanti, B., & Willet, p. (2008). Malaysian Journal of Library and Information Science 2001 - 2006: A Bibliometric Study. *Malaysian Jpuyrnal of Library and Information Science*, 13(1), 103 - 116.
- Awasthi, S. (2015, September). Library Trends Journal: A Bibliometric Study. *International Journal of Scientific and Research Publications*, 5(9). Retrieved from www.ijsrp.org
- Bignold, W., Bamber, P., Guilherme, A., Rao, N., Su, F., & Yuan, T. (2013). *Teaching the Disciplines in Education Studies*. York, United Kingdom: Higher Education Academy.
- Biswas, B. C., Roy, A., & Sen, B. K. (2007). Economic Botany: A Bibliometric Study. *Malaysian Journal of Library and Information Science*, 12(1), 23 - 33.
- Chaurasia, K. K. (2008). Bibliometric Analysis of Annals of Library and Information Science (2002 - 2006). *Proceedings in MANLIMBNET 9th Anual National Convention*. New Delhi. Retrieved from <http://hdl.handle.net/10760/11756>
- Connaway, L. S., & Powel, R. R. (2010). *Basic Research Methods for Librarians, 5th Edition*. Santa Barbara, California, America: Libraries Unlimited.
- Cronin, B., & Sugimoto, C. R. (2014). *Beyond Bibliometrics: harnessing multidimensional indicators of scholarly impact*. Massachusetts, USA: MIT Press.
- Dauphinee, L., Peipert, J. F., Phipps, M., & Weitzen, S. (2005). Research Methodology and Analytic Techiques in the Journal of Obstetrics and Gynaecology. *Obstetrics and Gynaecology*, 106(4), 808 - 812.
- Dechiel, D. (2016, March 1). *Dynamic Research Support for Academic Libraries*. Scitus Academics Llc .
- Giske, J. (2008, January 4). Benefiting from Bibliometry. *Ethics in Science and Environmental Politics*, 8(1), 79 - 81. doi:10.3354/esep00075
- Hjorland, B. (2011, January). The Imortance of Knowledge : Indexing and Information Retrirval as an Example. *Journal of the American Society for Information Science and Technology*, 62(1), 72 - 77. doi:DOI:10.1002/asi

- Holden, G., Rosenberg, G., & Barker, K. (2006). *Bibliometrics in Social Work (Haworth social care in health care)*. Oxford, New York: Routledge.
- Hyland, K. (2003). Self-citation and Self-reference: Credibility and Promotion in Academic Publication. *Journal of American Society for Information Science*, 54(3), 251 - 259.
- Jena, L. K., Swain, D. K., & Sahoo, K. C. (2012). Annals of Library and Information Studies, 2002 - 2010: A Bibliometric Study. *Library Philosophy and Practice*. Retrieved from <http://unllib.unl.edu/LPP/>
- Jimoh, I. F., Eshiemokhai, E., & Hambali, Z. S. (2014). Bibliometric Analysis of Internal Journal of Research in Education 2004 - 2012. *Information and Knowledge Management*, 4(12), 42 - 48.
- Khaparde, V. S. (2011). E- Journal of Library and Information Science: A Bibliometric Study. *Internal Journal of Humanities and Social Science*, 1(11), 99 - 106.
- Lijina, P. (2018, January - March). Bibliometric Study of International Journal of Library and Information Science. 8(1), 189 - 196.
- Narang, A. (2004). Indian Journal of Pure and Applied Mathematics: A bibliometric Study. *Annals of Library and Information Studies*, 51(1), 28 - 38.
- Omotayo, B. O. (2004). A Content Analysis of Ife Psychologia, 1993 - 2002. *The International Information and Library Review*, 36, 95 - 103.
- Raja, T., & Murugan, K. (2015, July - September). Bibliometric Study of Research and Reflections on Education. *Journal of Advances in Library and Information Science*, 4(3), 228 - 232.
- Reed, M. (2015). *The Research Impact Handbook*. Aberdeenshire: Fast Track Impact Ltd.
- Roemer, R. C., & Borchardt, R. (2015). *Meaningful metrics: a 21st century Librarian's guide to bibliometrics, altmetrics and research impact*. Chicago. Illinois: ACRL.
- Singh, G., Mittal, R., & Ahmad, M. (2007). A Bibliometric Study of Literature on Digital Libraries. *The Electronic Library*, 25(3), 342 - 348.
- Subramanyam, K. (1983). Bibliometric Studies of Research Collaboration: A Review. *Journal of Information Science*, 6(1), 33 - 38.
- Swain, D. K., Swain, C., & Rautaray, B. (2014, April - June). Bibliometric Analysis of the Journal Business Economics from 2008 - 2013. *International Journal of Digital Library Services*, 4(2), 93 - 108. Retrieved from www.ijodls.in
- Tella, A., & Olabooye, A. (2014). Bibliometric Analysis of African Journal of Library, Archives and Information Science from 2000 - 2012. *Library Review*, 63(4/5), 305 - 323. Retrieved from <http://doi.org/10.1108/LR-07-2013-0094>

Tiew, W. S., Abrizah, A., & Kaur, k. (2002). Malaysian Journal of Library and Information Science 1996 - 2000: A Bibliometric Study. *Malaysian Journal of Library and Information Science*, 6(2), 43 - 56.

Todeschini, R., & Baccini, A. (2016). *Handbook of Bibliometric Indicators: Quantitative tools for studying and evaluating research*. Weinheim, Germany: Wiley VCH.

Willet, P. (2007). A Bibliometric Analysis of the Journal of Molecular Graphics and Modelling. *Journal of Molecular Graphics and Modelling*, 26, 602 - 606.

Young, A. P. (2006). Library Quarterly, 1956 - 2004: An Exploratory Bibliometric Analysis. *Library Quarterly*, 76(1), 10 - 18.

Appendix I: Rank list of frequently cited journals in JHEM within the 8 year period

S/N	Rank	Journal Titles	No. of citations	cumulative citation	% of citations
1	1	The Journal of Higher Education	27	27	3.14
2	2	Journal of Applied Psychology	24	51	2.79
3	3	The Chronicle of Higher Education	22	73	2.56
4	4	Public Budgeting & Finance	14	87	1.63
5	4	Journal of Higher education policy and Management	14	101	1.63
6	5	Research in Higher Education	13	114	1.51
7	5	New Directions for Higher Education	13	127	1.51
8	6	Academy of Management Journal	11	138	1.28
9	7	Journal of Teacher Education	10	148	1.16
10	8	Research in Higher Education	9	157	1.05
11	8	Journal of Teacher Education	9	166	1.05
12	8	Higher Education	9	175	1.05
13	8	New Directions For Student Services,	9	184	1.05
14	8	Research Management Review	9	193	1.05
15	10	The Review of Higher Education	7	200	0.81
16	10	Journal of Personality and Social Psychology	7	207	0.81
17	10	The Journal of Higher Education Management	7	214	0.81

18	10	Planning for Higher Education	7	221	0.81
19	11	Personnel Psychology	6	227	0.70
20	11	Harvard Business Review	6	233	0.70
21	11	Change: The Magazine of Higher Learning	6	239	0.70
22	11	Administrative Science Quarterly	6	245	0.70
23	12	Studies in Second Language Acquisition	5	250	0.58
24	12	NACADA Journal	5	255	0.58
25	12	Public Finance Review	5	260	0.58
26	12	SRA Journal	5	265	0.58
27	12	Psychological Reports	5	270	0.58
28	13	Journal of Sport Management	4	274	0.47
29	13	Teachers College Record	4	278	0.47
30	13	College Student Journal	4	282	0.47
31	13	New Directions for Institutional Research	4	286	0.47
32	13	The Mentor: An Academic Advising Journal.	4	290	0.47
33	13	The Journal of Higher Education	4	294	0.47
34	13	Journal of the Society of Research Administrators	4	298	0.47
35	14	Journal of Managerial Psychology	3	301	0.35
36	14	Journal of Management Information Systems.	3	304	0.35
37	14	Journal of Educational Research	3	307	0.35
38	14	Florida Journal Of Educational Administration & Policy	3	310	0.35
39	14	Addiction	3	313	0.35
40	14	The Elementary school journal	3	316	0.35
41	14	Journal Of Educational Research & Policy Studies	3	319	0.35
42	14	Innovative Higher Education	3	322	0.35
43	14	Academy of Management Review	3	325	0.35
44	14	Psychological bulletin	3	328	0.35
45	14	Journal of Management	3	331	0.35
46	15	Higher Education in Review	2	333	0.23
47	15	Educause Review	2	335	0.23
48	15	Transformative Dialogues: Teaching & Learning Journal	2	337	0.23

49	15	International Journal of Educational Management	2	339	0.23
50	15	Journal of Occupational and Organizational Psychology	2	341	0.23
51	15	International Higher Education	2	343	0.23
52	15	The Journal of Economic Perspectives	2	345	0.23
53	15	Forum On Public Policy Online	2	347	0.23
54	15	Journal Of Negro Education	2	349	0.23
55	15	International Journal of Doctoral Studies	2	351	0.23
56	15	Studies in Higher Education	2	353	0.23
57	15	Community College Journal of Research and Practice	2	355	0.23
58	15	Urban Rev	2	357	0.23
59	15	Addictive behaviours	2	359	0.23
60	15	Journal of Studies on Alcohol and Drugs	2	361	0.23
61	15	Educational Administration Quarterly	2	363	0.23
62	15	The Phi Delta Kappan	2	365	0.23
63	15	Kappa Delta Pi Record	2	367	0.23
64	15	Public Administration Review	2	369	0.23
65	15	The Leadership Quarterly.	2	370	0.23
66	15	Serials Review	2	372	0.23
67	15	Journal of Comparative Policy Analysis: Research and Practice	2	374	0.23
68	15	College Teaching	2	376	0.23
69	15	Journal of Education for Business	2	378	0.23
70	15	Journal of Appreciative Education	2	380	0.23
71	15	Journal of Appreciative Education	2	382	0.23
72	15	ASHE-ERIC higher education report	2	384	0.23
73	15	AFT On Campus	2	386	0.23
74	15	Journal of Leadership & Organizational Studies	2	388	0.23
75	15	Non-profit Management and Leadership	2	390	0.23
76	15	American Journal of Education	2	392	0.23
77	15	Journal of Management	2	394	0.23
78	15	Human Performance	2	396	0.23
79	15	Journal of Business & Psychology	2	398	0.23

80	15	International Journal of Selection and Assessment	2	400	0.23
81	15	Human Performance	2	402	0.23
82	15	Journal of Organizational Behaviour Management	2	404	0.23
83	15	Peer Review	2	406	0.23
84	15	Academe	2	408	0.23
85	15	Medical Teacher	2	410	0.23
86	15	Planning and Changing	2	412	0.23
87	15	PLoS ONE	2	414	0.23
88	16	Others (446 titles)	1	446	0.17 each (51.86)
		Total		860	100

Appendix II: Rank list of frequently cited authors in JHEM with the 8 year period of cited authors

S/N	Names of cited authors	Number of citations of authors	Rank
1	Chia, R.C.	48	1
2	Poe, E.	29	2
3	Moody, M.	18	3
4	Dunn, R.	10	4
5	Cherif, A.	10	4
6	Gialamas,S.	10	4
7	Birnbaum, R.	8	5
8	Mahony, D.	7	6
9	Perkins, H. W.	7	6
10	Greenberg, J.	6	7
11	Berk, R. A.	6	7
12	Goleman, D.	6	7
13	Padsakoff, P.M.	5	8
14	Eckel, P.	5	8
15	Engs, R. C.	5	8
16	Griggs, S. A.	4	9

17	Smylie, M. A.	4	9
18	Bloom, J. L.	4	9
19	Adams J. S.	4	9
20	Colquitt, J. A.	4	9
21	Young,S.	4	9
22	Schein, E.H.	4	9
23	Neighbors, C.	4	9
24	Dills, D. D	4	9
25	Adams, G.	4	9
26	Dunning, J.	4	9
27	Authors cited three times =30	3	10
28	Authors cited twice = 115	2	11
29	Author cited once = 2282	1	12
	Total = 2453		