

Analyses on the 'Re-Engineering' Methodological Approaches to Scopes Database during 2011-2017

Dr.Vilas A. Kale

Librarian, Swatantrya Sainik Suryabhanji Pawar College, Purna (Jn.) Dist.Parbhani, Maharashtra, India

ABSTRACT

Scopus is a premier research platform, helping to find, analyze, and share information in the sciences, social sciences, arts, and humanities. The present paper discusses the term 'Re-Engineering' as reflected in SCOPUS for the period during 2011 to 2017. The Present study aims to find out the top contributing institutions, most prolific authors, the preferred sources for publications by Geographical distribution by country, Subject area, Source Type, Affiliation, and Language etc. The results indicate that there are 19686 publications on Re-Engineering during 2011 to 2017.

Keywords : Re-Engineering, Scopes, Bibliometric

I. INTRODUCTION

In 1970s the American auto industry faced with an attack from the Japanese automakers which shook their foundations. The Japanese were able to make high-quality cars at prices much cheaper than the American giants like Ford and Chrysler. Suddenly Ford and Chrysler realized there was something Japanese giants like Toyota and Nissan were doing different which was making them so very competitive. This danger of being displaced as the market leader from their very own home turf led to a severe introspection which resulted in many management paradigms like Six Sigma, TQM, and PIP Which were based on incremental changes in the organization, and could improve the business processes. In 1990s they knew that those methods could improve the business to some certain levels and something new and more fundamental is needed for taking business to next level, In such times Prof. Michael Hammer wrote his important article Hammer claimed that "...the major challenge for managers is to obliterate non-value adding work,

rather than using technology for automating it" Similar views were expressed by Thomas H. Davenport and J. Short in Main idea was defined formally by Hammer and Champy in 1993 as "...the fundamental reconsideration and radical redesign of the organizational process, in order to achieve drastic improvement of current performance in cost, service and speed"

II. Scopus

Scopus launched in November 2004. It is the largest abstract and citation database of peer-reviewed literature, featuring smart tools to track, analyze and visualize research. With over 21,500 titles from more than 5,000 international publishers, Scopus delivers the most comprehensive overview of the world's research output in the fields of science, technology, medicine, social science and arts and humanities.

III. Objectives of Study

- 3.1 To Study the Document types and number of documents in which 'Re-Engineering' have been used.
- 3.2 To find out highly productive authors on Re-Engineering.
- 3.3 To classify Document Type by country on Re-Engineering.
- 3.4 To identify documents on Re-Engineering by year of publications.
- 3.5 To provide information writing for Research areas.

IV. Scope & Limitation of Study

Document types and number of documents in which Re-Engineering have been used hence, the present Study is limited to search results on the title of Re-Engineering in SCOPUS database during 2007 to 2018. The result indicates that there were total 6528 documents on 'Re-Engineering' in Scopus during the period.

V. Methods and Materials

The growth of publications on the 'Re-Engineering' was derived from the SCOPUS published by Elsevier. During the period 2011–2017, a total of 19686 records were found by the Title ('Re-Engineering') And (Limit-To (Pubyear , 2017) or Limit-To (Pubyear,2016) or Limit-To (Pubyear, 2015) or Limit-To (Pubyear, 2014) or Limit-To (Pubyear , 2013) or Limit-To (Pubyear , 2012) or Limit-To (Pubyear , 2011) Necessary data was tabulated into separate sheets in terms of authorship pattern, geographical distribution of contributors, ranking list of Sources and collaborative measures, etc.

VI. Review of Related Literature

Deshmukh Rahul K., Taksande Pratibha G.,(2018), College Librarians Productivity in Bradford's Law:

An Analysis, Deshmukh R.k & Taksande P.G (2018) in article " Intellectual Productivity Of College Librarians,1342 over all research productivity college librarian, Solanke, D. S., Deshmukh Rahul K.,(2018), Analyses on the "Six Sigma" Methodological Approaches Tram in Web of Science database during 2007- 2018, Deshmukh, Rahul K., Ghumre, Shivshankar , Bibliometrics Analysis on the Six Sigma Methodological Approaches to Scopus Database During 2007-2015.Term "six sigma" comes from statistics and is used in statistical quality control, The result indicates that there were total 4027 (3 March 2018) documents on "Six Sigma" in Scopus during the period. Deshmukh Rahul K., Taksande Pratibha G.,(2015) Impact of Correlation on Research Productivity, It has 86 college librarian's contributions related to the Karl Pearson's correlation has been shown to have correlation created through MATRIX, in which total productivity, Deshmukh R.k & Taksande P.G (2017) "An Analytical Study of College Librarians' in Contribution of Publication & Extra- Curricular Activities in College Affiliated by Dr. B.A.M.U, Aurganbad." Ph.D Theses submitted by RSTMUN, Nagpur. Khiste G.P., Deshmukh R.K. & Kale V.A. (2017) discusses the "Bibliometric" as reflected in J-Gate for the period from 2005 to 2016. This study investigates the highly productive authors, Document Type, Geographical distribution by country, etc.

VII. Chronological Analysis

Year wise productivity means the publication by Author counted chronologically to see the most productive year. The collected data is presented in the figure No. 1

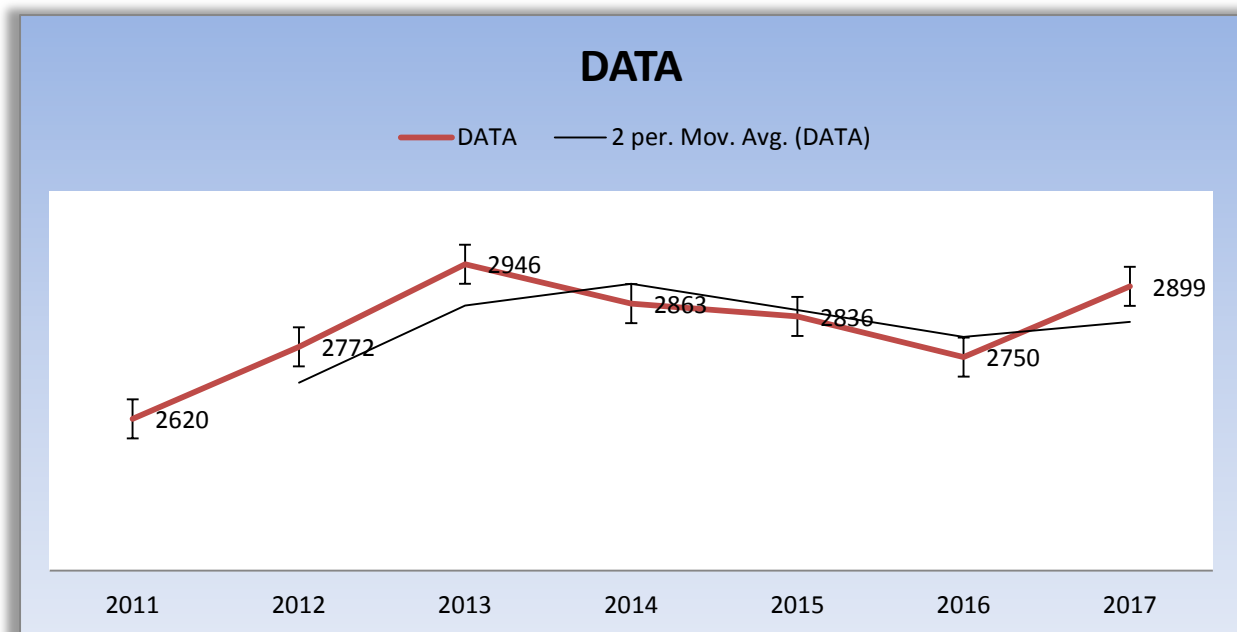


Figure 1. Year wise Distributions of the Publications

The reveals that, the most productive year was 2011, total number of publications in the year was 2013 followed by (2946), 2013 (2899) and in 2014 (2863). As regards the year wise productivity, the lowest number was produced 2620 publications in the year 2011. The highest productivity of the publications on

Re-Engineering was in the year 2018 listed in the SCOPUS.

VIII. Subject wise Analysis

The author has analyzed the compiled data with 27 different types of subjects and it is presented in the Table no. 01

Table 1. Subject wise analysis of the publications

Sr. No	SUBJECT AREA	Data	% 19686
1	Computer Science	10016	50.87
2	Engineering	3917	19.68
3	Business, Management and Accounting	3564	18.10
4	Medicine	2077	10.55
5	Social Sciences	1995	10.13
6	Mathematics	1806	9.17
7	Biochemistry, Genetics and Molecular Biology	1690	8.58
8	Decision Sciences	1639	8.32
9	Economics, Econometrics and Finance	896	4.55
10	Materials Science	537	2.72
11	Chemical Engineering	503	2.55
12	Chemistry	437	2.21
13	Pharmacology, Toxicology and Pharmaceutics	429	2.17

14	Environmental Science	369	1.87
15	Immunology and Microbiology	364	1.84
16	Physics and Astronomy	340	1.72
17	Arts and Humanities	314	1.59
18	Agricultural and Biological Sciences	309	1.56
19	Energy	265	1.34
20	Psychology	203	1.03
21	Nursing	187	0.94
22	Multidisciplinary	177	0.89
23	Earth and Planetary Sciences	168	0.85
24	Neuroscience	145	0.73
25	Health Professions	129	065
26	Dentistry	22	0.001
27	Veterinary	22	0.001

The details of the subject wise analysis of the publications are shown in the Table No.1. The term Re-Engineering coined the highest number of articles used in the subject, Computer Science 10016 (50.87%) followed by Engineering 3917 (19.68%), Business, Management and Accounting 3564 (18.10%), Medicine 2077 (10.55%), Social Sciences 1995 (10.13%). The lowest number was used in the subject Veterinary Science & Dentistry 22 (0.001%), the contribution of the Social Sciences was only 1995 (10.13%).

IX. Ranking of contributors of Authors

The authors calculated and ranked authorship of publications and the analysis is as presented in the table No.2

Table 2. Top five Authors

AUTHOR NAME	Data	Rank
Lo, D.	106	1
Hassan, A.E.	59	2
Valente, M.T.	59	2
Oliveto, R.	57	3
Roy, C.K.	57	3
Bavota, G.	56	4
De Lucia, A.	55	5

It above table No. 2 of authorship ranking shows that, top five authors are Lo,D 106 publications, Hassan, A.E., & Valente, M.T. published 59. Oliveto, R & Roy, C.k published 57 and Bavote Published 56 articles.

X. Geographical distribution of contributors of articles

Geographical distribution of authorship is important because it identifies the publication contribution of the particular country. Therefore authors distributed authorship of publications and it is presented in the table No. 3 and figure No. 3

Table 3. Geographical Distribution of contributors of articles

COUNTRY/TERRITORY	Data	% of 19686	Rank
United States	4433	22.51	1
Germany	1789	9.08	2
China	1772	9.00	3
United Kingdom	1468	7.45	4
Canada	1204	6.11	5
Italy	1008	5.12	6
India	935	4.74	7
Brazil	811	4.11	8
France	732	3.71	9

Australia	696	3.53	10
Undefined	282	1.43	

From the table No. 3 it is found that there are total 19686 articles published in the study period. From the analysis it has been observed that the highest numbers of contributors are from United States having 4433 articles and the percentage is (22.51%) followed by Germany on second rank and China was on third rank, & India's seventh rank whereas Undefined number was 282 article.

XI. Total Publication SOURCE

Publication Source means a form in which the articles, News paper and books are published. Publication outlet by Authors to publish the total 19686 publications which is presented in Table No. 4

Table No. 4

SOURCE TITLE	DATA
Lecture Notes In Computer Science Including Subseries Lecture Notes In Artificial Intelligence And Lecture Notes In Bioinformatics	589
ACM International Conference Proceeding Series	326
Proceedings Of The European Conference On Software Maintenance And Reengineering CSMR	251
Lecture Notes In Business Information Processing	248
Ceur Workshop Proceedings	236
Communications In Computer And Information Science	152
Journal Of Systems And Software	150
Proceedings International Conference On Software Engineering	132
Information And Software Technology	130
Business Process Management Journal	122

Table No. 4 Revels that the out of total publications, the highest percentage i. e. 589 of publications Source was Lecture Notes In Computer Science Including Subseries Lecture Notes In Artificial Intelligence And Lecture Notes In Bioinformatics; followed by 326 Publications as ACM International Conference Proceeding Series . While, 251 publications source was published as Proceedings of the European Conference on Software Maintenance and Reengineering CSMR.

XII. Affiliation Trends of Articles

Affiliation trends distribution of articles is shown in table No.5

Table 5. Top Five Affiliations

AFFILIATION	Data	No of
Delft University of Technology	162	1
Ecole Polytechnique de Montreal	131	2
Queen's University, Kingston	122	3
Singapore Management University	118	4
University Concordia	114	5

The details of the Affiliation wise analysis of the publications are shown in the Table No.5. The University Of Delft University Of Technology affiliated authors constituted the highest number of articles 162. Followed by The Ecole Polytechnique de Montreal constituted 131 numbers of articles.

XIII. Conclusion

During 2011 to 2017. The result indicates that there were total 19686 documents on "Re-Engineering" in Scopus during the period. The most productive year was 2013 as total productivity in this year was 2946 articles.

- The highest number of articles published in the subject Computer Science 10016 (50.87%)
- India's seventh rank whereas undefined number was 282 article.
- the out of total publications, the highest percentage i. e. 589 of publications Source was Lecture Notes In Computer Science Including Subseries Lecture Notes In Artificial Intelligence And Lecture Notes In Bioinformatics

XIV. An Epilogue

The data suggest that there was a significant research activity in the field of "Re-Engineering" during the study period. The contribution of documents on Re-Engineering indicates that healthy pattern of progress in this field.

XV. REFERENCES

1. Deshmukh Rahul K., Taksande Pratibha G.,(2015) A Study of college Librarian Contribution in his Publication. (Marathi Language Article), The Rubrics Journal of Interdisciplinary Studies, (3), 121-127
2. Deshmukh Rahul K., Taksande Pratibha G.,(2018) Impact of Correlation on Research Productivity, International Journal of Scientific Research in Computer Science, Engineering and Information Technology, 3-1, 1830-1835
3. Deshmukh Rahul K., Taksande Pratibha G.,(2015), Dr. B.A.M.U. Salgnit Mahavidhyalayin Granthpalanche Sahitya Nirmiti (Marathi), International Multilingual Research Journal Printing area, Issue-12, Vol01, Dec.2015
4. Deshmukh Rahul K., Taksande Pratibha G.,(2018), College Librarians Productivity in Bradford's Law: An Analysis, International Journal for Science and Advance Research in Technology (IJSART), 4(5),119-123
5. Deshmukh Rahul K., Taksande Pratibha G.,(2015), Mahavidhyalayin Granthpalncha samajik Darja (Marathi), Granthparivar, January 2015
6. Deshmukh Rahul K., Veer D.K, (2014), Mahavidhyalayin Granthpalanche Prakashnathil Yogdan(Marathi), Conference: Institute of English Language, Literature & Research, Jalgaon.
7. Deshmukh, Rahul K. & Kale, Vils A (2018), Analysis of "Democracy" Term in Jgate, Current Global Reviwer, 1-1,1-6.
8. Deshmukh,Rahul K., Ghumre, Shivshankar (2018) , Bibliometrics Analyses on the Six Sigma Methodological Approaches to Scopes Database During 2007-2015, International Journal for Science and Advance Research in Technology (IJSART), 4(3),119-123
9. Deshmukh R.k & Taksande P.G (2017) An Analytical Study of College Librarians in Contribution of Publication & Extra- Curricular Activities in Colleges Affiliated by Dr. B.A.M.U, Aurganbad. Ph.D Theses submitted by RTMNU, Nagpur.
10. Deshmukh R.k & Taksande P.G (2018) Intellectual Productivity Of College Librarians, International Journal for Science and Advance Research in Technology (IJSART),4(4), 1370-1375
11. Davenport, T.H.,(199), Process innovation: reengineering work through information technology. 1993: Harvard Business Press.
12. Hammer, M.,(1990), Reengineering work: don't automate, obliterate. Harvard business review, 1990. 68(4): p. 104-112.
13. Kale Vilas A., Deshmukh Rahul K. & Khiste Gajanan P. (2017) A Bibliometric Survey of the Literature Published by Web of Science on 'Consortia' From 1989-2016, New Man International Journal of Multidisciplinary Studies, 4(10), 75-82.
14. Khiste G.P., Deshmukh R.K. & Kale V.A. (2017) Mapping of Literature on Bibliometric by J-Gate Database, In Re-Envisaging Knowledge Resource Centers: Roles and Responsibilities, New Delhi: Ess Ess Pub, 391-402.
15. Mohapatra, S.(2012), Business Process Reengineering: Automation Decision Points in Process Reengineering. 2012: Springer
16. Solanke, D. S.,Deshmukh Rahul K.,(2018), Analyses on the "Six Sigma" Methodological Approaches Tram in Web of Science database during 2007- 2018, International Journal of Scientific Research in Computer Science, Engineering and Information Technology , 3-3,128-134
17. Veer D.K. & Khiste Gajanan, Deshmukh Rahul (2018) Publication Productivity of 'Information Literacy' in Scopus during 2007 to 2016, Asian Journal of Research in Social Sciences and Humanities,8(2),171-183.