

A Study on Order of Authorship to Discover the Degree of Authorship

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Abstract

Bibliographical details of research papers of faculty members and research scholars of University of Mysore covered in Web of Science were analyzed to identify the order of authorship and to discover the degree of authorship. Findings of the study reveal that the majority of the authors in overall publications belong to University of Mysore representing 55.81% and the remaining 44.19% of authors from different Universities and Institutions across the world who engaged to carry out the researches with University of Mysore. The degree of authorship or contribution of authors of University of Mysore in overall researches appeared to be high in two authored papers, i.e. 0.92 representing 92%.

Keywords: Citation analysis, authorship pattern and degree of authorship.

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INTRODUCTION

Being one of the India's premier institutions of higher learning Mysore University has produced an outstanding high quality researches in different faculties of knowledge at global level involving National and International collaborations. Therefore, researcher intended to know the degree of authorship of faculty members and research Scholars University of Mysore in collaborated researches

REVIEW OF LITERATURE

Authorship trend and collaborative researches are considered as an important facet of modern science [1] and the trend of multi authored papers is high in research publications leading to increase in the degree of collaboration [2–6]. Iqbalahmad U Rajgoli [7] identified multi-authored papers with 87.15% of contributions have dominated the field of research Journal of Spacecraft Technology has recorded highest degree of collaboration of 0.90. Whereas in the study conducted by Thavamani [8], percent of single authored papers and collaborated papers are 9.77 and 90.17 respectively. After reviewing the literature of studies on citation analysis researchers were prompted to undertake the present study as there are lack of studies on assessment of degree of authorship and more studies focused mainly on assessing degree of collaboration.

OBJECTIVES

The specific objectives of the study are to determine the:

1. Authorship pattern.
2. Order of authorship of UOM faculty members and research scholars
3. Number of UOM authors in collaborated researches.
4. Degree of authorship.

METHODOLOGY AND MATERIALS

In the present study, the quantitative method was adopted. The investigation was based on the analysis of bibliographical details of research papers of faculty members and research scholars of University of Mysore covered in Web of Science Citation Index during 2012-2016. 1246 research papers were taken as a source of material for the study. The bibliographical details were collected in a Microsoft Excel and the data was tabulated and analyzed for results.

SCOPE AND LIMITATIONS OF THE STUDY

The scope of the study was limited to the research papers of faculty and research scholars of University of Mysore covered in Web of Science during 2012-2016. The research publications including journal articles, conference papers and others forms of publications were considered for the study.

DATA ANALYSIS AND INTERPRETATIONS

The present study elucidates the order of authorship and degree of authorship of faculty members and research scholars in Table 1 and Table 2, respectively. Table 1 indicates the array of authorship of faculty members and research scholars of University of Mysore as presented in the 1246 research papers. It is evident from the Table 1 that the research fraternity of University of Mysore which includes faculty members and research scholars are more inclined towards the collaboration research trend having positioned at a rage of authorship. Majority of 821 authors representing 14.14% attained first authorship followed by 765 authors who obtained second authorship and 569 authors who got third authorship. And only small number of authors has appeared in the authorship range of 7 to 17.

DEGREE OF AUTHORSHIP

Authorship is generally conferred upon individuals who make significant intellectual contributions to a published study and who are responsible for the content of a study [9]. Though authorship is an important ethical facet of scientific research publication. Unfortunately, unethical and unjustified authorship practices have increased in recent years mainly due to the inadvertent pressure exerted by academia. The order of authorship in multi authored manuscripts should be based on the number and weightage of intellectual contributions made by each author [10]. The Universities/Institutes are ranked on the basis of publication productivity as one of the criteria, this will give all the engaged Universities/Institutes an equal benefits in collaborated publications. Therefore, researcher intended to identify the degree of authorship or extent of contribution of an individual university based on the below framed formula.

Table 1: Authorship Order of Faculty Members and Research Scholars of University of Mysore.

| Sl. No. | Authorship pattern | No of papers | No. of authors | No. of UOM Authors | Order of authorship of faculty and research scholars of University of Mysore in research papers | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|--------------|----------------|--------------------|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 22 |
| 1. | Single | 16 | 16 | 16 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 2. | Two | 226 | 452 | 416 | 201 | 215 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 3. | Three | 215 | 645 | 481 | 156 | 155 | 170 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 4. | Four | 216 | 864 | 557 | 148 | 128 | 136 | 145 | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 5. | Five | 191 | 955 | 519 | 108 | 95 | 88 | 106 | 122 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 6. | Six | 166 | 996 | 490 | 96 | 80 | 76 | 81 | 75 | 82 | - | - | - | - | - | - | - | - | - | - | - | |
| 7. | Seven | 93 | 651 | 316 | 48 | 40 | 50 | 40 | 37 | 54 | 47 | - | - | - | - | - | - | - | - | - | - | |
| 8. | Eight | 51 | 408 | 157 | 21 | 18 | 15 | 23 | 19 | 20 | 20 | 21 | - | - | - | - | - | - | - | - | - | |
| 9. | Nine | 21 | 189 | 105 | 12 | 14 | 10 | 13 | 11 | 11 | 8 | 12 | 14 | - | - | - | - | - | - | - | - | |
| 10. | Ten | 15 | 150 | 52 | 4 | 4 | 8 | 7 | 4 | 5 | 4 | 3 | 6 | 7 | - | - | - | - | - | - | - | |
| 11. | Eleven | 7 | 77 | 18 | 0 | 3 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 3 | - | - | - | - | - | - | |
| 12. | Twelve | 9 | 108 | 42 | 4 | 4 | 5 | 3 | 4 | 3 | 3 | 3 | 1 | 3 | 3 | 6 | - | - | - | - | - | |
| 13. | Thirteen | 8 | 104 | 21 | 2 | 4 | 2 | 0 | 0 | 1 | 2 | 1 | 2 | 0 | 2 | 0 | 5 | - | - | - | - | |
| 14. | Fourteen | 4 | 56 | 23 | 2 | 1 | 4 | 0 | 1 | 1 | 3 | 2 | 1 | 0 | 2 | 2 | 1 | 3 | - | - | - | |
| 15. | Fifteen | 2 | 30 | 8 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | - | - | |
| 16. | Sixteen | 3 | 48 | 12 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 2 | - | |
| 17. | seventeen | 2 | 34 | 6 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | |
| 18. | Twenty two | 1 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Total in numbers | | 1246 | 5805 | 3240 | 821 | 765 | 569 | 420 | 276 | 177 | 91 | 45 | 27 | 12 | 11 | 8 | 6 | 5 | 2 | 2 | 3 | |
| Total in percentage | | 100 | 100 | 55.81 | 14.14 | 13.17 | 9.80 | 7.23 | 4.75 | 3.04 | 1.56 | 0.77 | 0.46 | 0.20 | 0.18 | 0.02 | 0.10 | 0.08 | 0.03 | 0.03 | 0.05 | |

Table 2: Authorship Pattern and Degree of Authorship of Faculty and Research Scholars of University of Mysore.

| Sl. No. | Authorship pattern | No. of papers | Total No. of authors | No. of UOM Authors | Degree of authorship of UOM per paper |
|------------------------|--------------------|---------------|----------------------|--------------------|---------------------------------------|
| 1. | Single | 16 | 16 | 16 | 1 |
| 2 | Two | 226 | 452 | 416 | 0.92 |
| 3 | Three | 215 | 645 | 481 | 0.74 |
| 4 | Four | 216 | 864 | 557 | 0.64 |
| 5 | Five | 191 | 955 | 519 | 0.54 |
| 6 | Six | 166 | 996 | 490 | 0.49 |
| 7 | Seven | 93 | 651 | 316 | 0.48 |
| 8 | Eight | 51 | 408 | 157 | 0.38 |
| 9 | Nine | 21 | 189 | 105 | 0.55 |
| 10 | Ten | 15 | 150 | 52 | 0.35 |
| 11 | Eleven | 7 | 77 | 18 | 0.23 |
| 12 | Twelve | 9 | 108 | 42 | 0.38 |
| 13 | Thirteen | 8 | 104 | 21 | 0.20 |
| 14 | Fourteen | 4 | 56 | 23 | 0.41 |
| 15 | Fifteen | 2 | 30 | 8 | 2.67 |
| 16 | Sixteen | 3 | 48 | 12 | 0.25 |
| 17 | seventeen | 2 | 34 | 6 | 0.17 |
| 18 | Twenty two | 1 | 22 | 1 | 0.04 |
| Total in number | | 1246 | 5805 | 3240 | 0.55 |

The degree of authorship was computed based on below formula.

A= degree of authorship

SA = Number of authors of specific institution

TA = Total number of authors

$$A = \frac{SA}{TA}$$

Table 2 presents the predominance of multi-authored papers over single authored papers. The multi-authored papers account for 98.71% as a whole and the percentage of single authored paper is 1.29. Further regarding degree of authorship of University of Mysore, it is noted in the Table 2 that out of 5805 authors 3240 representing 55.81 % authors belong to University of Mysore. Therefore it can be inferred that contributions of faculty members and research scholars of University of Mysore is high in overall researches. The up and down trend of degree of authorship of UOM faculty and researchers can also be witnessed in the Table 2.

FINDINGS OF THE STUDY

The analytical study of citations of research papers of University of Mysore has revealed

many findings. The major findings sought from the study are presented below mainly covering the authorship pattern and degree of authorship of faculty members and research scholars of University of Mysore.

1. Collaborative research is more than the individual research
2. Out of 5805 authors 3240 authors belong to the University of Mysore and remaining 2565 belong to the other institutes
3. Among the total number of authors 14.14% of authors University of Mysore obtained first authorship in research papers
4. The degree of authorship of faculty members and research scholars of University of Mysore is high than that of other institutes in overall researches representing 0.55

CONCLUSION

The researchers have studied the authorship pattern of research publications of faculty members and research scholars of University of Mysore covered in web of science and witnessed the predominance of multi authored papers over single authored paper. The gradual growth of authorship was observed till 7 authored papers and later it was decreased.

Study concludes that the degree of authorship is significant in ranking any institutes based on its publication productivity. Researchers opined that this study will help University of Mysore in identifying the proportion of contributions in collaborated research publications.

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