















The ACI and RCI values of BRICS countries shown in table VII. South Africa has the maximum ratio of average citation per paper (CPP) 16.09, which signify the quality of research undertaken in the country, followed by China with 14.81 ACI, Brazil with 11.7 and India had somewhat closer citation values with Brazil and hence ACI value 11.56 is also more closer to it. Russia being the lowest ACI value with 7.43. For all the BRICS countries, South Africa and China, the RCI value is more than 1.00, i.e. 1.23 and 1.13 respectively indicating the higher citation impact. Brazil and India have almost equal RCI value 0.9 i.e. close to one indicate countries' citation rate is equal to that of BRICS share. Russia has RCI value less than one i.e. 0.57 indicate citation rate is less than other countries of study. Shashnov and Kotsemir (2018) got the similar results except for Russia in terms of citation metrics, they found that "For all BRICS countries except South Africa, the value of FWCI is below 1.00, i.e. less than the average global level of citation. South Africa, China, and Russia demonstrate quite rapid growth of the FWCI value" (p.1131).

## VI. CONCLUSION

Scientometric studies using the various bibliometric and economic indicators and techniques highlights the research contribution, performance and evaluation of various countries, institutions. The empirical data shows that BRICS countries contribution in social science subjects like economics is appreciable. China showed tremendous growth in research publication activities in economics after 2000 and other BRICS countries show steady growth. The collaboration effort in economics subject is comparatively less with science and technology arena. BRICS countries have tremendous potential in R&D in social sciences.

## ACKNOWLEDGEMENT

The author conveys sincere thanks to Indian Council of Social Science Research (ICSSR), New Delhi for providing financial support through Project titled "Scientometric Analysis of Research Output in the field of Economics among BRICS countries: A Study".

## REFERENCES

- [1] Amid BRICS' rise and 'Arab Spring', a new global order forms. (2011, 18 October). *Christian Science Monitor*.
- [2] Balasubramani, R. Siriwardena, Asoka & Abu, K. (2015). Science Funding Research Output in BRIC Countries: A Scientometric Analysis. *10th International CALIBER-2015* HP University and IAS, Shimla, Himachal Pradesh, India March 12-14, 2015 © INFLIBNET Centre, Gandhinagar, Gujarat, India.
- [3] Bartosova, J., & Bina, V. (2010). Influence of the relative poverty on the structure of household expenditures in the Czech Republic. In ICABR 2008–VI. *International conference on applied business research Ras Al Khaimah* 29.11.2010–03.12, 19–28.
- [4] Biradar, Nirmala & Tadasad, P. G. (2015). Authorship patterns and collaborative research in economics. *Journal of Indian Library Association*, 51(4), pp. 21-29.
- [5] Chitra, V., Jeyshankar, R., & Abu, K. (2014). Lung Cancer Research in G7 and BRIC Countries: A Comparative Analysis by Scientometric Method. *International Journal of Advanced Library and Information Science*, 2(1), 72-81.
- [6] Elango, B., Rajendran, P., & J, M. (2013). Tribology Research Output in BRIC Countries: A Scientometric Dimension. *Library Philosophy and Practice* (e-journal), 935.
- [7] Guan, J. C., Ma, N. (2007). A bibliometric study of Chin's semiconductor literature compared with other major Asian countries. *Scientometrics*, 70(1), 107-124.
- [8] Kumar, N. and Asheulova, N. (2011, September). Comparative analysis of scientific output of BRIC countries. *Annals of Library and Information Studies*, 58, 228-236
- [9] Lalitha Kumar, G. (2009) Synthetic Organic Chemistry Research: Analysis by Scientometric Indicators. *Scientometrics*, 80(3), 559-570.
- [10] Savanur, K. P. & Srikanth, R. (2010). Modified collaborative coefficient: a new measure for quantifying the degree of research collaboration. *Scientometrics*, 84, 365-371.
- [11] Savanur, K. P. and Bakanatti, S. (2018). Scientometric Study of Mathematics research among BRICS Countries as reflected in Web of Science database during 2011-2015. *Journal of Library Development (JLD)*, 4(2), p.25-29.
- [12] Schubert, A., Braun, T. (1986). Relative indicators and relational charts for comparative assessment of publication output and citation impact. *Scientometrics*, 9, 281–291.
- [13] Shashnov, S. & Kotsemir, M. (2018). Research landscape of the BRICS countries, *Scientometrics*, 117, 1115-1155.
- [14] World Economic Outlook (2013). IMF. April 2013.
- [15] Wikipedia, accessed Dec. 2018, Retrieved from [https://en.wikipedia.org/wiki/BRICS#cite\\_note-IMFApr2013-8](https://en.wikipedia.org/wiki/BRICS#cite_note-IMFApr2013-8)
- [16] Yang, L. Y., Yue, T., Ding, J. L., & Han, T. (2012). A comparison of disciplinary structure in science between the G7 and the BRIC countries by bibliometric methods. *Scientometrics*, 93(2), 497–516.
- [17] Yi, Y., Qi, W., & Wu, D. (2013). Are CIVETS the next BRICs? A comparative analysis from scientometrics perspective. *Scientometrics*, 94(2), 615–628.