

Abstract

Background& Objective: Scientific collaboration gives the researchers of various disciplines the opportunity to combine their capabilities, which can't be done individually. According to the scientific cooperation importance, in particular, Co-Authorship, this study intends to investigate Co-Authorship articles in a branch of new disciplines and interdisciplinary science: biotechnology.

Methodology: In the present scientometric study, Network analysis method is used to visualize Co-Authorship networks. There search community of this study includes 3796 article in the ISI database related to biotechnology area written by Iranian authors. Ucinet software and its complementary netdraw are applied for data analysis. Co-Authorship matrices were created by ravarmatrix software.

Result: General survey showed that the pattern of 4-writer Articles, with 1.22%, had the highest rate of Co-Authorship followed by three-author and five-author with 7/2% and 8/16% more than other patterns, respectively. Moreover, the cooperation level of 0/95 shows high tendency of this field researchers to scientific cooperation. Individual performance of the researchers in biotechnology Co-Authorship network was assessed by the production and centralization indicators. Based on these indicators, hossein Baharvand & Khosrow khajeh had the highest rank. also the performance of each of the universities and institutions indicated that Islamic azad university is at the forefront of most productive universities in the field of biotechnology.

Conclusion: In general, the process of authorship among researchers in the field of biotechnology has been rising during the studied period. The Co-Authorship was much more than single-Authorship in this area. The results also showed a significant relationship between the centrality of authors and their productivity. Also authors with higher centrality were more influential and powerful in the network.

Keywords: Power structure, Scientific collaboration, Co-authorship network, centrality measures, biotechnology field, web of science database