

The Impact of 'Sleeping Beauty' on Science: The Awakening of Coronavirus Publications

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Abstract

Introduction

The academic success of a country, institution or author is measured using bibliometric analysis methods. The most considered criterion in bibliometric analysis is the impact value of the publication. Scientific research, especially in fields such as medicine and health sciences, attracts great attention when first published. Citations reach their maximum a few years after being published and then gradually decline. However, the process doesn't always work perfectly. Some subject suddenly gain value. This allows publications written on this topic to double the number of citations years later. Such scientific publications are defined as "Sleeping Beauty in Science (SB)" by Van Raan in 2004. SB are publications whose significance has long gone unnoticed ("sleeping") and then almost suddenly attracted so much attention ("awakened by a prince").

Background and Aims

Especially in certain fields, The existence of SB publications makes it questionable to evaluate academic achievements according to the impact value of the publication. In the 21st century, it is seen that studies on the examination of SB publications have gained momentum.

The purpose of this poster study is to measure the rate of presence of SB publications in science based on coronavirus studies and discuss their bibliometric properties.

Method

In the study, articles and review publications indexed in Web of Science were examined. The search was done by creating a special search strategy for coronavirus. In order for a publication to be considered as a SB, it is necessary

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to pass at least 10 years after publication. Therefore, publications from 1990-2010 were included in the study. The first 1000 most cited publications among the publications found in the search results were examined. Analyzes were made with Excel and R Studio program. In the analysis, the publication year of the publication and the numerical and proportional distribution of citations by years were taken into account. Quotations taken by publication years were analyzed and compared with the quotations taken during the Covid-19 outbreak.

Results

According to the results obtained in the analysis, the year 2020 was the most cited date for 468 publications (46.8%). After the publication of 122 articles, the total number of citations received until 2020 is less than the number of citations it received in 2020 (12.2%). While the annual citation average of all publications included in the analysis before 2020 was 10.40, it was determined as 46.1 in 2020.

Conclusion

The impact value of a publication is the most frequently used evaluation criterion in academic success analysis. However, the impact of the publication may not always reach its peak within 2 years as expected. For some publications, this period may be more than 10 years. In our analysis, it is seen that some previous coronavirus researches are examples of publications called 'sleeping beauty' that reached their highest value years after they were published. This makes it clear that the evaluation of a publication according to the number of citations received in the short term should be questioned.

Keywords: Sleeping Beauty, Bibliometric Analysis, Research Impact, Coronavirus

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