COMPARING TREND OF WORLD'S MOST CITED SCIENTIFIC STUDIES WITH TURKISH SCIENTIFIC STUDY TRENDS REGARDING NANOTECHNOLOGY FIELD BY USING TECHNOLOGY MINING CONCEPT

Serhat Burmaoglu* and Akif Tabak

*serhatburmaoglu@gmail.com Izmir Katip Celebi University (Turkey)

Even it seemed adequate to perform foresight studies for centuries in the past, the evolutionary nature of technology needs performing adaptive policy making and strategy studies more frequently now. For standing in rapidly changing technological storm, it is important to evaluate future considerations continuously in the view of systemic perspective and dynamic environmental circumstances and to perform foresight studies with adaptive policy and strategy research for using national resources effective, efficient and productive.

When today's technology considered in this perspective, it can be envisioned that nanotechnology will effect more than Fordist applications for industrial revolution by the researchers. The importance of nanotechnology subject realized by TUBITAK and BTYK with publishing a Strategy Document. Nanotechnology is considered as a strategic technology field in National Science and Technology Policy 2003-2023 Strategy Document and emphasized that this subject should be studied under the headings as: (1) Nanophotonic, Nanoelectronic, Nanomagnetisma (2) Nanomaterial, (3) Nanocharacterization, (4) Nanofabrication, (5) Nano Scale Quantum Data Processing, (6) Nanobiotechnology in the view of welfare of the nation, economy and national security.

By understanding the importance of this subject in the national level, the aim of this project is to compare the most cited 1000-5000 nanotechnology publications trends in recent decade with Turkish nanotechnology publication trends. With the results of this comparison, potential of Turkish nanotechnology publications will be evaluated and alternative research strategies will be proposed in the light of World publication trends.

For carrying out the project's main aim, these studies will be performed in the project:

- (1) By downloading the most cited 1000 and 5000 nanotechnology publications separately from Web of Science database publication trends will be analyzed under subject, keyword, author, funding organization and research entity contexts.
- (2) The procedure mentioned in the first item will be performed for Turkey with the same subject headings and in the light of augmented findings the trends will be compared.

Consequently, in the view of comparison data, the gap between Turkish publication trends and World publication trends will be analyzed and alternative research strategies will be proposed.