A BIBLIOMETRIC ANALYSIS ON INNOVATIVE POTENTIAL FOR THE PERIOD OF 1992-2022

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Abstract: *The explosive growth of research and technology around the globe in the last several decades has made innovation research extremely important. The objective of the study is to outline the development of academic study on innovation from 1992 to 2022. To achieve this goal, the study makes advantage of the Scopus-based publications, which are widely considered to be among the most important databases for scientific research. On the basis of innovative potential worldwide, the most well-known journals, top authors, top-cited articles, top countries, and leading institutions were examined. The number of innovation studies conducted each year is analyzed in this article and contrasted with the total number of papers published in the database each year. Subsequently, the work examines the citation structure in this area to determine the total number of citations that each paper in the field has received. The analysis of the leading subject cluster name in this field concludes the research.*

Keywords: *Authors, publications, citations, Innovative potential.*

INTRODUCTION

Innovation is the backbone of current competitive environment by introducing the latest product and services into the market that can add value to the wealth of the society. In the last 10 years, the demand for innovation has increased significantly. The reason for this is the quick changes in research and technological advancements worldwide. In order to achieve competitiveness in the market, the process of product improvement is continuously being implemented by multinationals. They developed a section in their organization which mainly emphasis on innovation. As a result, academic study of innovation is growing in importance through the community of scientists. Many researchers are conducting research on innovation in study groups and departments at various universities throughout the world (Christian A. Cancino, Jose M. Merigo, 2015). Being innovative is essential for the development of companies that can meet the difficulties of the modern economy (Kosała, 2015). Currently not only the practical operation of innovative technologies but also theoretical consideration of these trends has increased significantly (Yakovleva et al., 2015). Different types of economic organizations urgently need to establish new bases for innovation and competitiveness in order to compete worldwide (Shvindina et al., 2022). Investigating the essence of innovation

activities and the economics of their incentives focuses on the extensive process of developing theories and ideas, issues of priority, issues of innovation, and the requirement for new ideas in various economic and cultural contexts. Innovation results from the transformation of concepts, research, development, new or improved scientific and technical, socioeconomic, political, and other decisions that support, improve the quality and standards of living of the population, and national security through the balancing of the economic advantages of economic enterprises, market of consumer welfare, and societal interests, reducing unemployment, rise in incomes of households and deduction of their variation, the tax base growth, improvement in regional as well as global competition and so on (Yakovleva et al., 2015).

According to the global competitiveness report, cross-country and cross-regional discrepancies, and the development of innovation of industrials expresses the effort to build and support competitive level at a high degree and rise innovation potential (Shvindina et al., 2022). One of the more extensively studied subjects in management and economics worldwide is innovation. The development of innovations serves as a significant incentive for the overall economic development of a nation, according to international experience, in addition to serving as the primary tool for enhancing the competitiveness of a single firm (Nurpeisova et al., 2020). Currently, Russia treats itself as a fast moving economy towards innovation (Veselovsky et al., 2019). Establishing a complex innovational system of developed infrastructure is required to achieve the long-term specific plan of the Russian Federation government of transforming the economy into an innovative one. This will enable all participants in the innovation process to see and understand the market for Russia's technological innovations (Vaganova et al., 2015). There is a pressing need for Russia to quickly adapt to a new technological paradigm, which calls for a complete technological and innovative landscape renewal to make the economy fully innovative (Veselovsky et al., 2019). Technological In Kazakhstan there are lots of prerequisites for the innovative potential development. Kazakhstan has established institutes, adopted laws, and a variety of programs. The growth of creative entrepreneurs capable of fast launching high-tech items is assigned a significant role (Nurpeisova et al., 2020). China recently demonstrated serious intentions to transition from being the global manufacturer to a leading innovator of the world. According to a speech made by China's president, Xi Jinping, during the conference of the China Association for Science and Technology, in which he underlined that "Great scientific and technological capacity is a must for China to be strong and for people's lives to improve. China must be on the course to being a leading innovator worldwide by 2030." Likewise, Li Keqiang, the Chinese premier, used the word "innovation" 38 times in his research report for 2018 (Zhan et al., 2020).

When examining the opinions of the pioneers on this subject, including Schumpeter (1912) and Rogers (1983), extreme attitudes toward the understanding of innovation can be observed (Kosała, 2015).

The researchers take into account innovation from a variety of angles: Innovative undertakings (Zwolak, 2016); strategic management of innovation development (Veselovsky et al., 2019); and bibliometric analysis: Cross-country analysis of competitiveness towards innovation potential assessment for industrials (Shvindina et al., 2022) and the rise of 5G technologies and systems (Mendonça et al., 2022).

Numerous bibliometric analysis and statistical assessments were investigated in the field of innovative potential. Practically most of the analysis were focused on a universal scale. Three topics were chosen from the Scopus database for the years 1992–2022 based on the main target of the study for all over the world.

LITERATURE REVIEW

One of the most crucial aspects of the contemporary economy is innovation, which serves as a "stepping stone" to raising standards of living and ensuring a sustainable, ecofriendly future. Socioeconomic life and human existence in all of its forms depend heavily on innovation. The term "innovation" has over a hundred different definitions and applications today (Nurpeisova et al., 2020). Currently, innovation is known as the main competitive advantage for companies by its significant influence on survival and growth of companies (Chión and Charles, 2018). Innovation is a key determinant for any nation since it propels economic growth and has a good effect on society by requiring the private and public sectors to establish a setting that will promote the growth and success of internal innovation processes (Fernández and Gómez, 2021). Innovation potential is a mystery for an academic yet as The debates over the origins and characteristics of innovations have not decreased ever since Schumpeter; in his writings innovations were defined as a novel combination linked to a new product, new technology and quality of a product, a new manufacturing method, a growing paradigm, a primary method of raw material supply, or the adoption of a new structure in an industrial sector (Shvindina et al., 2022). Innovation, which enables the industry's existence and stability of its competitiveness, is the motivating factor behind growth (Zwolak, 2016). The market's general level of competition is another important factor in innovation. Since customers have no other options, we anticipate seeing a negative link between the extent of market dominance (quasi-monopoly) enjoyed by one company and the incentives for management to engage in innovation. On the other hand, we anticipate seeing a stronger need to set oneself apart from competitors in a more competitive market. In this setting, innovation is one of the major forces influencing productiveness and competitive advantages (Zhan et al., 2020). The ability of the business to efficiently utilize resources in order to create novel procedures and products is expressed by its innovative potential (Zwolak, 2016). Most nations now rely heavily on the development of highly innovative technologies and their industrial application to fuel economic growth. As a result, rivalry among nations is centered on the application of scientific knowledge to various industries (Yakovleva et al., 2015). When deciding on methods for the strategic management of inventive development of the industry, the scientific article "Flexibility and Endogenous Innovation" by R.M. Solow

is helpful (Veselovsky et al., 2019). The major productive force, the primary tool of competition in determining economic growth, and the dynamics of the relative economic might of states all depend on innovation in the current global economy. Only the least advanced nations in the developing world still place their hopes primarily in their natural resources and cheap labor (Yakovleva et al., 2015).

METHODOLOGY

The term "innovative potential" was used to examine and review every publication. Overall, 434 documents were revealed between 2012 and 2022. The year of publication, the names of the journals, the authors, the countries, the sort of publishing, the number of citations per paper, the number of citations per journal, and the number of publications per subject cluster name were then included in the categorization of the database.

RESULTS AND DISCUSSION

1. Released publications concerning innovative potential

Over the period of 2008–2022, 434 publications were published throughout the globe concerning innovative potential. According to figure 1 it is demonstrated that at the start of the research year in 2008, just one paper was published. The largest number of articles appeared to be published in 2017. Approximately 30% of articles were published from 2008 to 2015 and the remaining 70% were published between 2016 and 2022.

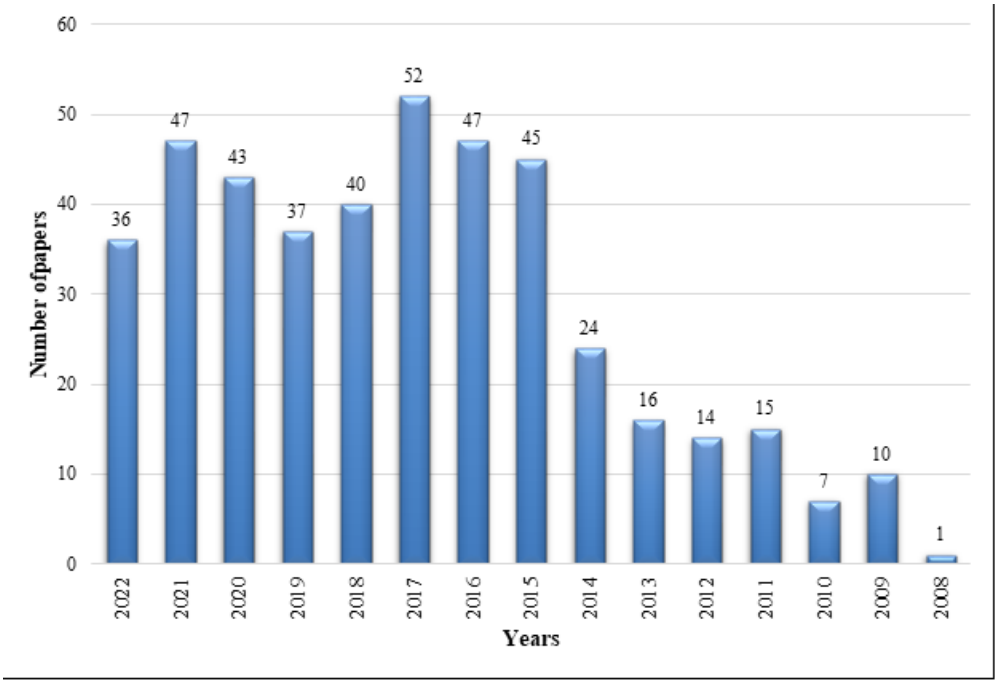

Figure 1: Number of papers on innovative potential based on the publication year.

Source: Scopus database (2008-2022).

2. List of top authors regarding innovative potential

Researchers are crucial to the continued development of their own field of study. In the past three decades (1992-2022) total of 160 different authors contributed their effort to publish 463 papers for the innovative potential in the world. Approximately 76% of the articles published were written individually (one paper per author); the rest of the work was written by two, three, or more writers. 122 writers published their works under one

author's name. The top 15 writers who published at least two and more publications are shown in Figure 2.

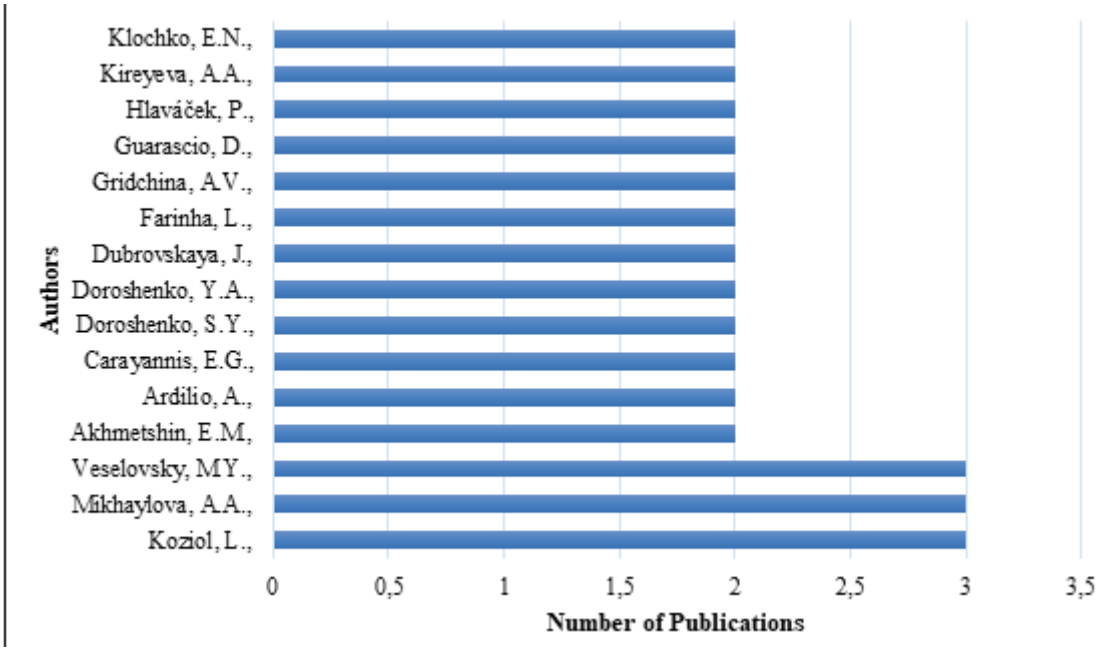

Figure 2: List of top authors published on innovation potential

3. List of top countries on innovative potential

Multiple nations involved in conducting research on a certain subject. Between 1992 and 2022, 81 nations worked on issues pertaining to innovative potential. In Figure 3, we have included the top 12 countries that have published at least 11 or more papers. According to the number of publications, Russian Federation, United States, United Kingdom and Kazakhstan are at the top of the list with 111, 50, 44, 32 respectively.

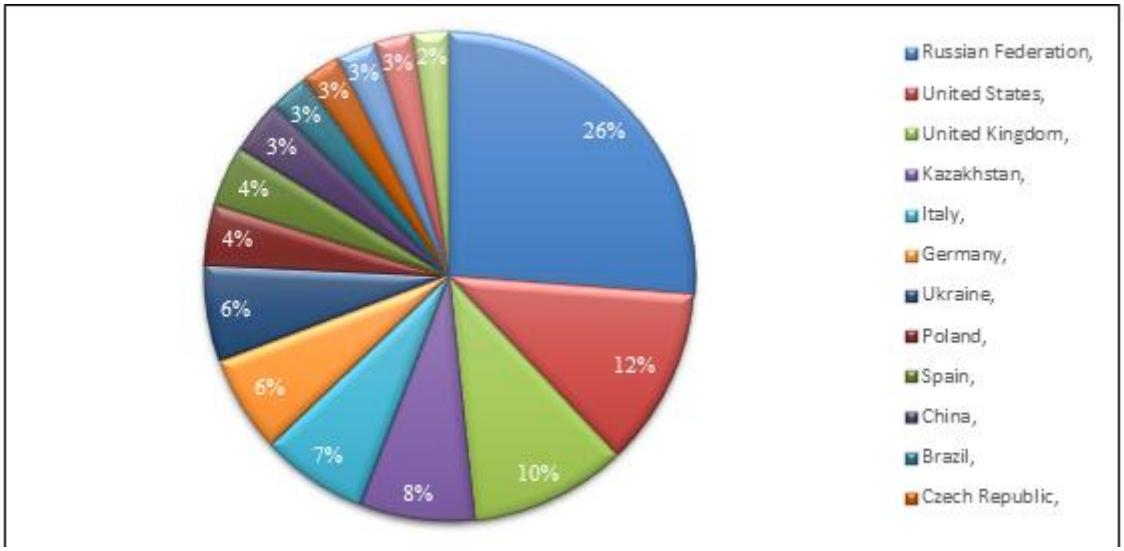

Figure 3: List of top countries on innovative potential subject

4. Top institutions on innovative potential

Several institutions took part in publishing papers on innovation potential issue. Total of 160 different institutions participated in publishing papers and top 15 institutions are selected with at least 4 and more published papers between 1992 and 2022. Kazan Federal

University, L.N. Gumilyov Eurasian National University, Russian Academy of Sciences, Narxoz University leading the list with 10, 11, 9 and 8 publications correspondingly.

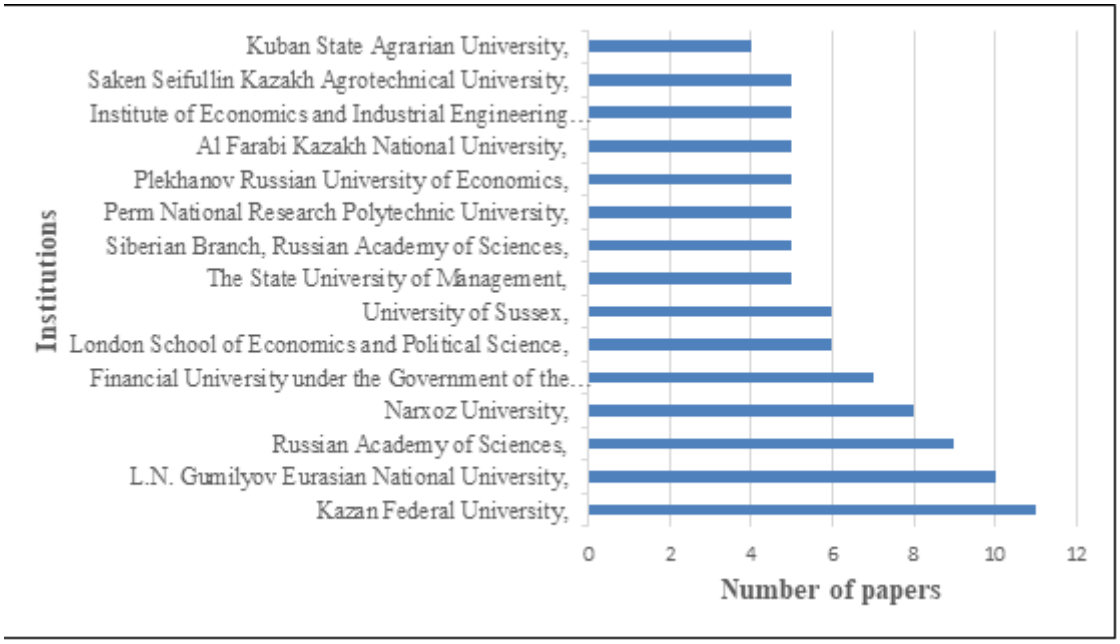

Figure 4: List of top institutions on innovative potential subject

5. Publication type on innovative potential

Researchers can present their findings in a variety of publication formats. Figure 5 displays the five major publication categories that contain papers published on innovative potential within the specified period. Overall, 463 papers published on the subject as article, book chapter, conference paper, review and book with 401, 31, 18, 10 and 3 publications correspondingly.

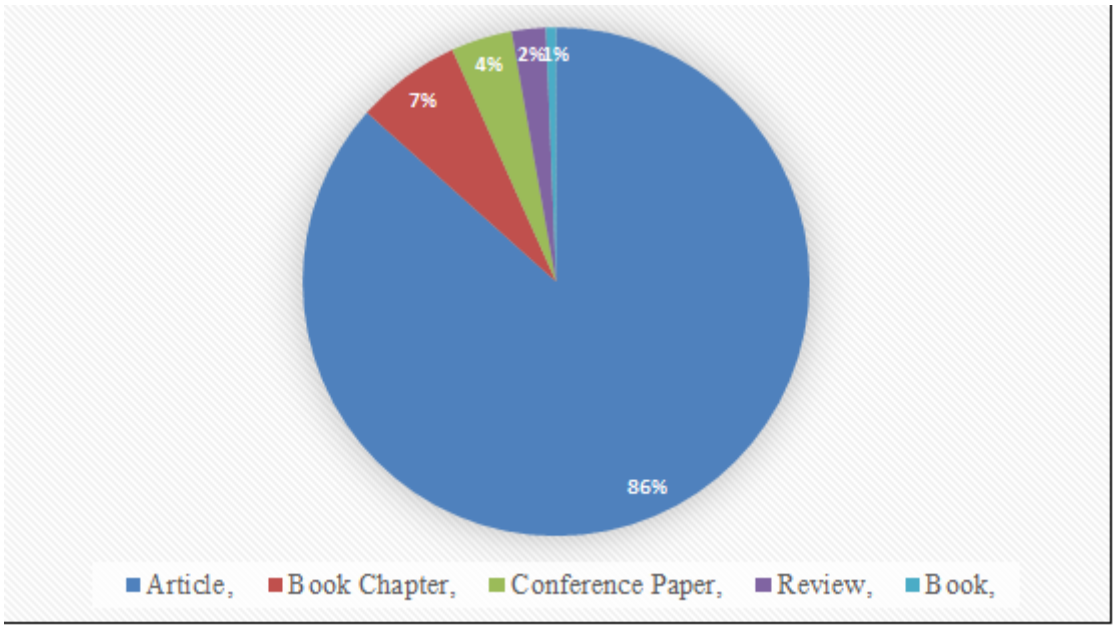

Figure 5: Publication category on innovation potential

6. List of top cited publications on innovative potential

The amount of citations demonstrates the novelty and high level of the study that was done. For the specified period, 120 papers with innovative potential received a total of 169 citations. 15 top publications from the Figure 6 received nearly 37% of the citations.

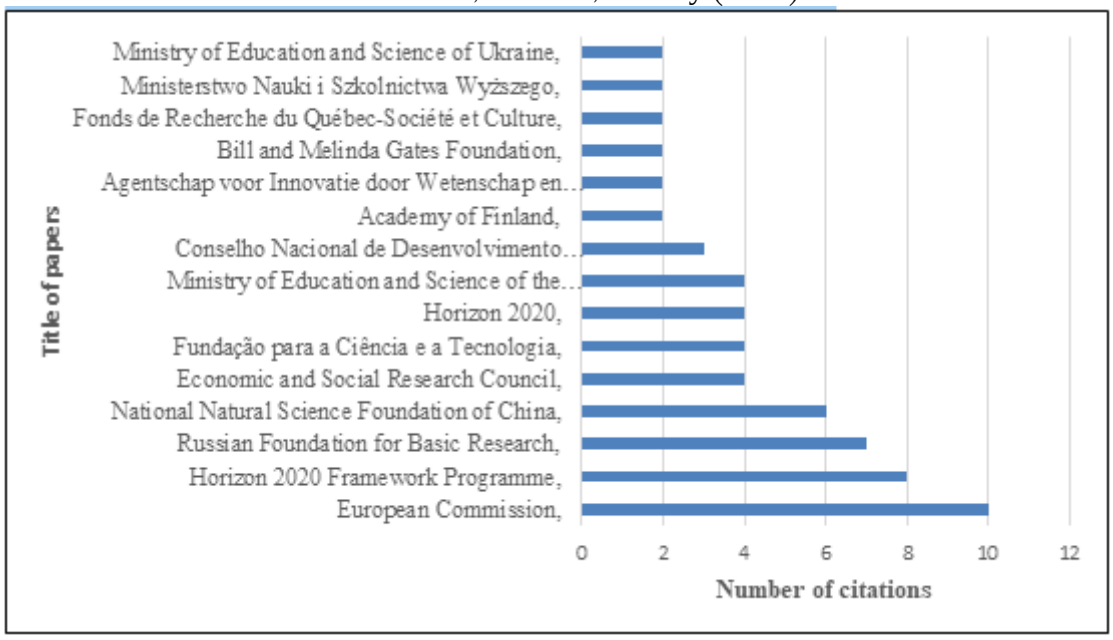

Figure 6. Top cited publications innovative potential

7. Top cited journals on innovative potential

Total of 394 papers on innovative potential for publication in 146 journals between 1992 and 2022 have been chosen. Figure 7 displays the top 15 referenced journals that were chosen. About 35% of the overall citations were provided for articles that were published in the aforementioned 15 publications. Actual Problems of Economics, Mediterranean Journal of Social Sciences, Economic Annals Xxi journals are at the top referenced journals with publications of 17, 13, 11 respectively. Approximately 13% of the citations provided for the articles published in the journal of Actual Problems of Economics.

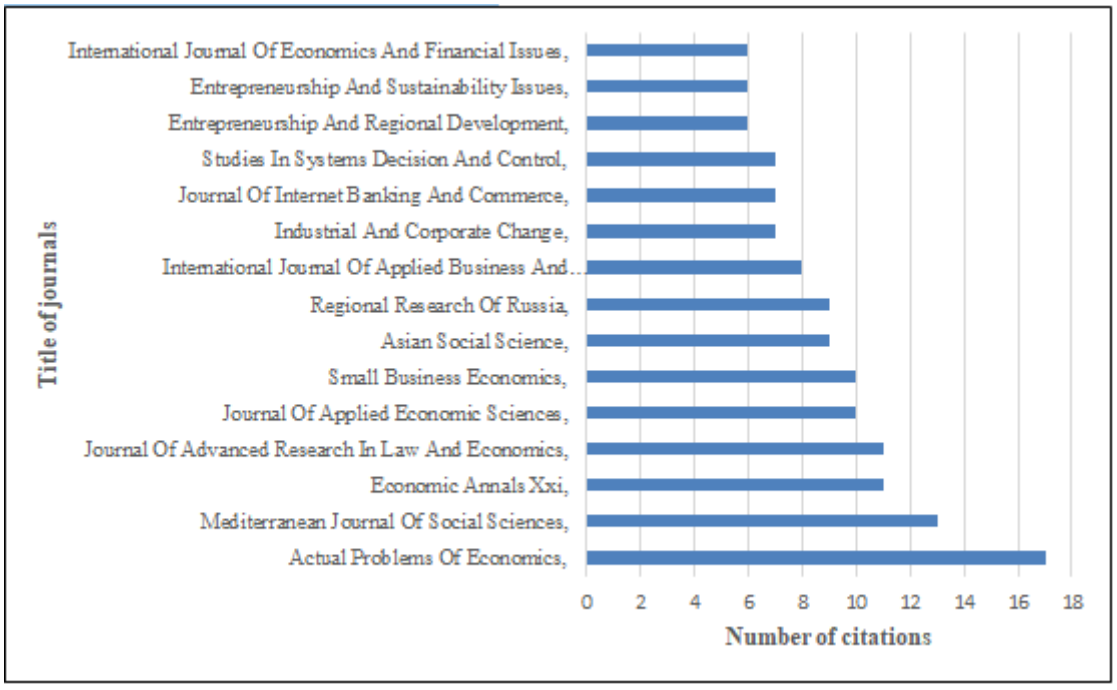

Figure 7. Top cited journals on innovative potential

8. Publications by the topic cluster name on innovative potential

For the subject areas listed in the Scopus database, there are many topic cluster-names available. The majority of published articles on innovative potential fall under one of the eight topic cluster names presented in Figure 8. Economics, Econometrics and Finance cluster title embraces the majority of all publications with around 46% of total publications whereas Business, Management and Accounting 21%, Social Sciences 17%, Environmental Science 6%, Arts and Humanities 4%, Computer Science 3%, Engineering 3% and Decision Sciences encompasses 2% of the total publications.

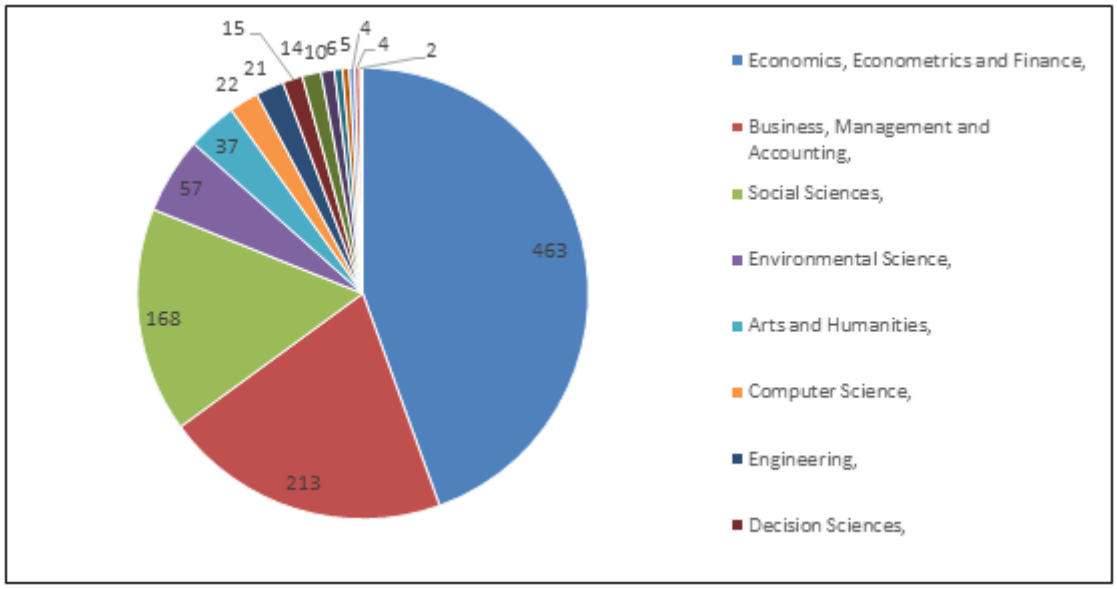

Figure 8. Top subject cluster name on innovative potential

CONCLUSION

An overall bibliometric summary of research on innovative potential conducted between 1992 and 2022 was given in the publication. The analysis of articles published on innovative potential throughout the world during the past 20 years was based on the Scopus database. The number of articles published and the number of highly esteemed journals were examined in this field. Koziol, L., Mikhaylova, A.A. and Veselovsky, M.Y. are leading in the list of top authors. Kazan Federal University, L.N. Gumilyov Eurasian National University and Russian Academy of Sciences are at the top institutions list. Actual Problems of Economics, Mediterranean Journal of Social Sciences, Economic Annals Xxi journals were selected as the top journals in the field of innovation. 1. Economics, Econometrics and Finance, 2. Business, Management and Accounting, 3. Social Sciences, 4. Environmental Science, 5. Arts and Humanities, 6. Computer Science, 7. Engineering, 8. Decision Sciences are the most frequently used subject cluster names for the research papers on innovative potential.

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