Searching for entrepreneurship: The perception of the phenomenon

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Abstract
In the article, the picture of entrepreneurship, its empirical/conceptual context, discipline diversity and orientation emerging from the bibliography searching process according to relevance in Google Scholar were assessed. Preliminarily, a comparison with other forms of obtaining scientific information about entrepreneurship was made. Some evidence has been found on the directions of the possible influence of this source of knowledge on the perception of the entrepreneurship phenomenon. The popular scientific databases/search engines in terms of entrepreneurship terms retrieval were compared. After selecting Google Scholar, a set of articles about entrepreneurship was analysed. The method of literature analysis and criticism was used. In order to develop interest in entrepreneurship, it is necessary to analyse the publicly available sources of economic knowledge more often in order to prevent possible distortions of the image of phenomena and efficient detection of unfair practices.

The research popularity of entrepreneurship is high, but the limitations faced by readers interested in it may slow down the progress of scientists’ achievements and the creation of a separate field, and may even cause a loop/stagnation disproportionate to the interest in this area of science. It is worth paying attention to the popularization of scientific databases/search engines, and becoming familiarized with the results of the research in this field.

1. Introduction

Entrepreneurship is a popular scientific issue developed at the same time in many areas of social sciences. It is flexible insomuch that it appears as an important research sphere in economics, management, sociology, psychology, pedagogy, law, political sciences and education. The highly permeable boundaries of entrepreneurship facilitate intellectual exchanges with other areas of science. However,
this permeability can sometimes hinder the development of the theory of entrepreneurship — it is difficult to find one’s own research method due to its vast spectrum. In order to grasp the interdisciplinary nature of the phenomenon, one should read and draw conclusions not only from the field studied by a given scientist, but also from others. High substantive and technical skills, as well as the ability to select appropriate data sources, are required.

Papers about entrepreneurship are often multi- or inter-disciplinary in nature. The multitude of definitions used draws attention to the unresolved research problem of the lack of a single, coherent definition of entrepreneurship combining all applied approaches into an acceptable completeness. The problem and the ongoing scientific dialogue about the definition of entrepreneurship were pointed out by Shane and Venkataraman (Shane and Venkataraman, 2000). Despite the passage of years, it has not yet been resolved. Moreover, entrepreneurship is usually manifested as a multi-level phenomenon, as it concerns individuals, social groups, populations, enterprises (Carlsson, Braunerhjelm, McKelvey, Olofsson, Persson and Ylinenpää, 2013), which makes it difficult to smoothly and understandably move between different levels in studies. Therefore, the concept of entrepreneurship can certainly be described as polysemic (having many meanings). This diversity may hinder the phenomenon analysis due to the breadth of available content, different or inconsistent definitions and research methodologies, or the scope of each researcher interests. On the other hand, it can contribute to cutting-edge research interpreting entrepreneurship in a broader context, drawing on a variety of sources that enrich and accelerate the development of the entrepreneurship field.

The problem of the conceptualization of entrepreneurship has been at the forefront of unresolved problems of entrepreneurship for years. In order to develop this emerging field, one should focus on formulating a broad, relatively consistent and acceptable taxonomy of the phenomenon which would promote the popularization of research and scientific achievements in practice. It seems that it can also contribute to the broader interest in going beyond the patterns issues in the field of entrepreneurship, including “everyday entrepreneurship” postulated by Welter et al. (Welter, Baker, Audretsch and Gartner, 2016) and highlight difficulties in talking about entrepreneurship (Bögenhold, 2019). In this way, the participation of people interested in entrepreneurship may increase far beyond the academic audience. This interest should be observed, and the perceptual abilities should be developed and directed to proven and reliable sources of knowledge.

Nowadays, open access to scientific publications seems to be a standard, but in practice, many publications are unavailable until subscribed to or paid for. Due to financing by the institutions in which scientists are employed (or perform a duty on different principles), they can gain full access to reliable databases/search engines of scientific literature. Research centers take care, as far as possible, to provide their charges access to the latest scientific achievements. However, due to the unit’s underfunding or budget cuts, it is not always possible to use such sources.
Being familiar with the skillful searching for knowledge becomes an important feature, including among other social groups. But, without access to databases, for example via a university library, people may not be aware of where to look for the necessary information. Google Scholar comes to the rescue. Although this is a relatively new search engine, it has greater range than any other source. It therefore seems to be a suitable search engine for acquiring information about entrepreneurship.

This article assesses the availability of research papers in the field of entrepreneurship in Google Scholar and the relevance of searching these materials. A preliminary comparison with other sources of obtaining scientific information about entrepreneurship was also made. It is imperative to understand the obstacles and potentials involved. In addition, selected literature on entrepreneurship available on Google Scholar was examined in more detail. The study focuses on the approach to entrepreneurship according to the scientific discipline used in the analyzed literature, research orientation (in the context of a conceptual/empirical approach), and the method used.

2. The framework of entrepreneurship — different perspectives

Entrepreneurship approaches, types and components are determined by how this phenomenon is perceived by scientists working in various scientific disciplines. Some elements are consistent, while others differ from each other. Ultimately, this diversity makes entrepreneurship a very prolific area of science. Economics plays a major role in the formation of knowledge about entrepreneurship.

Economics studies the problems of relative scarcity: individuals are willing to consume more goods and services than they have at their disposal. Unlimited and clearly insatiable needs definitely outweigh the limited resources (land, labour, capital and entrepreneurship) to satisfy them. The recognition of entrepreneurship need (in its various dimensions) translates both into the directions of entrepreneurship research, the evolution of theory, the objectives of economic or regional policy, and the popularity/availability of education, courses and training courses that include entrepreneurship education. Entrepreneurship is seen as a remedy for problems of various categories, primarily centred on shortages in society.

The primary dimension of entrepreneurship remains the entrepreneur and their economic activity. Entrepreneurs pursue economic goals (profit, rational use of resources), and look for opportunities, changes, and satisfaction. When we refer not to profit, but to ‘benefits,’ it turns out that the definition of entrepreneurship includes activities such as social ones. Entrepreneurs process the reality around them, and as people specializing in taking responsibility and making judgmental decisions, they influence the location, form and use of goods, resources and even institutions (Hebert and Link, 1989).
Bygrave formulated the definition of the entrepreneurial process as follows: these are all functions and activities related to the perception of opportunities and the creation of an organization to take advantage of them (Bygrave, 2004), while Gartner (Gartner, 1985) created a framework for describing the creation of new enterprises. It turns out that there is a consensus about the insufficient degree of research into the issue of the entrepreneurship process (Moroz and Hindle, 2012). The process perspective allows for a broader view of the entrepreneur, who can also be defined as an activist in the business sector, as well as in NGOs, education, healthcare, police, administration, etc.

The entrepreneur can be considered even more broadly through their characteristics, attitude and behavior. It is worth quoting the famous work by Gartner from 1989. He has been firm and diligent in proving that feature-based approaches are less scientifically productive. This is related to the ease with which one can fall into the trap of one’s own work when studying personality traits — when comparing the works of various scientists, it can be concluded that the features that were to distinguish entrepreneurs from other groups are too homogeneous, which ultimately does not lead to any fruitful conclusions (Gartner, 1989). This approach has met with much criticism.

Entrepreneurship is often extended to aspects of life other than economic, and it can be assumed that while the entrepreneur is strictly related to their own business, other forms of manifesting entrepreneurship (e.g. in the form of extraordinary activity and coping at work, or in general, in life) can be equated with entrepreneurial people. Entrepreneurship, understood as an attitude to life and promoted among citizens, becomes necessary for the proper and accelerated development of the state.

Psychology deals with entrepreneurship from the personality, cognitive, temperamental and axiological perspectives of human functioning. It seems especially interesting to focus on the mechanisms which determine the entrepreneurial output and how entrepreneurs differ from other social groups.

Pedagogy treats entrepreneurship as a possible effect of human development under the influence of upbringing, environment and education. In pedagogical research, shaping entrepreneurial attitudes takes place in the process of teaching and learning. Therefore, the student and their intellectual and psychological predispositions, as well as the teacher with their knowledge, pedagogical skills and didactic tools, are the most important here.

In sociology, the emphasis is on the entrepreneur and the influence of their environment, culture, tradition, experience and family on the enterprise. The enterprise is treated as a system of social groups and a network of social relations.

Management science sets out preparation for starting an enterprise and performing activities related to running a business in the context of the associated risk. This lead to a certain paradox: business owners who hire professional managers to run their enterprises while they do other activities themselves are no long-
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er entrepreneurs. A similar principle applies to professional managers, because if their job is to run someone else’s business when they are not fully personally responsible for it, they are not entrepreneurs (Griffin, 2004). In a larger enterprise, where the owner is not fully involved in the business and employs a manager who is not fully responsible, paradoxically, there is no entrepreneur.

The attention to deviation from the traditional, basic perception of entrepreneurship was also given in the work of Kusio and Fiore (2020), in which entrepreneurship is primarily a professional and educational activity, and not starting a business. Therefore, they confirm that the definition of entrepreneurship may refer mainly to an entrepreneurial person who does not necessarily have to be an entrepreneur.

After citing exemplary applied definitions and approaches occurring in various areas and fields of science, it can be confirmed with certainty that entrepreneurship is a multidimensional phenomenon, difficult to recognize and define. The possible difficulty in quantifying and capturing its essence, especially at the beginning of the process of learning about this phenomenon, prompts research on the possibility of acquiring knowledge about entrepreneurship and the image that appears when using one of the most common sources.

3. Research methodology

The young market of search engines, combined with its rapid development and growing importance for society, poses challenges to economic literature. Search engine users value match quality as well as the quality and relevance of search results, and therefore, it play a key role for them (Lianos and Motchenkova, 2013). Entrepreneurship data sourcing is a key component of this research.

In order to meet the set goals and hypotheses, a two-step methodological approach was used. The quantitative bibliometric analysis with the use of a search by topic or thematic classification allowed to assess the abundance of the analyzed databases/browsers in terms of the availability of literature in the field of entrepreneurship. In this part of the study, the only material inclusion criteria used were: (1) search by keyword ‘entrepreneurship’ in total or in the title, and (2) open access availability.

Among many respected databases and search engines, six were selected for this analysis: Google scholar, DOAJ, Elsevier/ScienceDirect, EBSCOHost, Wiley Online Library and Web of Science. Attention was paid to including paid platforms, as well as free or offering partial free access, maintaining diversity. No particular selection key has been applied here.

Based on the results obtained in the first stage, the search engine with the broadest availability of materials was selected. A set of entrepreneurship articles that met the criteria: (1) use the word ‘entrepreneurship’ in the title or content of

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the article, (2) the full text being available in open access, and (3) being up to the fifth page of the search engine, was selected for further qualitative analysis. No type of publication was rejected at this stage. Nineteen materials (listed in the Appendix) met the selection criteria. In addition, the reference section of each article was used to calculate the number of citations. That enabled the researcher to evaluate the state of the literature available in the selected browser.

The author is aware that the selected subset may be considered too small, but such a drastic reduction in their number resulted from the limited possibilities of the author herself. Working alone, with other, significant limitations related to the previously undertaken professional obligations, it was not possible to undertake an analysis of wider material in such a short time. Conclusions from the research conducted so far are also the reason for undertaking further attempts to deepen the topic and look for opportunities for cooperation in extending the analysis in the interdisciplinary field among representatives of other fields of science. Therefore, this work can be treated as a contribution to the further analysis of the discussed important issue of searching for knowledge about entrepreneurship.

4. The entrepreneurship knowledge source and its usability

Reliable professional literature databases may deter a reader by the limited scope of searches or the limited availability of full content with free use as open access. Assuming that some scientists may struggle with the problem of under-financing and limited access to such databases, it was decided to check how the free Google Scholar search engine copes with economic knowledge in comparison with selected databases. The following research hypotheses were made.

Hypothesis 1: Google scholar will provide access to more scientific articles with the keyword ‘entrepreneurship’ in the title (content) than economic literature databases/searching engines such as: Elsevier/ScienceDirect, EBSCOHost, Nature, Willey Online Library or Scopus.

Hypothesis 2: The relevance of Google Scholar’s search can be assessed highly.

Being curious about retrieved literature and the emerging shape of entrepreneurship in the literature available in the analyzed search engine/bibliographic database, the author decided to test the following hypotheses as well. In the publicly available literature, sorted by relevance and available on open access through Google Scholar, the following was checked.

Hypothesis 3: The entrepreneurship phenomenon will be perceived mainly through the prism of economics.

Hypothesis 4: The empirical approach will dominate the conceptual.
Table 1. Searching for the term ‘entrepreneurship’ in selected databases, with the use of basic search forms

<table>
<thead>
<tr>
<th>Name of database / searching engine</th>
<th>Total number of found works</th>
<th>Number of found works in the open access (OA) system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directory of Open Access Journal (DOAJ)</td>
<td>12,132 (in all fields) 2,851 (in the title)</td>
<td>the same</td>
</tr>
<tr>
<td>Elsevier/ScienceDirect</td>
<td>32,762</td>
<td>5,303</td>
</tr>
<tr>
<td>EBSCOHost</td>
<td>187,007 141,608 (full text)</td>
<td>–</td>
</tr>
<tr>
<td>Wiley Online Library</td>
<td>33,035,000</td>
<td>886,000</td>
</tr>
<tr>
<td>Web of Science</td>
<td>50,719</td>
<td>11,519</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>2,320,000</td>
<td>1,484,800 (estimated)</td>
</tr>
</tbody>
</table>


In the Directory of Open Access Journal (DOAJ), two options for search term location were used: in all fields (title, abstract, keywords, author, orcid, doi and language) and in the title. The result of the search according to the first category was 12,132 articles; however, the quality of such a search leaves a lot to be desired – there were, for example, works inconsistent with the search language, and topics that were not related to the topic at all or only slightly, which generally created unnecessary ‘noise.’ When searching by the second option, the quality of match significantly increased, but there were only 2,851 articles. The main advantage of the search algorithm is the novelty of articles, which allows a reader to get acquainted with relatively new achievements in a given field.

In EBSCOHost, using a basic search (no additional settings or changes used) results in 187,007 scientific works. The database also allows for searching by full text, which results in gaining access to 141,608 publications that meet the criteria.

Under the banner of ‘entrepreneurship’ in ScienceDirect, Elsevier’s premier platform of peer-reviewed literature, are 32,762 articles, 5,303 of which are open access.

The Wiley Online Library searches for the indicated keyword anywhere, sorting found works by relevance or date. With 33,035 materials found, only 886 were published in the open access system.

Using the Web of Science, i.e. a package of abstract-bibliometric databases (the so-called citation indices), users managed to find 50,719, and 11,519 open access scientific works were yielded. This is the only database in which the author encountered technical problems – the search engine’s slowness and the associated delays.

Meanwhile, in Google Scholar, retrieving the word ‘entrepreneurship’ anywhere in the article (standard search mode), 2,080,000 scientific papers were found (date of search: 12.02.2021). Searching after less than four months, this result increased to 2,320,000 works. Interestingly, when searching for the word...
‘entrepreneurship’ only in the title of the article, as many as 173,000 works were gained, thus still significantly exceeding the search possibilities in other databases. The key disadvantage of this platform – the inability to search only full text works that are in the ‘open access’ system – implies the need to use simple estimation calculations. The first ten pages of the search were checked and the following estimates were attempted: for 10 pages of the search, i.e. 100 articles, 64 full papers were obtained. Assuming that the rate of 0.64 would stay on the remaining pages, it can be hypothetically assumed that Google Scholar provides as many as 1,484,800 works strictly within the given topic. Thus, it was possible to support the hypothesis that, under the assumptions made, Google Scholar allows one to browse more scientific articles containing the slogan ‘entrepreneurship’ in the title (content) than the aforementioned databases. It looks quite optimistic, but only seemingly; among the first 100 articles found, there were three papers without scientific standard.

Table 2. Scientific material type, discipline and approach in the acquired sources of knowledge

<table>
<thead>
<tr>
<th>The scientific material type</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles (+ essays)</td>
<td>10</td>
</tr>
<tr>
<td>Books (monographs, handbooks, conference proceedings)</td>
<td>4</td>
</tr>
<tr>
<td>Reports</td>
<td>4</td>
</tr>
<tr>
<td>Chapters</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
</tr>
<tr>
<td>Disciplines</td>
<td>N</td>
</tr>
<tr>
<td>Economics</td>
<td>17</td>
</tr>
<tr>
<td>Management</td>
<td>6</td>
</tr>
<tr>
<td>Interdisciplinary (two or more disciplines)</td>
<td>9</td>
</tr>
<tr>
<td>Approach</td>
<td>N</td>
</tr>
<tr>
<td>Empirical</td>
<td>7</td>
</tr>
<tr>
<td>Conceptual</td>
<td>6</td>
</tr>
<tr>
<td>Hard quantifiable</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: own elaboration.

Of the total 19 materials analyzed, the earliest one was published in 1968, the latest one in 2011. As can be seen, the indicated method of searching for materials condemns the reader to the difficulty of getting acquainted with the achievements of the last decade. The harmfulness of such a depletion of acquired knowledge for scientists who should broaden their horizons with the latest scientific achievements is high; thus, researchers should also search by date. It is different in the case of other interest groups, for which it is more important to consolidate knowl-
ledge than to be familiar with the newest achievements; in their case, this source works well, providing access to classical, theoretical, and empirical works, even textbooks. Probably voices may arise which say that limiting myself to searching by relevance instead of by date may be read as malpractice, but I must object to it. For databases such as EBSCOHost or Web of Science, indeed, such a restriction would be at least inappropriate, but not in Google Scholar and under earlier assumptions. In attempting to check the materials by date, the conclusion turns out to be quite surprising. In this way, highly-diversified or very detailed material covering a narrow thematic scope, or even material not substantively related to entrepreneurship, was obtained, thus losing the clarity of the image.

The citations of these works range from 77 to 16,366. Looking at the average citations (2,197) and the average citations after the rejection of extreme results (1,489), it turns out that these are valued works, discussed and used by researchers in their studies. While all 19 verified materials which contained the indicated keywords and were actually related to entrepreneurship had an appropriate quality, not all of the first 100 obtained texts had scientific quality. It was not a measure indicated in the search criteria, as the author did not even assume that texts that did not comply with the appropriate standards would appear in the search. This turned out to be a disadvantage of the study and showed that both design and further work with the literature should be kept with caution. The surprising thing about these low-quality papers was how they were fabricated (a non-existent journal with a very high IF added). Taking into account the efficiency, quantity and quality of the search of the compared databases, finding non-scientific works through Google Scholar, and less efficacious basic and advanced search possibilities that could prevent the indicated problems, the search relevance, both in the technical and substantive context, should be considered as not high, but relatively good.

How entrepreneurship is perceived in research and teaching materials determines the further perception of this phenomenon among readers and users of chosen source of knowledge about entrepreneurship. The variety of disciplines dealing with the issue of entrepreneurship should translate into more frequent exploration of this phenomenon in the works from different perspectives and emphasize the importance of intro and multi-disciplinarity in shaping a separate discipline devoted to entrepreneurship. Therefore, it is very important to check from which disciplines readers can familiarize themselves with the discussed issue, and whether the available literature emphasizes the variety of approaches used.

In the analyzed works, it turned out that economics dominates, and management rather complements the discussed content. Sometimes the approaches presented by the authors of individual works very subtly emphasized one of the disciplines more strongly, so this division can be described as difficult to assess. This is based on the author’s subjective feelings based on various perspectives of entrepreneurship presented in point 2 of this paper. At the same time, the chance to get acquainted with the broader context of entrepreneurship is satisfactory; the
search includes mainly content combining several disciplines, most often including economics with management, but also sociology or psychology. The multi-aspect nature of entrepreneurship could be credibly noticed. The hypothesis that the entrepreneurship phenomenon will be perceived mainly through the prism of economics, was confirmed enough.

The greatest difficulty was to recognize whether the analyzed works are more conceptual or empirical, because the boundaries are blurring. Nowadays, it seems that the combination of these two methods gains the most followers. Problems also appeared in the case of collective works, based on an attempt to select a holistic image of the entire monograph, not only the evaluation of individual articles.

In fact, all the works, apart from the reports, contained a conceptual background. They were based on an analysis of the available literature, with devoted a significant part of the work to descriptions of the conceptual structure and the theoretical framework used so far, mainly due to the lack of agreement in to the definition of entrepreneurship and general conceptual framework. It is logical that the articles contained a conceptual approach, as authors are required to describe such a framework, whether their work is ultimately empirical or conceptual or even theoretical. This can be a vicious cycle; as Hambrick (Hambrick, 2007) noted and Shapira (Shapira, 2011) analyzed, authors are required to contribute to the theory from each submitted article, thus hindering progress. Ultimately, it was assessed that in almost all materials, a literature review was prepared, some had features or a strongly described conceptual framework, and the concepts supported a strictly empirical approach in the case of nine empirical studies. On this basis, it is concluded that, contrary to previous suspicions, the conceptual approach is slightly more dominant. It is worth emphasizing the difficulty of making such an assessment at all. What is more, research, despite its nature, often does not have sufficiently accurately described research methods, despite its considerable length, in which such information could still be included. No research hypothesis (which some scientists indicate as the basis of the research) was formulated in any of the studies indicated. The literature review, analysis and criticism were the most frequently performed.

5. Conclusions

This article, to better understand the perspective of entrepreneurship as seen using Google Scholar and popular scientific databases/search engines were compared, and articles about entrepreneurship were reviewed. The effectiveness and relevance of content searches in Google Scholar were assessed positively, especially in the context of the capacity and availability of various scientific materials. According to the literature analysis, there are some evidence of a strong dominance
of the economics approach, a slight lead of conceptual work, and a constant focus on defining.

It can be indicated that entrepreneurship in scientific works and teaching materials obtained in the analyzed source is perceived in various ways, indicating the intra- or multidisciplinary nature of the phenomenon. The definitions and approaches used in research about entrepreneurship, presented from various perspectives, allow Google Scholar users to broaden their horizons not only with classic, economic approaches. It is also worth emphasizing the approach of the authors of the analyzed works themselves, the fact that they do not limit themselves to one chosen approach, but perceive the need to broaden the research perspective. It is, therefore, a positive development.

It should be emphasized that lack of universal open access to the latest research on entrepreneurship and its significant dispersion into many fields of science limits perception, favors research centers with better funding, and ultimately slows down the emergence of a new field.

Taking into account the growing popularity of the subject of entrepreneurship, the demand for economic knowledge and the limitations accompanying Internet users trying to gain verified knowledge, it is worth taking care of popularizing scientific databases/search engines, and familiarizing oneself with the results of the research in this field. It is advisable to extend the research about obtaining economic bibliography to the area of the search algorithm.

There is also a visible need for undertaking further attempts to deepen the topic and look for opportunities for cooperation in extending the analysis in the interdisciplinary context among representatives of other fields of science. Therefore, this work can be treated as a contribution to the further analysis of the discussed, important issue of searching for knowledge about entrepreneurship.

References


### 7. Appendix


