

## **THE EVOLUTION OF THE PERFORMANCE CONCEPT – A BIBLIOMETRIC ANALYSIS**

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### **Abstract:**

The main objective of the study is to research the evolution of the concept of performance, through the lens of definitions given since 1957 until today. Also, the research proposes a performance analysis from a general approach to a financial approach. Currently, a great significance is represented by the existing performance at the level of the companies, practically any company has as its goal the obtaining of profit, and within a profitable company we are talking about the performance of the companies. At the end of this article, I performed a bibliometric analysis that aimed to identify scientific works that address the theme of "the evolution of the concept of performance", using the VOS Viewer program. So, as we identified in the Web of Science Core Collection platform, by selecting the areas of interest Business Finance, Business, Economics and Management, a number of 697 articles written between 1999 and 2023 resulted. The importance of the theme began to grow starting with year 2007, and since 2010 it has been written constantly until now, but in 2020 the most articles were written on the analyzed topic. Depending on the country of origin of the published articles, most articles were published by researchers from the USA, followed by England, Spain, Italy and Romania. Finally, we analyzed the fields of journals in which the most articles on the chosen topic were published, and last but not least, we analyzed the network visualization for the co-occurrence of keywords.

**Keywords:** Performance concept evolution, bibliometric analysis, Web of Science Core Collection, VOSviewer.

**JEL Classification:** M41, M40, M21

### **1.Introduction**

From the analysis of the specialized literature, it can be seen that there is no unified vision on the concept of performance, not even from the point of view of a general understanding, even more so from the financial point of view.

This study can be a starting point for researchers interested in the evolution of the concept of performance over time and implicitly in an analysis of the specialized literature. The objectives of the work are:

1. Presentation of the evolution of the concept of performance over time until now;
2. Carrying out a bibliometric analysis that aims to identify works from specialized literature.

It will be noted that in the last decades the interest of researchers and practitioners in studying the performance of companies and implicitly the indicators that measure performance has increased.

The bibliometric analysis proposes an identification of the scientific works that address the theme of "the evolution of the concept of performance". The methodology used in performing the bibliometric analysis and its interpretation was presented.

### **2. Evolution of the concept of performance. Review of specialized literature.**

Jianu I. (2007) presented the origins of the word performance as being of Latin origin, but the meaning of *cuva* comes from English. Similar words are "performare" in Latin, and "to perform" and "performance" in English. By the Latin word "performance" it can be understood to fully give form to a thing. The verb "to perform" in English means to do something regularly, to execute. For example, in concluding a contract, the moment of concluding the contract is important, but especially the execution of the contract. Another example could be the production of a company, since within the production there must be a certain continuity, both at the product level to get from the raw material to the final product, and at the company level where the performance exists if the production it is continuous and does not interrupt the activity. By the noun "performance" we can understand the achievement of something, an act or the way in which an organization achieves its objectives that have been proposed to it. For example, I believe that the goal of any company is to achieve performance, but to achieve this goal, it is important not only the final goal, but also the correct and efficient use of resources, correct management of expenses, labor productivity, quality management, marketing, etc.

As a general understanding, the term performance began to be used from the beginning of the 20th century in certain fields, reaching that nowadays the term is used in absolutely all fields. Gradually, the concept of performance began to be used in as many fields as possible, being used mainly in the economic field. Some authors such as (Debiens, 1988; Burguignon, 1995, Lebas, 1995) approached a general understanding of the concept of performance. They defined performance as: "the level of achievement of objectives".

Other authors have defined performance in a more complex sense, thus moving to a financial sense. Jianu (2007) presents a series of definitions and performance assessment criteria given in the period 1957-1979:

- Bennis (1962) establishes the following criteria for assessing performance: adaptability, capacity, sensitivity.
- Caplow (1964) appreciates performance taking into account the following criteria: stability, achievement, integration.
- Katz and Kahn (1966), in turn, define performance at the level of an organization as maximizing the income that the enterprise can obtain using effective and efficient means, that is, economic and technical, but also with the help of political means. These authors evaluate performance according to the following criteria: survival, growth, environmental control.
- Yachtman and Seashore (1967) define performance as the company's ability to exploit the environment to acquire resources necessary for its operation. These authors believe that the criteria used to assess performance are: production costs, turnover, productivity.
- Friedlander and Pickle (1968) established the following criteria for assessing performance: employee satisfaction, profitability, company value.
- Mahoney and Weitzel (1969) defined performance taking into account efficient and productive action, and the criteria for assessing performance are: planning, trust, productivity, development, staff quality.
- Schein (1970) establishes the following criteria for assessing performance: creativity, communication, psychological commitment.
- Labrousse (1971) is known as one of the authors who gave a definition of enterprise performance. He argued that there is performance in the enterprise that knew how to place and exploit and that knew and knows a remarkable expansion; who knew how to face foreign competition; who knew how to measure his productive effort at the lowest costs, who knew how to maintain his own its expansion and which, through its industrial and managerial know-how, brings a real service to the community.
- Negandhi and Reiman (1973) consider the following criteria in assessing

performance: staff satisfaction, hiring new employees, staff stability, labor force utilization, net profit, sales growth.

- Harrisson (1974) defines performance as the end result of the application of effort.
- Child (1974) establishes the following criteria for assessing performance: profitability, growth.
- Shashua and Goldschmidt (1974) were the first to have brought to the fore a model of financial performance of the enterprise taking into account criteria such as: profitability shares, return on capital, profit margin, operating capital ratio, activity ratio. These indicators are indicators that measure the size of the company's performance. The first two indicators are indicators of profitability, which indicate the performance of the enterprise. The last three indicators are financial indicators that show that the company's position is the result of current and past performance.
- Klein (1976) appreciates the company's performance through: the increase in added value, the increase in immobilized assets, the return on capital employed, the coverage of operating needs from the working capital, the term debt relative to the self-financing capacity.
- Lorino (1995) defined performance as "everything that contributes to the improvement of the value-cost couple.
- Lungu (2006) kept the definition already given in 1995, when he defined performance as "everything that contributes to the improvement of the value-cost couple.
- Jianu (2006), Albu & Albu (2007), Mathews (2007) Danzinger (2007), defined performance as "creating wealth, value in the organization".

Lebas, (1995) gives the following definition "performance represents the set of elementary logical stages of action, from intention to result"

A. Bourguignon (2000) defines performance both at the level of an enterprise and at the individual level: "those who achieve their goals are successful"

J. M. Stern, J.S. Shiely and I. Ross (2001) define performance as "an unstable level of an enterprise's potential, obtained as a result of the optimization of the value-cost relationship and which makes the enterprise competitive in certain strategic sectors."According to Nicolae Felegă (2002), performance is defined by the users of accounting information according to the specific purpose of each one, and should not be sought only in the profit and loss account. Citing the opinion of Professor Feleaga, Professor Ion Stancu states "the name of financial performance identified by the profit and loss account is overbid"

According to E. Reynaud (2003), it defines the notion of the global performance of the enterprise which is given by the totality of the economic, social and environmental performances. This author states that performance appears as a result of the financial results obtained by the enterprise.

G. Lavalette and M. Niculescu (2003), defines performance as "achieving organizational objectives regardless of their nature and variety"

P. Lorino (2003) defines performance as "all that, and only that, contributes to the achievement of the strategic objectives" of the enterprise, as well as "all that, and only that, contributes to improving the value-cost couple, and not only what contributes to the reduction of the cost or the increase of the value"

According to Niculescu M. (2003) performance is based on the notion of comparison. In the economic field, there are a variety of definitions given to the concept of performance due to the fact that this concept is defined differently depending on the user performance information. Current and potential investors perceive their performance in terms of return on investment, of course managers are oriented to the overall performance of the organization they lead, employees perceive through performance the profitability and stability of the workplace and creditors show interest in the organization's stability. According to Niculescu M. (2003), performance measurement is "the process that

allows linking an abstract concept to empirical indicators". However, the perception of performance is different depending on the specific interests of each one. Performance measurement is a necessary condition to ensure the progress of an entity, but not a sufficient one. Progress that is not measured does not exist. But performance measurement makes success recurring as it generates action and sustainable development.

Nicolescu, O., Verboncu, I. (2007), define performance through the prism of the company's objectives, starting from the analysis of the company as a "group of people who carry out common activities aimed at achieving one or some objectives" R. Tannenbaum and H. Shimdt (2009) define performance as "the degree to which an organization, as a social system, with certain resources and means, achieves its objectives" Considering the development of the world economy, Alazard and Separi believe that performance must be seen as a global vision. Global performance includes economic, social and environmental aspects and, in this context, effectiveness and efficiency receive new dimensions, both quantitative and qualitative. For Reynaud (2003) and Baret (2006) global performance represents the aggregation of economic, social and environmental performance, and for Germain and Trebucq global performance is formed by the meeting of financial performance, social performance and societal performance. So that currently global performance brings together the three pillars of the term sustainable development, namely: economic development, social development and environmental protection.

Jianu I. (2007) defines performance in terms of a state of competitiveness of the enterprise that ensures its sustainable presence on the market. Performance is an indicator that appears as a result of meeting strategic objectives. This author offers not only a definition for the concept of financial performance, but also the performing enterprise, which he defines as the enterprise that satisfies customers, creates value for shareholders, that takes into account the opinion of its employees and that respects the natural environment.

Siminică M. (2008:107) defines performance taking into account the degree to which an enterprise manages to satisfy the requirements of the internal environment and the external environment, through an optimal combination of effectiveness and efficiency. According to Petrescu S. (2008), value creation at the company level is achieved when it obtains a return on the capital invested in assets higher than the cost of the resources mobilized to finance them.

Bătrâncea I. (2010:141) appreciates that the performance indicators must help to appreciate the economic value, the creation of value and the potential for future earnings. Bugle Al. (2011) appreciate that once the performance is analyzed, assessments can be made on the formation of the results of the activity and on the correlation with its financial structure, liquidity and solvency.

In the view of Vasilescu L. (2015), indicators such as the rate of economic return on assets or net profit per share are used to measure performance in a large number of companies, although these indicators are not theoretically correlated with value creation. Thus, appropriate financial ratios should be used to reflect value creation as well as modern indicators within value creation management.

From the analysis of the definitions mentioned above, it can be noted that indeed the opinions regarding the definition of the concept of performance are very vast, however, the diversity of opinions is given by their evolution over time in society, against the background of technical-scientific revolutions and world economic globalization moving towards new cycles of economic development with no requirements in terms of reaching the performance levels of the economic entity. The modern management of organizations is dominated by two concepts: performance and value.

Therefore, the modern management of organizations is dominated by two concepts: performance and value.

According to Petrescu S. (2013), in defining the concept of performance and the use of the

terms effectiveness, efficiency and economy, one will start from the presentation of the enterprise that consumes resources and creates goods and services in a systemic view based on the input-output relationship, corresponding to the phases supply-production-sale economic circuit.

According to Balteş N., Vasîu D. (2015), financial performance is frequently associated with the notions of maximization, efficiency, productivity or effect. In this concept, the assessment criteria of financial performance refer to productivity, flexibility, adaptability, capacity, sensitivity, achievement, growth, turnover, production costs, productivity, profitability, etc.

The definition of the concept of performance through the prism of some criteria can be found in table no.1

Table no. 1 – Defining the concept of performance through criteria

Author	Criteria by which performance is defined over different periods of time				
Niculescu M. (2003:49)	1960-1970	1970-1980	1980-1990	1990-2001	after 2001
	turnover, total assets	net profit, earnings per share, PER	liquidity, cash flow	profitability through cash flow of investments, economic added value, market added value	value creation
Nistor I. Pintea M.O., (2011)	1950 – 1980		1980 - 1990	1995 – 2000	after 2000
	productivity, capacity, environmental production costs	adaptability, turnover, control,	the level of achievement of the objectives	the efficiency and effectiveness of the economic entity	value creation

Source: own contribution

### 3. Bibliometric analysis on the Evolution of the concept of performance.

Bibliometric analysis can be performed using a database. To access the database, we used the Web of Science Core Collection platform

We carried out a bibliometric analysis of the specialized literature on the topic "evolution of the concept of performance" using the "all fields" search type.

In this sense, we performed the search for the keywords in the phrase "evolution of the concept of performance", the search being repeated in all the fields of the entire database, not being filtered by variants such as: topic, title, author, publication title, etc. We applied a filter to the Web of Science Categories section, where we selected the following fields: Business Finance, Business, Economics and Management. The search for articles in the bibliometric data source was carried out on 21.03.2024. After applying this filter, a number of 706 articles resulted.

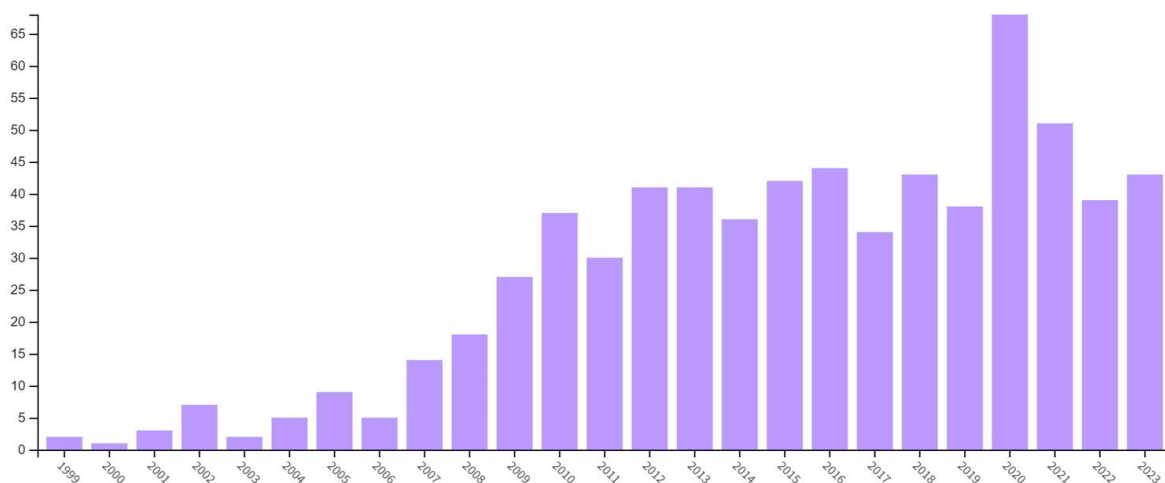
Another filter I selected was the year of publication, thus I chose to take into account all the articles in my analysis except those published this year, namely 2024, since it is the current year and it is not fair to interpret data from other years with data from the current year. Following the search in the bibliometric data source applying the specified filtering, a number of 697 articles with the following keywords: "the evolution of the concept of performance" resulted. The 697 articles belong to one of the fields of Business Finance, Business, Economics and Management and are published starting from the first year in which articles were written on that topic and until 2023 inclusive.

### 3.1. Number of articles published per year on the topic "evolution of the concept of performance" using the search type "all fields"

In figure no. 1 it can be seen that most articles were written in 2020, which is the year in which the greatest research interest was registered on the topic "evolution of the concept of performance" using the "all fields" search type. At the opposite pole is the year 2000, the year in which the fewest articles on the analyzed topic were published. In conclusion, I could say that in the period 1999-2006 the number of published articles was quite small, and starting from 2007 the interest in publishing articles gradually increased, following that in the period 2010-2023 the number of published articles was more or less constant, and the peak being recorded in 2020.

Figure no. 1- Number of articles published per year on the topic "evolution of the concept of performance" using the "all fields" search type.

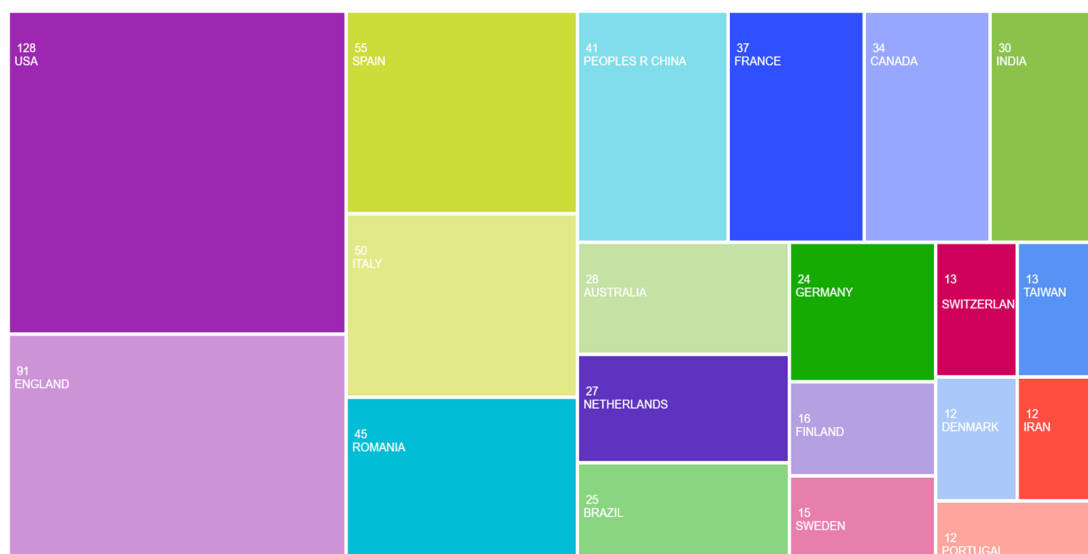
Source: Web of Science Core Collection



### 3.2. Number of articles published on the topic "evolution of the concept of performance" using the search type "all fields", according to the country where the authors of the published articles come from

Most articles published on this topic were published by researchers from the USA (128 articles, i.e. 18,364%), followed by England (91 articles, i.e. 13,056%), then Spain (55 articles, i.e. 7,891%). then Italy (50 articles, i.e. 7,174%), then Romania (45 articles, i.e. 6,456%), then followed by other countries as can be seen from the graph attached below (graph containing the first 20 records out of a total of 78 records).

Figure no. 2 - Number of articles published on the topic "evolution of the concept of performance" using the "all fields" search type, depending on the country where the authors of the published articles come from



Source: Web of Science Core Collection

### 3.3. Classification according to the domain of the journal in which the articles were published.

Most articles were published in journals belonging to the field of Management (449 articles, i.e. 64.419%), then belonging to the field of Business (308 articles, i.e. 44.189%), then Economics (121 articles, i.e. 17.360, then the number of articles decreases significantly for articles in the other fields (Business Finance 38 articles, i.e. 5.452%). In conclusion, on the topic "performance concept evolution" using the "all fields" search type, most articles were published in journals belonging to the fields: Management, Business, Economics, Business Finance, with a much smaller number of articles being published in journals belonging to other fields.

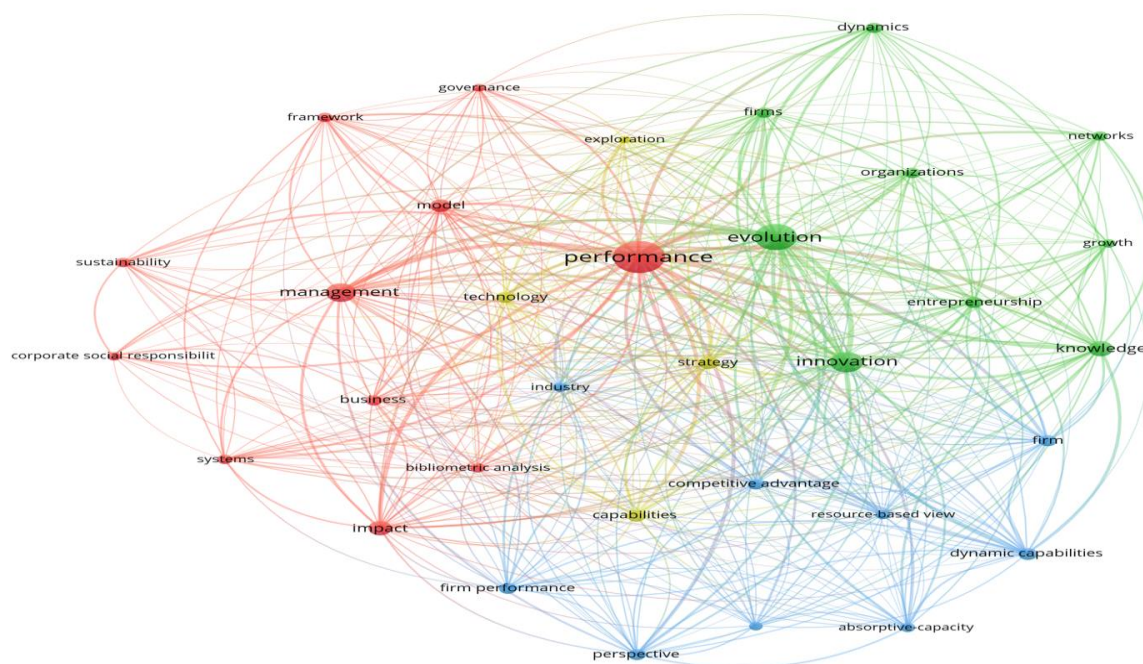
Figure 3 shows the visualization of the network for the co-occurrence of keywords using the program VOSviewer version 1.6.20. VOSviewer is a software used for the creation and visualization of bibliometric networks. In the analysis performed on the analyzed sample, we used the co-occurrence network for a minimum number of 20 occurrences of the keywords. From the first analysis of the network for co-occurrences, after the filters set above, it can be seen that 33 items were recorded, which were grouped into 4 clusters, which generated 455 connections, also generating a total strength of links of 2686. The keywords were grouped into 4 clusters, each cluster being represented by different colors.

The keywords grouped in cluster 1 are: bibliometric analysis, business, corporate social responsibility, framework, governance, impact, management, model, performance, sustainability, systems. In total cluster 1 of red color has 11 items (articles). The keywords grouped in cluster 2 are: dynamics, entrepreneurship, evolution, firms, growth, innovation, knowledge, networks, organizations. In total cluster 2 of green color has 9 items (articles).

The keywords grouped in cluster 3 are: absorptive capacity, competitive advantage, dynamic capabilities, firm, firm performance, industry, knowledge management, perspective, resource-based view. In total cluster 3 of blue color has 9 items (articles). The keywords grouped in cluster 4 are: capabilities, exploration, strategy, technology. In total cluster 4 of mustard yellow color has 4 items (items).

The keywords grouped in clusters can be viewed in figure no. 3.

Figure no. 3 – Correlation of keywords with the theme “performance concept evolution” – Network visualization for co-occurrence of keywords



Source: Web of Science Core Collection, own processing in VOSviewer version 1.6.20

The following results from figure no. 3:

Within cluster 1, links are formed from the keyword "performance" to terms such as: bibliometric analysis, business, corporate social responsibility, framework, governance, impact, management, model, performance, sustainability, systems. In order to reach the performance of a company, a correct risk management is needed, based on which there must be a sustainable development in conditions of social-corporate responsibility that leads to obtaining profit and automatically to the existence of a financial performance. Within cluster 2, from the word "evolution" there are links to keywords such as: dynamics, entrepreneurship, evolution, companies, growth, innovation, knowledge, networks, organizations. From these links it can be seen that for a company to evolve it needs strong entrepreneurship, innovation, good organization and constant growth. In cluster 3, links are created between keywords such as: absorptive capacity, competitive advantage, dynamic capabilities, firm, firm performance, industry, knowledge management, perspective, resource-based view. The links are also created here at the level of the word company, in which we must direct a good management, the necessary resources, knowledge, capabilities and a competitive environment. At the level of cluster 4, links are created around the word strategy. About the same intensity is the creation of links around the words technology, exploration and capabilities. From these links between keywords it can be deduced that equally important is the strategy of a company, the technology that must advance, the continuous exploration as well as the ability to maintain the performance at the level of the company.

#### 4. Conclusions

The specialized literature shows that there is no unified vision on the concept of performance, not even from the point of view of a general understanding, even more so from the financial point of view.

Taking into account the definition of the concept of performance over time, until the 80s



practitioners used performance assessment criteria, such as: productivity, adaptability, capacity, turnover, environmental control, production costs, etc. Between the 80s and the 90s, performance was defined according to the level of achievement of objectives. Between 1995 and 2000, performance was defined according to the efficiency and effectiveness of the economic entity. And, from the 2000s until now, performance is defined taking into account value creation.

Considering the development of the world economy, the conclusion was reached that performance must be seen as a global vision. So that currently global performance brings together the three pillars of the term sustainable development, namely: economic development, social development and environmental protection.

As future approaches absolutely necessary for the continuity of the analysis would be "performance measurement and analysis of the indicators that best reflect the economic performance", and not least the non-financial performance approach.

Regarding the bibliometric analysis, it was carried out on the specialized literature on the topic of "the evolution of the concept of performance" As we identified in the Web of Science Core Collection platform, selecting the areas of interest Business Finance, Business, Economics and Management, resulted a number of 697 articles written between 1999 and 2023. The importance of the topic began to grow starting from 2007, and starting from 2010 it was written constantly until now, but in 2020 the most articles were written on the analyzed topic. Depending on the country of origin of the published articles, most articles were published by researchers from the USA, followed by England, Spain, Italy and Romania.

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The paper concludes with keyword co-occurrence network visualization, where the intensity of links between keywords was analyzed. From the analysis of the correlation of the key words with the theme "evolution of the concept of performance", the words that were most intensively found in the scientific documents result: performance, evolution, management, strategy. Around these keywords links are formed with other words, but not limited to: company, corporate social responsibility, productivity, adaptability, growth, innovation, knowledge, perspective, knowledge management, resources.

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