Journal of Namibian Studies, 35 S1 (2023): 4286-4304 ISSN: 2197-5523 (online)

The Libyan Center For Artificial Intelligence And Information Technology (LCAI) Project To Adopt Scientific Research Methodology And Bibliometric Measurements In Accordance With International Databases (Dbs) And Scopus Standards

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Abstract:

LCAI decided to supervise the scientific publishing of Libyan researchers in Scopus magazines, which requires the researcher to carefully prepare the scientific content to be of high quality, commensurate with the bibliographic databases (DBs) as the main destination for descriptive data for publications in Libya and the world, which makes our commitment to bibliometric indicatorsused globally Whether for research evaluation practices or for performing tasks efficiently. This study deals with the importance of databases, provided that researchers are able to choose the most appropriate from the Web of Science (WoS) and Scopus as bibliographic databases, and to determine the quality standards that must be available in the methodology of scientific research and articles to be ableThe Center is approved by the support and publication .

keywords: Scientific research, research methodology, scientific articles, qualitative research, quantitative research The nature and steps of research preparation, methods and characteristics of scientific research, methods of statistical analysis, sources and references, artificial intelligence, search engines, effects and tools of citation evaluation and its indicators ·WoS; scoops; bibliographic , bibliometric databases; Content coverage.

1-Introduction:

(LCAI) adopts the principle of scientific research as a frame of reference for all scientific activities and focuses on creating better human behavior, as scientific research is the applied preparation of a specific topic, and thus works to investigate or investigate thoroughly through specific facts in one of the scientific disciplines [1], and therefore it is An effort to acquire new knowledge [1,2]. The role of publications, research and scientific articles has changed at the present time, and has included the most important fields, including the industrial and economic aspects, which are considered Growth priorities, funding resources were allocated, and policies to create employment opportunities for engineers, doctors, industrialists, faculty members, etc., based on the evaluation of their expertise, scientific production, and quality .

It has become the most important criterion [1-8]. With careful review of the scientific research submitted, LCAI provides additional services to the researcher, including the digital assistant service, the probability density prediction service, the speaking linguistic corrector, the vision supporter, and presenting the research to the detector of flaws in the preparation and design. LCAI also provides services, solutions and products to assist the Libyan researcher in various fields. The sectors apply the latest scientific research methodologies through artificial intelligence techniques by overcoming obstacles, preparing research steps and designing its methodology, in addition to solving complex problems and customizing artificial intelligence applications in order to create a positive impact and develop legislation for scientific innovation and improve research outcomes. We note in experimental research that theoretical analysis results from the methods that have been applied, and consists of a set of methods and equations in studies, as well as theoretical models, concepts, techniques, and stages of quantitative and qualitative importance ،Because bibliographic databases (DBs) are the main sources of metadata for a publication Citation metrics,have also increased in importance [9]. Recently, the Web of Science (WoS) has become The Scopus network is the most comprehensive bibliographic database containing data sources for various purposes [10], and it is the most influential in peer-reviewed scientific journals, research evaluation, and bibliometric analyzes [11]. Therefore, it sheds light on the method and procedures used in preparing the research according to certain standards, so the problem of the study is solved through logical steps, which creates one of the elements of the research that helps to understand what can lead to good preparation and the arrangement of the processes that must be followed to obtain the results, so the researcher can to describe and analyze,It highlights the limitations, the detailed resources affecting hypotheses, and the formidable barriers to its technical and material capabilities ،

2- The effect of bibliometrics on the quality of research methodology:

LCAI's interest in evaluating research methodology has become necessary to keep pace with progress, as WoS was the only source of bibliographic data for more than 40 years, until 2004, when Scopus was launched by Elsevier [12]. Therefore, LCAI believes that there is a need for research with a methodology that is compatible with this framework, to achieve the main objective of the study As a result of this method, the visions of (LCAI) are realized, adopting a prominent study that succeeds in explaining some phenomena. Work has been done to accurately portray the new diversity; Sometimes the researcher can identify a specific frequency related to the research hypothesis, and be able to test the hypothesis and causality and find the relationship between the research elements according to the basic concepts. As in hypothesis testing, which is consistent with the requirements of the international database WoS and Scopus WoS [10,13], it is allowed For the researcher using the expert systems available at LCAI, he finds information that includes robotics, in addition to machine learning courses, neural networks, fuzzy logic, and finally natural language processing, and work on providing various artificial intelligence applications such as the Apple

SIRI assistant, google assistant ·Amazon Alexa assistant, · Microsoft Cortana assistant Talking Elsa application. As well as most of the elements that help the researcher make predictions and calculate probability density in applied research ·In view of the commitment of (LCAI), the main objective of its establishment is to contribute to the international directory for cataloging and raise the level of human knowledge globally, and to contribute to the international classification of scientific research on the basis of time, place, settings, and Limitations ·Which confirms that each research has its own characteristics and implications. For example, in basic research, the researcher cares about knowledge and often mentions instructions and formulates new theories to reach unknown facts, and he may not come up with complete solutions, but he works to motivate researchers to conduct more future studies. As for applied research, in which LCAI is increasingly interested, it is based on the need to solve problems related to disadvantages in a specific sector ·It highlights secondary data that represents multi-pronged answers. When the research is experimental, it can be conducted in stages, starting with an initial stage where data is abundant, analyzed and interpreted mathematically, and then hypotheses are tested ·This type of research has succeeded in developing laboratories through good design, with the aim of evaluating the outputs later in light of intuitive, comparative results. In the event that the researcher is interested in a specific type of information, the research is qualitative, as the researcher studies human behavior and focuses on behavioral patterns. He is interested in drawing pictures and testing perception. And if the researcher is polarized to measure a phenomenon quantitatively, then the research is quantitative, taking into account the qualitative conditions with all their components, for example health and scientific. Then followed by the process of statistical analysis. It mainly depends on the exact details using survey or questionnaire technology. If the researcher deals with real and descriptive data, then the research is descriptive and he can specify its details and determine the relationship between the variables directly, so the researcher can interpret the events retrospectively. Regardless of the aforementioned scientific diversity, the LCAI contains many other classifications recognized by research centers at the international level. For example, longitudinal research spread across many universities can be dealt with, noting changes in time rates In historical research, events must be narrated and the relationship between image data, documents, and messages known. Parameters and variables are taken into account at the same time. And since (LCAI) is interested in simulation and sets certain principles for its scientific research methodology to develop laboratories and laboratories, and also aspires to establish some research projects that depend on computer programming, since its inception it works in this context and contributes to creating an industrial environment that is very similar to the traditional environment, as in LaboratoriesAnd centers are created for all types of research and adapted according to need, which is a system used in scientific research, and there are many sources that confirm the validity of that approach (6) . Research is considered necessary in institutions, organizations and universities, regardless of the different activities they carry out. Perhaps the reason for the interest in evaluation is that scientific research discovers the continuous impact at all levels and activities, whether they are responsible for policies and budgets in terms of planning and implementation and in industry where development and marketingAll of these goals can be achieved through scientific research. Also, through scientific research, the relations between the different organizations are organized in order to make their official decisions later. This is what drives LCAI to support researchers from all disciplines to enroll in scientific courses that raise their level and competencies to benefit as much as possible from real artificial intelligence programs and to adhere to the research methodology according to the type of research and the study problem that the researcher addresses. For example, courses on the types of artificial intelligence algorithms that help in implementing applied research, including: classification algorithms, Regression as well Assembly 6/16. The center also offers intensive courses in the programming language used in artificial intelligence (the R programming language), which allows performing statistical calculations, numerical analysis, the use of inference, neural networks, and machine learning in general. In the fields of financial research, biology research, sociology studies or medical research, it is one of the main standard languages, in addition to language courses - Javascript, HTML/CSS, SQL, Python, Java, C#, C,++ And the language pHp. The Libyan researcher is also allowed to use one of the databases due to their high prices, as it is rare for an institution to be able to subscribe to both [14, 15] and ensure their accuracy [27], as a result of the excessive use of metadata for the purposes of publication and impact indicators, because databases Relevant bibliographic data for almost all fields of knowledge in the academic community [11,26]. In addition, because Due to the outdated information, only results described in the study covering the past five years can be discussed ،The structure of the study is divided into several main sections and its organization. In the first part, the researcher deals with a brief background on bibliographic databases, while the second part provides an overview of the latest studies that compare according to WoS and Scopus ،The main results and facts described in the literature are discussed in Section III, They are grouped by the features of the databases described (content coverage, quality, additional information functionality, errors, inconsistencies, search performance, and data accessibility,(Part IV contains a brief description of the most common impact indicators presented in WoS and Scopus, as well as general guidelines for choosing the most appropriate metrics Section Five discusses the main conceptual problems in bibliometric practices, highlighting ...Key concerns, application biases, and limitations. Although these topics had been It was discussed in the literature, so the author should give the study the form of generalization in the text through the discussion part, followed by a summary of the conclusions, with an explanation of the limitations that faced the study and writing ideas and recommendations for future studies [28, 29) ،Although Scopus covers most of the researcher's requirements, the need may prompt many to search within The content of many specialized databases, such as Embase, Compendex, and World such as Fluidex, Geobase, Biobase, and Medline [30], since their content is integrated and Equally accessible. Beta versions of Google Scholar (GS) DB also appeared in 2004 [31 ،[The main advantage of this database is that it does not require subscription and is all available to Internet users [23,31–33]. But the only drawback of GS is its susceptibility to data falsification [34,35,36]. However, due to its introduction relatively recently Little is known regarding its comprehensiveness and validity as a reliable bibliography [32,37–40]. Therefore, dimensions will also not be discussed in this paper ،The LCAI works to give researchers information about the most important free and relatively new products, such as Microsoft Academic, Crossword, ResearchGate, OpenCitations, etc. [32,39-41]. Although valid It is still in doubt. Meanwhile, there are other highly specialized companies such as PubMed, Medline, which makes them unsuitable for more extensive tasks, in particular, for analysis and evaluation [42,43]. So, The two main databases are still – WoS and Scopus , [26,40,49,51]not forgetting the available Russian scientific production [52], and comparisons are made when bibliographic databases are actively implemented. In LCAI, bibliometric indicators are determined based on documents that are affected by them when choosing a data source [55, 32, 56, 27, 57]. Data quality is also very important, especially in performing bibliometric measurements and analyzes [4,40]. Hence, the general frequencies and types of errors that occur in both It falls within the evaluation of the study presented by the researcher to determine the seriousness of his commitment to the imposed methodology after extensively presenting the research to databases [61,62, 63, 64], citation information and links [40,65,66], and testing incorrect or missing DOI numbers from Research [53,67-69], also accuracy of duplicate entries [30], and inconsistency testing .Publication dates are in references [53]. To ensure scientific competencies regarding the performance of authors and those assigned to conduct research from individual institutions, the LCAI focuses on: The accuracy and applicability of the author's information as it is in the global context [70,71,72,73], according to the exact information we get from WoS [74–78] and Scopus (79,80.)Thus, even scientific journals can be classified in WoS [81]. Which Criteria for selecting book publishers included in data sources [82], and many other studies, research and projects of a limited nature [27,43,83,84]. The methodologies adopted by the LCAI address research and studies in the natural sciences, medicine, health, and technology, while the social sciences and humanities (SSH) are underrepresented even in the WoS and Scopus databases [40,49,53,56]. LCAI's interests also include evaluating conference papers, just as databases are required to classify scientific papers [86, 87, 26, 46]. Therefore, types of sources other than journals should be covered They can also be evaluated, as they significantly influence the suitability of a database for a given task (26,44,88). LCAI aspires to joint cooperation with

Intellectual Property Organization (WIPO), the association of intellectual property owners(IPO), the European Patent Office (EPO), and the United States Patent and Trademark Office(USPTO), and Japan Patent Office (JPO) [89 .[The goal is to identify and create a patent Relationships that support researchers with the great technological progress in the world today and the economic impacts of inventions and innovations [99], resulting from scientific research projects [98,101,102]. There are many institutions that the Libyan Center works to deal with, such as the Chinese Trademark and Patent Office. (CTPO) [98] ,As well as information about FI research funding ,[103 ,77]LCAI also helps researchers reach the Major Journal List (MJL)And the landing web page (115,114 .)

3-Conclusions and recommendations:

Through this paper, we notice that LCAI decides to prepare the scientific research in steps that begin with the title And the introduction, then the problem of the study, then previous studies, and finally the research methodology recognized by the main text, and we will point out that methodology LCAI approved For applied research, it should include comparisons with regression models, where clustering methods, regression analysis, measures of dispersion, regression plotting, nonlinear regression, Bayesian model, etc.; Then comes the classification, it is necessary to use the nearest neighbor K, Bayesian networks, which are the main component of linear analysis . It is clear from the foregoing that when there is no strong desire to practice a particular methodology, the matter is already clear. He will notice weaknesses in the text in addition to the lack of communication or coherence in the structural design and the apparent haphazardness in the implementation of the study plan. In addition, we will find a delay in following up on the evaluation of the basic orientations of the study and intentionally replacing them with other materials, which indicates the unwillingness to follow a fixed methodology. These standards that have been developed for the methodology target all scientific disciplines, especially artificial intelligence engineers who are qualified for master's and doctoral programs in academies and universities, and every researcher who conducts a scientific study to develop and design systems and applications based on artificial intelligence technologies, and research that focuses on building models.

and improve it. Intelligent robotics and its applications, such as the development of intelligent robots, machine learning systems, and scientific research for other smart applications that rely on artificial intelligence. With the aim of providing researchers from all disciplines with additional tools, the purpose of which is to develop research in its exemplary form in accordance with academic and professional requirements that serve all applied and humanitarian sectors as well, which are represented inReading tools, Cspace, and collection tools, and these tools are an example of how to exploit the capabilities of artificial intelligence to facilitate and improve scientific research. But we must always remember that these tools cannot replace the human mind, understanding meanings, or creating knowledge. Rather, they are just tools that support us in some tasks and increase our productivity and creativity. Therefore, the researcher must use it wisely and responsibly, and not trust it completely or rely on it exclusively. One of the requirements of the LCAI is that the researcher works independently according to the scientific accreditation controls, which reflects positively on the research itself and its compatibility with the international indexed directory, and thus contributes to the promotion of science and knowledge .Because the methodology imposed by the LCAI provides an automated interpretation of comparative data, adds quality to advanced procedures, and contributes to identifying sources of information and thus preparing scientific reports and articles, as well as managing project research from beginning to end, despite the necessity of the independence of the scientific researcher and working alone in solving a problem. Study, but the LCAI contributes to providing Bibliographic data sources and metrics, Web of Science (WoS) and Scopus databases (DBs(As the two main and most comprehensive sources of publication metadata and Impact indicators. Therefore, they serve as the main tools for a variety of tasks that the researcher must pay attention to in order to deal with his sources and work on Choosing the most reliable journals, whether in applied sciences or literature, or to track development in professional life so that he succeeds in bibliometrics on a scale that satisfies his ambition to have his scientific research accredited in the LCAI, and also ensure that Analytics and research evaluation practices at all possible levels before handing it over to the competent authorities, because the databases that LCAI deals with are the most internationally reliable and are expensive and subscription-based data sources, and institutions often have to choose Between them. Despite the fact that WoS and Scopus databases have been compared, for 15 years, the bibliometrics and academic community has not come to a conclusion between them. On the other hand, LCAI expects that the international contribution, partnership and peer will continuously improve both databases because of the great service they provide to the international community on the humanitarian, scientific and economic levels. A list on the Internet that works every moment on communication, the transfer of ideas, and joint work for development and prosperity in the world .Disseminating these ideas and proposals that set specific standards for scientific research methodologies and developing general frameworks and legislation that the researcher is obligated to follow and achieve certain requirements and standards will support development and confirm the limitationsof citation in order to advance science and push to open horizons of cooperation and partnership between scientific centers around the world.

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