

*The Covid 19 crisis and its impact on the scientific
publishing of research professors:
A field study at the Department of Information, Communication
and Library Science at the University of Guelma*

أزمة كوفيد 19 وأثرها على النشر العلمي للأساتذة الباحثين:
دراسة ميدانية بقسم علوم الإعلام والاتصال وعلم المكتبات
بجامعة قلمة

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Received: 01/02/2022 Accepted :12/04/2023 Published :08/06/2023

Abstract:

This study aims to highlight the impact of the Covid-19 crisis on the scientific publication of the professors of the Department of Information, Communication and Library Science at the University of Guelma. The population concerned by the field study consists of 34 professors, and we relied on the descriptive approach with the questionnaire as information collection tool and the SPSS program for data analysis.

The study found that the suspension of the study and the application of home quarantine procedures was not a sufficient incentive for the university professor to practice scientific publishing. The social and psychological conditions he is experiencing, especially in light of the health crisis, have negatively affected his orientation towards scientific publishing.

Key words: Covid19 crisis; Scientific publishing; Research professors; Impact; University of Guelma

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الملخص:

تهدف هذه الدراسة إلى إبراز أثر أزمة كوفيد 19 على النشر العلمي لأساتذة قسم علم الإعلام والاتصال وعلم المكتبات بجامعة 08 ماي 1945 بقالة. وتتكون عينة الدراسة من 34 أستاذًا، واعتمدنا على المنهج الوصفي واستخدمنا أداة الاستبيان لجمع المعلومات وحزمة SPSS لتحليل البيانات. وتوصلت الدراسة إلى أنه رغم تعليق الدراسة وتطبيق إجراءات الحجر المنزلي إلا أن ذلك لم يكن محفزًا كافيًا بالنسبة للأستاذ الجامعي من أجل ممارسة النشر العلمي. كما أن الظروف الاجتماعية والنفسية التي يعيشها خصوصًا في ظل الأزمة الصحية أثرت سلبًا على توجهاته نحو النشر العلمي.

الكلمات المفتاحية: أزمة كوفيد 19؛ النشر العلمي؛ الأساتذة الباحثون، أثر، جامعة قالة.

1. Introduction

In light of the epidemic crisis Covid 19, the world becomes a platform that has welcomed a renewed era of overpowering variables at all levels; chiefly, communication and scientific publishing process that have undergone fundamental alterations. As a result to the aggregative global reality of the crisis, countries decided to suspend studies and various programmed scientific events; some of which were annulled and some were held in a virtual reality. However, health safety measures and distance between researchers and their work and study rest unstable and do not serve the academic side.

Under the pressure of these conditions, open access has remarkably retracted mainly when tremendous research intuitions concurred to make contents related to Covid 19 free and temporary although it was available on conditions. In the same line of thought, World Health Organization and government leaders have allowed all segments to access information so as to produce, increase and support scientific production, as well as rise the awareness of the epidemic Covid19 and trying to find solutions to this crisis.

Research professors of Guelma university in particular are considered as the prime mediator who searches for the information, produces it and then recommunicates it to the beneficiaries. Overshining light on the working conditions that must be created for students so they produce, use and redistribute information in order to serve the academic community. In contrast, this period provides no facility to support both production and publication. The aforementioned issue prompted us to figure out the impact of Covid19 crisis on the professors 'scientific production, taking professors of Guelma University as a sample to this study. The issue of the current study incarnates the following question:

Does the Covid 19 crisis affect the scientific production of research professors in the department of the department of information, communication and library science at the university of Guelma? Do research professors consider it as an opportunity or a crisis?

2. Hypothesis of the study

H1: There are statistical variances at the level of scientific publishing of the professors of the department of information, communication and library science at the university of Guelma, which are attributed to the personal variables represented in gender, job title, job experience.

H2: The effect of health safety measures of Covid19 (quarantine and suspension of studies) at the level of the scientific publication of the professors of the Department of Information, Communication and Library Science at the University of Guelma.

3. The significance of the study

The current study shapes the impact of health crisis of Covid 19 on scientific events and activities chiefly scientific publishing that has a great effect on knowledge and science development. Research communities have to transform this scientific distress to practice so as to serve the academic society in particular.

4. The aim of the study

The present study aims at headlining the effect of Covid 19 on scientific publishing of the professors of the department of information, communication and library science at the University of Guelma, through;

- Understanding the development of scientific publishing since the epidemic crisis COVID19.
- Knowing the factors that affect on scientific publishing.

5. Methodology

In order to achieve the aforementioned aims, a descriptive approach was used to come up with results that cover up the impact of Covid 19 on the scientific publishing of research professors of Guelma University.

a. Society and Sample:

Study population: Society is a group of vocabulary having the same characteristics of the present study. In the same line of thought, it becomes noticeable that society refers to the research professors at the University of Guelma.

b. Sample of the study:

The sample is a part of the study population having the same characteristics. Considering the large community size, lack of time, as well as the Covid 19 crisis; an intentional sample is represented by the faculty members of the Department of information, communication and library science at the University of Guelma, which numbered 34 professors.

c. Data collection tools:

Data were obtained through a comprehensive questionnaire so as to collect information from the respondents. The findings will be analyzed statistically using the SPSS system.

I. The theoretical part of the study

1. The scientific publishing

The means by which individuals engaged in academic research and creative endeavor inform their peers, formally or informally, of the work they are engaged in or have accomplished. Following a tradition that began with the Academy in ancient Athens, scholars communicate by writing monographs and journal articles for publication, presenting conference papers that may subsequently be published in proceedings and transactions, submitting reports in fulfillment of grant requirements, creating and maintaining Web sites for the academic community, and corresponding with peers via e-mail and electronic mailing lists. Broadly defined, the process includes not only the creation and dissemination of scholarly works but also evaluation of quality (peer review) and preservation for future use. One of the goals of academic libraries is to facilitate scholarly communication in all its forms.⁽¹⁾

2. Scientific publishing crises

Scientific publishing encountered many crises that formed a gap in scientific communication at many times and talk about the crises of scientific publishing before the COVID 19 crisis, leads us to talk about:

a. Serials crisis

The phrase “serials crisis” has been in use for more than a decade as shorthand for the rise in costs for academic journals and the inability of libraries to bring these costs under control. Price inflation for academic journals significantly exceeds the consumer price index.⁽²⁾

Between 1986 and 2003, the cost of scholarly serials grew 215% according to statistics collected by the Association of Research Libraries. In contrast, the rate of inflation for the same time period, as measured by the Consumer Price Index, grew at only 68%; additionally, there was a 138% increase in the number of serial titles. Consequently, the cost increase combined with the increase in the number of titles (even accounting for large increases in materials purchasing budgets) has resulted in a reduction in the number of serials purchased by academic institutions.⁽³⁾

b. permissions crisis

The permission crisis means that, even when they pay, libraries are hamstrung by licensing terms and software locks that prevent them from using electronic journals in the same full and free way that they may now use print journals. (In general, the pricing crisis applies to both print and electronic journals, while the permission crisis only applies to e-journals).⁽⁴⁾

c. The scientific publishing in ligh of covid crisis:

Under the pressure of a global health crisis, the argument for open access has sunk in. Following calls from the World Health Organization and government leaders, over 150 publishers, companies, and research institutions have agreed to temporarily make all content related to COVID-19 free to read, ensuring efforts to understand the virus can go forth undeterred.⁽⁵⁾

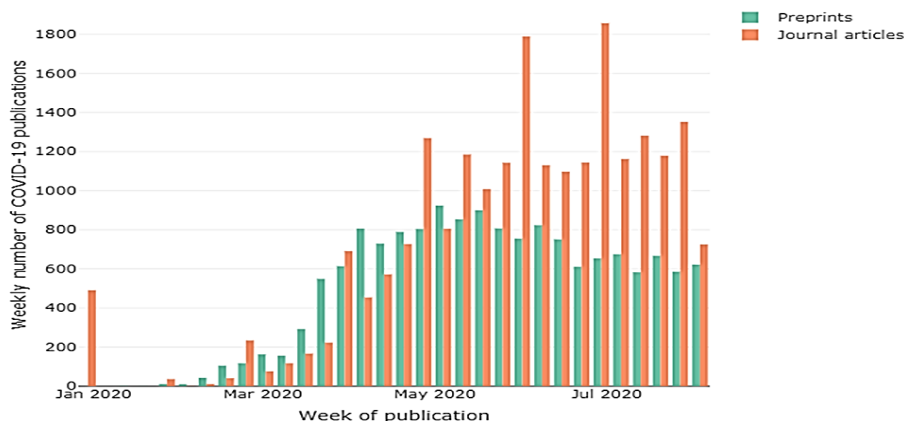
On 30 March 2020, UNESCO hosted an online meeting of representatives of science ministries of 122 countries to exchange views on the role of international cooperation in science and increased investment in the context of COVID-19. During the meeting, UNESCO Director-General Audrey Azoulay called on governments to reinforce scientific cooperation and integrate open science in their research programmes to prevent and mitigate global crises.⁽⁶⁾

During the first months of the year 2020, interest in scientific research increased, evidenced by the tremendous increases in the number of articles published in the most well-known scientific journals.

The interest in neurologic research concerning the COVID pandemic continues to be very high as illustrated by the enormous increase in the number of articles published or present online in the most prestigious scientific journals, from The Lancet, with more than 600 articles since April, to The New England Journal of Medicine, with more

than 190, to the neurologic journals such as European Neurology , the Journal of Neurology , the Journal of Neurological Sciences , and Neurological Sciences . When we checked Orphanet, on 20 June 2020, there were more than 23,000 articles related to COVID-19.⁽⁷⁾ The following figure shows the development of scientific publishing during the first months of 2020.

Fig (01): The development of scientific publication about the COVID 19 pandemic during the year 2020



Source: PARCIN, micheal,31/08/2020.

Field side of the study:

This part presents a detailed description of the methodology used in this study concerning its population, sample, the tools used in collecting and analyzing data and the used statistical methods, a prefunding description of the study tool, and the methods of statistical treatment that were relied upon in analyzing the results of the study and ensuring the validity of the hypotheses.

II. Methodological procedures for the study:

1. Study Population and Sample:

To examine the impact of COVID 19 on Scientific publishing, 34 forms have been distributed to all professors of the Department of Information, Communication and Library Science at the University of May 8, 1945 Guelma during the month of September 2020 via Google forms. 24 of those forms were retrieved and analyzed using the Spss package.

2. Data collection tool:

The data were obtained through a comprehensive questionnaire. This tool was originally divided into two sections: The first section contains data related to the personal characteristics of the members of the study population; namely; gender, job title, number of years of experience. The second section asked questions that helped in measuring the practices of university professors for scientific publishing in light of the Covid 19 crisis and the factors affecting it. This scale was used to measure the respondents' responses to the questionnaire's statements, as indicated in the following table.

Table 1. Triple Liker Scale

<i>Response</i>	<i>Agree</i>	<i>Neutral</i>	<i>Not agree</i>
Degree	3	2	1

The questionnaire was downloaded and analyzed through the nineteenth edition of SPSS. The statistical tools that were used are: percentages, frequencies, arithmetic means, and standard deviations. Spearman's correlation coefficient; Pearson correlation coefficient and Cronbach's Alpha.

Tool Validity and Stability

a. The tool's validity

The tool's validity was confirmed through discussing the questions by the researchers. Some phrases were changed and added, and others were reformulated until the questionnaire took its final form and was then distributed to the respondents.

b. Stability of the study tool:

In order to examine the stability of the study tool, Cronach's Alpha parameter was used for the questionnaire's axes, with a value of 0.591, which is an acceptable value indicating that the form has a considerable degree of stability and can be relied upon in the study.

3. Description of the demographic characteristics of the study sample and its analysis:

Descriptive statistics were used to extract the frequencies and percentages of the questions of the questionnaire's first section, which are related to the characteristics of the respondents' personal data, as shown in the following table.

Table 02. Distribution of the study population by gender

<i>Sex</i>	<i>Percentage</i>	<i>Frequency</i>
Male	58.30	14
Female	41.70	10
Total	100	24

The above table sought to explore the majority of the respondents' interactions, which is represented by 58.30%. While the percentage of females is 41.70%, because the Department of Information and Communication Sciences and Library Science at Guelma University has more male than female professors.

Table 03. Distribution of the study population according to job title

<i>Title Job</i>	<i>Frequency</i>	<i>Percentage</i>
Senior Lecturer - A -	05	20.80
Senior Lecturer - B -	08	33.30
Assistant-A- Professor	08	33.30
Assistant-B- Professor	03	12.50
Total	24	100

Source: The table was prepared based on spss results.

According to the above data, it becomes clear that professors of the Department of Information, Communication and Library Science at the University in Guelma are lecturers because of the department's establishment that was in 2007. This period is significant and sufficient for the promotion of professors in different ranks. As well as, employing professors who have a doctorate. Thus, the employment of master's degree holders has declined.

Table 04: Distribution of the study population according to experience

<i>Experience</i>	<i>Frequency.</i>	<i>Percentage</i>
From 1 to 5 years	05	20.80
From 6 to 10 years	13	54.20
More than 10 years	06	25
Total	24	100

Source: The table was prepared based on spss results.

According to the above table, it is obvious that the professors of the Department of Information, Communication and Library Science at

Guelma University have a considerable experience considering that the department was established in 2007 and the majority of the professors were employed before 2010.

4. Results of statistical analysis and hypothesis testing

To examine the hypotheses of the study, Anova analysis of variance was used. This type of analysis studies the extent of variation in professors' practices for scientific publishing in light of the Covid 19 crisis according to their personal variables. The results were as follows:

a. Arithmetic means and standard deviations

When analyzing the collected data, the arithmetic averages were evaluated for the responses of the members of the study population, where the scale was divided into three domains to determine the degree of approval as follows: From 1 to 1.66 representing the low degree of approval; 1.67 to 2.33 represents an average approval score; and 2.34 to 3 represents a high degree of approval.

Table 05: Academic publication of a university professor in light of the Covid 1 crisis

N °	Paragraph	Arethmic average	Standard deviation	Rank	The decision
01	Scientific articles were published in light of Covid19	2.13	0.992	1	High
02	The scientific publications and, posts that have been accomplished in light of Covid 19, has a relation with Covid19 situation	1.38	0.744	6	Low
03	The crisis has raised participation in the production of global knowledge	1.75	0.707	3	Medium
04	Taking advantage of Covid19 crisis to publish scientific research to be promoted in the job	1.87	0.991	2	Medium
05	Taking advantage from Covid19 crisis in raising the recognition of the necessity of scientific publishing	1.63	0.916	5	Low
06	The contribution to scientific publishing camewithin the framework of the publication of open access journals. Digital repositories.	1.75	0.707	4	Medium
General arithmetic mean And general standard deviation		1.751	0.842	/	Medium

Source: The table was prepared based on spss results.

The above table indicates that the general arithmetic mean value is (1.751), while the standard deviation is (0.842), which indicates that the university professor practices scientific publishing in light of the Covid 19 crisis in a moderate manner. It is noted that the mean values ranged between 1.38 2.13, where the top phrase was for the phrase " Scientific articles were published in light of the Covid 19 crisis," while the second phrase "scientific publications and posts, that was accomplished in light of the crisis, are related to the epidemic situation Covid 19" came last. Despite the members' approval on the paragraphs of this axis, the university professor must be proactive in publishing, especially in light of crises. He must be a basic reference, especially in the field of ideas and policies that would contribute to managing such crises as well as presenting the correct information in its time.

Table 06: Factors affecting scientific publishing in light of the Covid crisis

N°	Paragraph	Arithmetic average	Standard deviation	Rank	Average
07	Study's suspension due to covid 19 pandemic has pushed me toward scientific research publishing	1.50	0.535	11	Low
08	The lockdown made me more active on scientific research publishing	1.63	0.744	9	Low
09	The lockdown led to the shortage in my scientific production	1.92	0.776	6	Medium
10	I could not publish any scientific research due to difficulties	1.62	0.770	10	Low
11	Internet connection was an obstacle to me as a scientific researcher	1.79	0.884	1	Medium
12	The absence of a personal computer was a reason that I did not publish scientific articles	2.33	0.963	1	Medium
13	The suspension of universities is a main reason behind the shortage in my scientific production	2.00	0.834	3	Medium
14	Research laboratories was the appropriate place to work comfortably	2.00	0.511	4	Medium
15	Home responsibilities make me lose concentration	2.04	0.908	2	Medium
16	Study online made me lose motivation	2.00	0.659	5	Medium

17	Psychologically affected by corona virus pandemic	1.75	0.847	8	Medium
General arithmetic mean and general standard Deviation		1.870	0.766	/	Medium

Source: the schedule was built based on the spss results

The above table shows the value of the general arithmetic mean is average (1.870), while the standard deviation is (0.766). The latter indicates the average effect of personal and organizational factors on the scientific publication of the university professor in light of the Covid 19 crisis. It is also noted that the arithmetic mean values ranged Between 1.50 and 2.33. The highest was statement 12, which indicates that a personal computer and an Internet connection does not motivate him to publish more due to the presence of other influential factors, including social life and occupational factors. The 7th statement “Suspending the study in light of the Covid crisis made me devote myself For research and scientific publication” ranked last.

Despite the suspension of the study, the university professor did not devote himself to publishing and scientific research. This confirms the previous result, which is the various negative effects of several factors in publishing practices that limit the professor’s desire to publish even though during the holidays.

b. Analysis of variance ANOVA

In order to analyze the variance of differences in the scientific publishing practices of the university professor in light of the Covid 19 crisis on the bases of their personal characteristics represented by gender, job title, job experience, and the ANOVA model was used.

Table 07: ANOVA Analysis of Variance by Personal Characteristics

<i>characteristics</i>	<i>Variables</i>	<i>Percentage F</i>	<i>Probability value</i>	<i>decision</i>
Sex	Scientific publishing practices	1.500	0.385	/
	Factors affecting scientific publishing	1.200	0.513	/
Job title	Scientific publishing practices	0.234	0.903	/
	Factors affecting scientific publishing	1.000	0.569	/

Experience	Scientific publishing practices	1.098	0.489	/
	Factors affecting scientific publishing	1.900	0.380	/

Source: The table was prepared based on spss results.

The above table shows that there are no differences even in the level of scientific publishing practices of the university professor due to their personal characteristics represented in gender, job title, job experience, and this is indicated by the probability values that are all less than $= 0, 05\alpha$ and so on. This is confirmed by the relative F values in the above table, which were confined to between 0.234 and 1.900 and the corresponding calculated level of significance values, which was limited between 0.380 and 0.903, meaning that the F values are statistically significant, and this means rejecting the alternative hypothesis and accepting the null hypothesis based on the absence of statistically significant differences in the level of publishing practices The scientific university professor owes their personal characteristics to them.

III. Results of the study:

After performing statistical analysis using Spss, the following results came to place:

1. Results related to the study hypotheses

Based on the assumptions that were based on this study, the following results were reached:

- There are statistically significant differences in the level of scientific publication of the professors of the department of information, communication and library science at the university of May 08, 1945 in Guelma, which are attributed to the personal variables represented in (gender, job title, job experience). This hypothesis is not fulfilled, and this is confirmed by the findings of Table 07.
- Health safety measures for the epidemic situation Covid 19 (quarantine and suspension of studies) have greatly affect the level of scientific publication of the professors of the department of information, communication and library science at the University of May 08, 1945 in Guelma. Thus, it is a relatively realized that hypothesis is relatively confirmed by the results of Table 06 has a negative impact on the professor's motivation to publish, and social responsibilities and home quarantine measures also

negatively affected the professor's orientation towards scientific publishing in addition to the psychological impact of the health crisis On the lives of individuals in all respects.

2. General results of the study

- Despite the suspension of the study and the application of home quarantine procedures, this was not a sufficient incentive for the collective professor to practice scientific publishing.
- The social and psychological conditions that the university professors live, especially in light of the health crisis, has negatively affected their orientations towards scientific publishing.
- There is no variation in the level of academic publishing practice among professors based on their personal characteristics.
- The university professors must be proactive in publishing, especially in light of crises, because they have the qualifications and experiences that will find solutions to such crises and provide various frameworks to help in overcoming them.

Conclusion:

Information is considered as an important weapon that must be perfectly used Therefore, the university professors, as one of the main producers of this information, have to work to publish and organize it in order to use it in various fields, especially in light of crises. Professors are trying to develop policies and strategies so as to overcome various crises through scientific publishing, whether in an academic or social setting. Accordingly, it should:

- Involving the university professor in the various dialogues related to the management of various crises in order to provide forward-looking visions for them and provide ways to overcome challenges.
- Challenging the various restrictions that limit the university professor's motivation and desire to publish scientifically as well as providing equal opportunities for everyone to publish their research in the various available spaces in order to spread the benefit to all.
- Reconsidering the publishing policies set by the various scientific journals, especially with regard to the characteristics of publication, and facilitating the various publishing procedures.

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Margins

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