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The role of digital content systems used in managing Arab academic scientific journals: An analytical study

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ABSTRACT

The current research aims to highlight the role of digital content management systems adopted in the management of Arab scientific journals and to indicate its features and characteristics. As well as learning about the available global systems for managing the digital content of scientific journals. The researchers adopted the descriptive approach to achieve the objectives of the research, and the questionnaire was a data collection tool. The questionnaire was distributed to a proportional random sample that included (30) researchers who use digital content management systems for three research sample sites with two journals for each site. The journals are from the OJS platform (Professor for Humanities and Social Sciences and Al-Kufa Journal of Mathematics and Computer), the ASJP platform (the Algerian Journal of Social and Human Sciences, and the Review of Scientific and Technical Information), and the ARID platform (ARID International Journal of Humanities and Social Sciences, and the Arad International Journal of Sciences and technology). The research data was presented in the form of tables and graphs and analyzed statistically based on several methods. The research came out with several results, the most important of which is that the Algerian scientific journals website management system (ASJP) represents the best system for researchers to manage journals from the two systems (OJS, ARID).

Keywords: Digital Content, Digital Content managing systems, academic scientific journals, ASJP, OJS, ARID

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1. Introduction

Managing the digital content of electronic journals requires an integrated system that allows the exchange of research papers between many participants in the publishing process, including researchers, editor-in-chief, evaluators, and editors [1]. Each participant in the process plays an important and different role and cooperates with other participants, starting from sending the research by the researcher and receiving it through the journal's administration, evaluators, and editors, to publishing the research and making it available to the beneficiaries, and then marketing and participating in global databases. The system works on preparing a database of evaluators, researchers, and research, submitting the required reports and a summary of the evaluation, defining comments, managing links, making updates to digital content, preserving it and protecting it from loss, and making it available in several languages to expand its user base from different countries of the world. This research came to define three of the integrated systems used in the management of Arab academic scientific journals. The term digital content is defined as anything that is created and uploaded to a website: words, images, or other things, and as data transmitted as electrical impulses representing the binary system 1.0, where each character in the digital text is represented by a special octal code called byte In (Glossary of Meanings), Web Content or World Wide Web content is defined and represents all written, visual or audio content on any website on the World Wide Web and includes images, videos, texts and audio files [2-7]. Digital content is defined as information or knowledge materials available on the Internet or a digital medium (mobile phones, mobile

devices, computers, etc.), whether written, audio, visual, graphics, or software, in various topics and disciplines; also defines it as everything that is published or shared on the Internet, whether it is text, image, graphic design, infographic or video [8-12]. The researchers defined (digital content) as digital data that was represented in different forms (written texts, images, audio, video, maps, graphs, and multimedia forms). Usually, digital content is available through programs and systems for its management that work to save and retrieve it in various forms and download and publish it through various electronic media. The digital content of scientific journals is represented by the research and studies published in them, which depend on a specific software system to be received from researchers, evaluated, edited, published, and marketed. Efforts to Improve Data Journal Accuracy to Boost Device and System Productivity [8-12]. A definition of the digital content management system was established [13–17]. A CMS is a type of software that facilitates the management of digital information throughout its lifecycle, from inception through archival. Enterprise content management (ECM) and web content management (WCM) are two of the many uses for this software. (WCM). Depending on the methods of computers, networks, and electronic communications, the theoretical definition is a software system that inserts, stores, retrieves, and publishes digital content in various formats and shapes [18, 19]. The procedural definition is a program that manages the life of digital content research and facilitates the process of sending it by the researcher and then reviewing, arbitrating, editing, storing, publishing, making it available to visitors, and facilitating the process of marketing it [20-22]. Since Gutenberg started the print revolution, companies and organizations have found ways to create, translate, copy and access digital content to share their message with customers around the world. Over the past few years, a CMS has been a software platform that automates some of the tasks required to manage and publish content across the web such as uploading and formatting content for a web page, selecting key sites and images, and behind-the-scenes tasks such as SEO optimization. Over the following years, with the evolving digital transformation, commercial companies and scientific institutions have worked to enhance personal relationships with customers by building experiences of intelligent content management systems that provide digital expertise (DXPs). It builds on an integrated software foundation to engage customers across a range of digital channels and devices and includes DXP content management, powerful analytics, search, personalization, testing and optimization, and campaigning technologies. It helps marketers to understand where the customers are where one ends and the other begins. And to be able to sit comfortably at the center of a marketing technology ecosystem that can grow and meet the evolving needs of the business. And that some content management systems have begun to integrate with experience platforms, and one of the functions of any content management system is to have the capacity and functionality necessary to grow itself into an integrated experience platform when you are ready for it. This does not necessarily mean that it is the best choice for managing content and providing service to customers, a traditional CMS may be more than enough at the moment. Therefore, administrators should choose a system that supports a strong framework for managing digital content according to the services to be provided to customers [23-25].

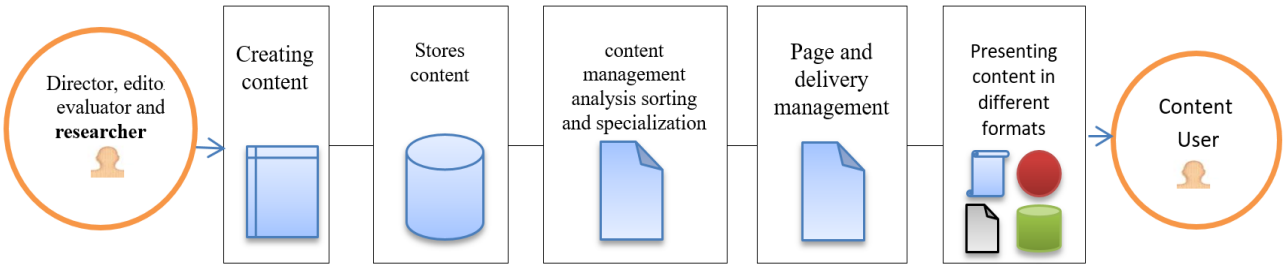

Figure 1. It represents the block diagram of digital content management [Figure prepared by researchers]

The system allows easy creation, editing, and publishing of content. The system tracks the details of digital content from start to finish, from authoring, editing, and approval to publishing, promoting, and reporting, and the ability to customize and control workflow within the system and using features such as reporting tools, link management, smart dashboards, and making Urgent updates on digital content based on the following:

- **User and System Administration:** The system integrates with strong authentication mechanisms to enhance security, prevent unauthorized access to sensitive information, and ensure that your system integrates well with your chosen enterprise security provider or third-party authentication systems.
- **Scalability and multi-channel:** Delivering content to many different channels, devices, and interfaces is a lot of work, i.e. viewing it on any device or channel.

- Content and Multilingual Capabilities: Supports multilingual editing tools and an intuitive translation workflow. The laws surrounding digital information and privacy differ from one country to another to expand the customer base easily and reach a wider audience from different countries.
- **Flexibility and scalability**: Scalable enough to grow as the business grows, the system offers the most flexibility, supporting a wide range of APIs so you can do more with your content across different channels and devices.
- **Content and Commerce Integration**: Combines additional features that enable e-commerce and digital marketing, such as seamless and adaptive inventory management, next-step automation, and easy integration with payment, shipping, and tax providers, to provide a simple shopping experience for customers [26-28].

The researchers identify four characteristics that must be distinguished by a digital content management system, which are:

- An interactive platform that can be easily managed.
- A secure platform for storing digital content in its various forms (texts, images, audio, etc.) and saving it from loss.
- A secure platform for retrieving digital content of its various types and through various electronic media.
- A platform that secures sorting and classification of digital content and provides links when searching across the web, local and global information networks, and facilitates access to it [29].

Types of digital content management systems:

- **Enterprise Content Management Systems (ECMS**): In organizations, companies, and other groups, these are the systems that keep track of paperwork, data, multimedia files, procedures, and business deals. These structures are concerned with the norms through which the establishment creates, circulates, modifies, maintains, and disseminates information that is primarily related to its primary function and is consistent with the laws and obligations that it has in its area of expertise [22].
- **Web Content Management System (WCMS**): Website content management systems (CMS) are the backbone of every organization with an online presence, making it possible to build, update, and distribute material for websites and other forms of digital communication.[30].
- **Learning Content Management System (LCMS)**: Electronic course management systems ensure the proper sequencing of lessons, as well as any associated exercises and tests, through the publication of related content. Teachers can create and distribute their electronic course materials using these systems, where enrolled students can view and engage with the material [31].
- **Portals**: These systems' primary function is to centralize all of the facility's internal and external content and services in one convenient location for the user. Such structures According to [32], electronic academic scientific publications are the most important medium for sharing research findings and are typically tailored to the needs of each academic fields or fields of study. Common assumptions and/or study data reported in the published scientific literature are often questioned in order to better comprehend the facts and findings. Articles can be either reports on original research, re-analyses of other researchers' work, reviews of the relevant literature, or proposals for new, as-yet-untested ideas [33, 34]. Electronic periodicals are those that are created, published, and disseminated on a national and international scale via the Internet and other similar systems [35]. Electronic journals are theoretically defined as those that are created, edited, released, and published in the digital format. Definition in terms of process: these are peer-reviewed scholarly publications that handle their research and news articles online, using an integrated software platform to handle submissions, peer review, editing, layout, publication, and promotion. Designed systems may provide a template and the journal management that adopts it; all the journal has to do is download its data within the ready template (the journal's title, about the journal, the journal's scope, the author's guide, etc.), and the system will handle the rest. Journal management decides how much room it needs, what kind of layout would work best for it, and what kinds of services it should offer in exchange for the room and layout it receives from other systems. To control data access, define user roles, facilitate dialogue, archive and retrieve studies for later publication, and so on are just some of the components and functions of digital content management

systems for periodicals, and so the journal is structured and organized according to several pages to display its digital content.Interfaces of the digital content management system for periodicals (System Manager, Data Entry, Editor, Author, Reviewer, Availability link).

- Journals Digital Content Data Fields (HOME, About, Aim and Scope, Author's Guide, Cover Journal, Title, ISSN, Abstract, Keyword, Journal Instructions, Publishing Ethics, Archives, Volumes Numbers, for Readers for Author's, for librarians, language).
- Reviewing the digital content of periodicals is allowed according to (Journals, Subjects, and Publishers).
- They have a high degree of integration with other systems, allowing them to retrieve information from such systems and show it to the user [36].

For academic journal management systems, search algorithm (Normal Search, Advanced Search). 5. Scope of search (All, Author, Title, Abstract Index terms, Full Text, ISSN, Publication Date, Number, Volume, Subject area, By Issue).

- A language that provides the system and the publication of research (Arabic, English, Arabic, and English together, other languages).
- The type of availability for research (Open Access, Close Access).
- Research Availability Format (Word Full Text, Abstract, PDF).
- Statistics and figures provided by the system (the most requested and most cited journals according to years, different graphs).
- It is allowed to provide links to relevant scientific institutions and journals in the field of specialization, and to participate in DOAJ, DOI and INDEXING links in international platforms [37].

Global systems for managing digital content for scientific journals:

There are many global systems for managing digital content used for scientific journals, and (8) systems have been defined, including the following:

Manuscript Manager is a peer review system for academic journals and a product of Akron ApS. Headquartered in Copenhagen, Denmark, the system hosts more than 300 academic journals worldwide. It offers publishers a free 30-day service and technical support when subscribing to the program and improves the user experience for all roles the system platform link is https://www.manuscriptmanager.com. The management system is a system produced by a (ScopeMed) company to review and track scientific journals, publishers, institutions, and associations via the Internet in return for financial fees determined by the number of participants in the system. In 2002 he launched the platform for the online startup. In 2010 it was decided to share with other journals and publishers. In 2011, about 50 journals used the system, after which an integrated system for managing online journals was introduced. And the system platform link is https://www.ejmanager.com

Peers is an integrated system produced by PEERSys, with a management system to assist the editor in managing publications, fees, expenses, and manuscripts. The system provides several services, including managing digital content for journal research and publications and publishing research work for conferences. The system can manage both free and paid articles by the company. And the system platform link is https://peersys.net. AMS is an integrated system produced by MDPI to provide journals and intellectual production services to publishers. Through the Site, it provides third-party services, such as article recommendations, social login, social sharing, and banners for third-party websites. And the system platform link is https://jams.pub. The journal system is an integrated system produced by (THDSoft), and it can manage all the processes associated with the research and creation of the journal for special designs using the presentation system with designs suitable for its organizational structure. And the link to the system platform is http://www.ejournal.gen.tr. Bentham Online Journal Management System is a web-based journal management system for submitting and tracking documents developed by Bentham Science Publishers to efficiently, quickly, and cost-effectively process submitted documents. The JMS is designed to ensure that online documentation is processed and tracked step-by-step for authors, editors, and publishers from submission to acceptance and final reproduction and the system platform link is: https://www.eurekaselect.com. The Drupal system is a system developed by the Drupal Association. The system allows the creation and control of electronic journals and authors and editors can be added. The editor-in-chief can manage issues, and control access, vocabulary, and archives. This system is inspired by OJS. The

system provides many ways to expand the journal publishing system. The system platform link is https://www.drupal.org/project/ejournal. Journal plus is a commercial turnkey system for scholarly journals based in Stockholm, Sweden. Offers a comprehensive online review of scholarly journals as well as publishing services. It helps in editing, proofreading, and publishing research, works on linking the editorial board, researchers, and peer review of journals, and hosts OJS3 on an advanced cloud server with DDOS as well as new features and high support services, the system is used by the University of Mosul to manage its journals. It provides several services.

2. Method

2.1. Studying the problem

At the end of the twentieth century, due to the spread of computers, communication technologies, information networks, and the provision of electronic resources, many digital content management systems appeared, and their forms varied and their productions varied. Among these systems are integrated local or international journal management systems, including commercial, profitable, or non-commercial free ones, including open source or closed source. Many journals have resorted to choosing the system that facilitates the process of receiving and evaluating research and creating a suitable and secure electronic environment for its preservation, publication, and marketing. As well as achieving its participation in global databases and obtaining an impact factor by applying the standards and specifications required to be available on the websites of international journals according to the capabilities of the system used .Hence, the problem of the current research can answer the following question: What are the approved systems for managing the digital content of Arab academic scientific journals? The importance of this research lies in the fact that it sheds light on the most important systems adopted in managing the digital content of Arab journals. Hence, the need to delve into the literature on this subject, and highlight the areas of benefit from digital content management systems in managing Arab scientific journals, and their conformity to the required international standards. The current research aims to know the digital content management systems adopted in the management of Arab scientific journals and to indicate their advantages and characteristics. The research objective can be achieved by Introducing the global digital content management systems used in the management of Arab academic journals; Introducing the content management systems for the three research sample sites; Explanation the role of systems, and the research sample used in managing the digital content of Arab journals.

There is a significant statistically significant effect relationship between the use of digital content systems and its effectiveness in managing Arab academic journals. It is represented by the following sub-hypotheses:

- There is a significant statistically significant effect on the administration of Arab academic journals - website design.
- There is a significant statistically significant effect on the administration of Arab academic journals - subscription to the journal's website.
- There is a significant statistically significant effect on the administration of Arab academic journals - sending the research to the journal's website.
- There is a significant statistically significant effect of the administration of Arab academic journals - research peer-review.
- There is a significant statistically significant effect of the administration of Arab academic journals - publishing the research.
- There is a significant statistically significant effect on the administration of Arab academic journals - research marketing.

2.2. Data collection tools

For the questionnaire, it has been distributed to a proportional random sample that included (30) researchers who use digital content management systems for three sites, the research sample, and two journals for each site, one scientific and the other humanitarian. The journals are from the OJS platform (Professor for Humanities and Social Sciences and the Kufa Journal of Mathematics and Computer), from the ASJP platform (the Algerian Journal of Social and Human Sciences, and the Journal of Review of Scientific and Technical Information), and from the ARID platform (Arid International Journal of Humanities and Social Sciences, and the Arid

International Journal of Science and Technology. The questionnaire includes general information and questions (32 questions) about the advantages of websites, subscribing to the journals website, sending and refereeing research, leading to its publication and marketing. Print and electronic sources are for writing the theoretical framework and previous studies of the research.

2.3. Defining terminology

The digital content management system was defined by a paper by Sarah Amsler and Fred Greshvill from the year 2021: A digital content management system (CMS) is a program that lets people make and modify and share and publish and save digital content. It's a tool for handling both ECM and WCM [39] (enterprise and web content management). Theoretically speaking, it is a software system that uses computer, network, and electronic communication technologies to insert, save, retrieve, and publish digital content in a variety of formats. Procedural definition: a program that manages the life of digital content research and facilitates the process of sending it by the researcher and then reviewing, arbitrating, editing, storing, publishing, making it available to visitors and facilitating the process of marketing it. The electronic academic scientific journals were often specialized for various academic disciplines or sub-disciplines, and according to the American Psychological Association (2017), it is the most important means of disseminating research findings. In order to better grasp the facts and conclusions, scientific studies frequently contradict widely held beliefs and/or study data reported in scholarly literature. Articles might be either reports on original research, re-analyses of other researchers' work, reviews of the relevant literature, or proposals for new, as-yet-untested hypotheses [40]. Procedural definition are scientific journals for which the digital content of research and scientific news is managed based on a software system that facilitates receiving, evaluating, editing, typesetting, publishing and marketing research electronically.

3. Results and discussion

There are two axes involved in this framework. The first part of this study will define the digital content systems currently in use for the administration of Arab academic scientific publications. The role of the research sample systems in managing digital content and their compliance with the required international standards is the focus of the second axis, which involves analyzing the data of the questionnaire questions distributed to publishers in the research sample journals. It was generated digitally following Google Forms (https://forms.gle/cYLAxfoaSrPxNnC16) and presented to a panel of experts to verify its accuracy (10) Appendix (1). research sample was emailed to the researchers. John Wilensky created the platform in 1998 at the University of British Columbia's College of Education. Released under the open-source GPL v2 license, it is a unified and free software program for managing and publishing online scientific journals. Publishing Services PKP created and launched it in 2001 with the intention of making scholarly resources more accessible. In 2016, we published version 3.0 of the system. More than 25,000 international periodicals are used by the system. A customizable, free, and mobile-friendly reader interface, all content, installation, modification, and local control may be managed in a highly flexible and customizable manner. Connected to research-oriented publication platforms like Crossref, Orcid, and DOAJ, and it's translated into almost 30 other tongues! [19]. Algerian Scientific Journal Platform (ASJP): It is an electronic platform for the electronic publishing of Algerian scientific journals. It was released in 2016 and developed and managed by CHRIST. It is not responsible for the scientific value contained in the publications. In the event of ethical problems (e.g., plagiarism of scientific content) the author is required to contact the editor-in-chief of the relevant journal directly. It includes (683) journals within the platform until 15/9/2021 in all scientific and humanitarian disciplines. The platform is available in three languages: Arabic, English, and French. Among the platform's objectives are: It provides Structuring and organizing journals to classify them according to standards to ensure scientific quality and ease of access for users. and the site includes several options related to the author, the submitted articles (accepted, rejected, accepted with reservation), the research evaluation form (originality and modernity of the study, language quality, confirmation of new or pre-existing information) as well as a statement of the editor’s opinion to the researcher, the editor’s opinion to the editor-in-chief [20]. Platform management system (ARID): The launch of the scientific journal management system on the ARID platform was on 9/9/2019. The system consists of several options (publishing instructions, sending research, editorial board, board of trustees, current issue). The platform includes (5) journals, namely (Areed International Journal of Humanities and Social Sciences, Arad International Journal of Science and Technology, Arad International Journal of Media Studies and Communication Sciences, Arad International Journal of Educational and Psychological Sciences, Arad International Journal of Information

Measurement). And the containers are registered in the journals Crossref, Content, Registration, Doi, Open, and Access. [21].

3.1. Data analysis of the answers of the research sample to the questionnaire

By looking at Table 1, it is possible to determine the basic characteristics of the study sample members, as the number of males reached (14) individuals, or (47%) of the study sample members. As for females, their number reached (16) individuals, constituting (53%) of the study sample size. As for the distribution of the study sample members in terms of academic qualification, the category of Ph.D. holders represented the highest and most prominent category, as their number reached (24) and represented 80% of the total number. The number of master's degree holders came in second place, with a number (6), or 20% of the total. While it ranked first for holders of the scientific title (Lecturer) with a number (12) and 40% of the total. While the second place was occupied by (Assistant Professor), with several (10) and a rate of 33%. The titles of (Professor) and (Assistant Lecturer) ranked third, as their number was (4), or 13% of the total. Table 1 and Figure 2 illustrate this:

Table. 1. Academic qualification

qualification	**Academic Title**						**Sex**			
	Prof.	Asst.Prof.	Lecture	Asst Lecture.	No.	%	Male		**Female**	
PhD	4	10	10	-	24	80%	8	27%	15	**50%**
Master	-	-	2	4	6	20%	6	20%	1	**3%**
Total	4	10	13	3	30	100%	14	47%	16	**53%**
Percentage	13%	33%	43%	10%			**30**			
							100%			

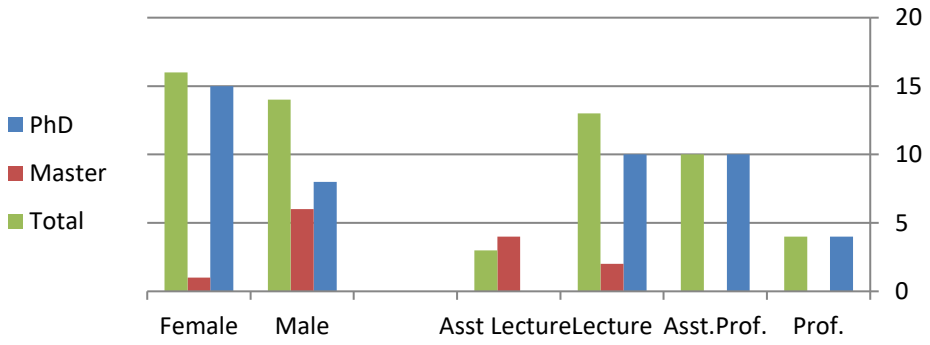

Figure 2. Sample Distribution

Table 2 and Figure 3 show the results of the preliminary analysis of the opinions of the research sample, as it turns out that the values of the descriptive statistical indicators represented by the weighted arithmetic mean, standard deviation, and percentage of the total questionnaire variables, have achieved a high response. It can be explained to the following paragraphs. The variable (site design) had the highest response among the study sample if the generally weighted arithmetic means of the total paragraphs of the variable reached (2.71), that is, higher than the value of the hypothetical mean that was adopted, which indicates the response of the sample to the content of the variable paragraphs. While the value of the standard deviation was (0.40), and by a percentage amounted to (90%). As the paragraph (the existence of a guide for researchers or instructions for publishing) and (the aesthetics of the site, tools, main interface, and sub-interfaces) of (site design) got the highest weighted arithmetic averages (2.90) with a standard deviation of (0.18). While the paragraph (the site can be accessed through various electronic technologies and applications (computers, mobile phones, television, smart panels, local and global information networks) (website design) got the lowest average (2.43) with a standard deviation (0.64). The general weighted arithmetic mean of the subscription index for the journal site was (2.61) with a standard deviation of (0.48), an indication of the consistency of the responses received towards this variable, with a percentage of (87%). The paragraph (ease of access to the journal's website link) for (subscribing to the journal's website) got the highest weighted arithmetic average (2.93) with a standard deviation of (0.12). On the other hand, the paragraph (I did not encounter difficulty in subscribing to the journal's website) regarding (subscribing to the journal's website) got the lowest average (2.50) with a standard deviation of (0.64). The

general weighted arithmetic mean of the subscription index for the journal site was (2.69), with a standard deviation of (0.40), an indication of the consistency of the responses received towards this variable. The paragraph (ease of downloading and sending research) of (sending the research to the journal's website) got the highest weighted arithmetic average (2.90) with a standard deviation of (0.18), while the paragraph (number of steps to send the research is appropriate) (subscribing to the journal's website) got the lowest averages (2.53) with a standard deviation (0.56). The general weighted arithmetic mean of the subscription index for the journal site amounted to (2.72) and with a standard deviation of (0.35), an indication of the consistency of the responses received towards this variable, with a percentage of (90%). In the paragraph (peer-review is done based on scientific integrity and provides us with a report of scientific plagiarism detection) for (research peer-review) the highest weighted arithmetic averages (2.90) and a standard deviation of (0.18). While the paragraph (the peer-review process is characterized by objectivity and to provide us with the necessary adjustments) for (subscribing to the journal's website) got the lowest averages (2.53) and a standard deviation (0.49). The general weighted arithmetic mean of the subscription index for the journal site amounted to (2.73) and with a standard deviation of (0.41) an indication of the consistency of the responses received towards this variable with a percentage of (91%). As the paragraph (the method of editing and typesetting the research is good) for (publishing the research) got the highest weighted arithmetic averages (2.80) and with a standard deviation of (0.32). While the paragraph (accessibility of the research after its publication by keywords and extract) for (subscribing to the journal's website) got the lowest averages (2.66) and standard deviation (0.44). The variable (research marketing) came with the lowest response among the study sample if the weighted general arithmetic means of the total paragraphs of the variable reached (2.51), that is, higher than the value of the hypothetical mean that was adopted, which indicates the response of the sample to the content of the variable paragraphs. While the value of the standard deviation was (0.63), and by a percentage amounted to (84%). The paragraph (the site provides super links to the websites and pages of scientific institutions specialized in research and scientific publishing) for (publishing the research) got the highest weighted arithmetic averages (2.60) with a standard deviation of (0.53). While the special paragraph (search marketing in Arab and international sites and platforms, Google Scholar, and Research Gate) (search marketing) got the lowest averages (2.40) and a standard deviation (0.76).

Table 2. Distribution of sample answers, weighted mean, standard deviation, and weight percentile

No.	Variable	Agree	Some what Agree	I don't agree	WAM	SD	WP
	1. Website Design						
1	Supports multi-language editing tools (Arabic, English, and others).	20	10		2.66	0.44	89%
2	Clarity of presentation and editing of digital content (research) for journals.	24	2	4	2.66	0.53	89%
3	Availability of search tools (normal, advanced, both).	22	8		2.73	0.39	91%
4	Integration of the information required to publish the research.	25	5		2.83	0.37	94%
5	The presence of a guide for researchers or instructions for publication.	27	3		2.90	0.18	97%
6	The aesthetic of the site, tools, main interface, and sub-interfaces.	27	3		2.90	0.18	97%
7	The site can be accessed through various electronic technologies and applications (computers, mobile phones, television, smart boards, and local and global information networks).	17	9	4	2.43	0.64	81%
8	The system provides communication with the administrative body of the journal, assessors, and researchers, and assigns roles and permissions to them.	22	8		2.73	0.39	91%

No.	Variable	Agree	Some what Agree	I don't agree	WAM	SD	WP
	1. Website Design						
9	It provides clear instructions for using any part of the site, and a helpful program to assist researchers and answer their inquiries.	21	5	4	2.56	0.60	85%
					2.71	0.40	90%
	2. Subscribe to the journal's website						
10	Easy access to the journal website link.	28	2		2.93	0.12	98%
11	The flexibility of the steps to subscribe to the journal's website.	22	2	6	2.53	0.68	84%
12	The number of steps involved in subscribing to the site is appropriate.	17	13		2.56	0.49	85%
13	The digital information required for registration is known and identified.	17	13		2.56	0.49	85%
14	I did not face any difficulty in subscribing to the journal's website.	19	7	4	2.5	0.63	83%
					2.61	0.48	87%
	3. Submit the research to the journal's website						
15	Ease of downloading and sending the article.	27	3		2.90	0.18	97%
16	The number of steps to submit the article is appropriate.	18	10	2	2053	0.56	84%
17	Submitting the article did not take me long.	20	10		2.66	0.44	89%
18	The submitted article extension is limited to Microsoft Word.	24	6		2.76	0.35	92%
19	I had no difficulty sending the article.	19	11		2.63	0.45	88%
					2.69	0.40	90%
	4. Search peer-review						
20	The peer-review process is characterized by the transparency and integrity of the arbitrators.	22	8		2.73	0.39	91%
21	The peer-review process is objective and provides us with the necessary amendments.	17	13		2.53	0.49	84%
22	Peer review is done based on scientific honesty, and we are provided with a report on scientific plagiarism detection.	26	4		2.90	0.18	97%
					2.72	0.35	90%
	5. Research publication						
23	The meta-information needed to publish the article is sufficient.	17	3		2.73	0.42	91%
24	Commit to the specified period for publishing the article.	25	2	3	2.73	0.44	91%
25	Good article editing and typesetting.	23	6	1	2.80	0.32	93%
26	The ability to access the article after its publication by keywords and abstract.	20	10		2.66	0.44	89%
27	Notify the researcher to publish the article and provide him with the publication link.	25	2	3	2.73	0.44	91%
					2.73	0.41	91%
	6. Research Marketing						

No.	Variable	Agree	Some what Agree	I don't agree	WAM	SD	WP
	1. Website Design						
28	The site provides super links to the sites and pages of scientific institutions specialized in scientific research and publishing.	25	6		2.60	0.53	87%
29	Indexing and introducing the journals and their research in local and international databases.	19	8	3	2.53	0.59	84%
30	Marketing search in Arab and international sites and platforms, Google Scholar, and Research Gate.	18	5	7	2.40	0.76	80%
					2.51	0.63	84%

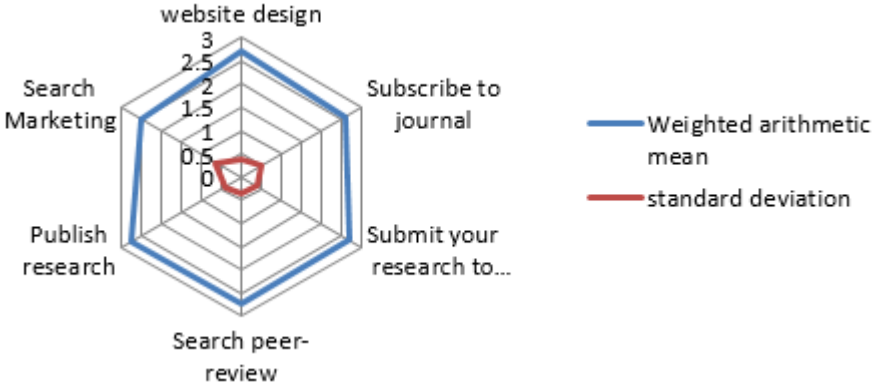

Figure 3. Distribution of the values of the research sample answers to the variables

3.2. Hypothesis testing

The statistical analysis shown in Table 3 shows that the results of the correlation and regression relationships are a strong positive direct relationship between the variables of digital content systems and their success in managing Arabic journals. This can be illustrated through Table 3 and Figure 4 as follows:

Table 3. Results of the correlation and regression between the variables of digital content systems

Variables / **TESTS**	**T**		**F**		**R**	**R^2**
	Tabular	**Calculated**	**Tabular**	**Calculated**		
website design	1.18	4.521	17.53	23.30	0.6	0.78
Subscribe to journal	1.16	3.582	16.64	21.33	0.51	0.72
Submit your research to journals	1.21	1.821	3.411	20.823	0.48	0.69
Search peer-review	1.19	14.32	3.15	4.23	0.62	0.79
Publish research	1.26	8.60	1.511	4.08	0.65	0.81
Search Marketing	1.20	1.995	1.564	3.805	0.40	0.63

For site design, we note that the calculated (4.521) value of (T) is greater than the tabular (1.18) and with a confidence degree (95%) that supports what the researchers went for in the hypothesis. To verify the above test, test (F) was conducted if the calculated (F) value was (23.30), which is greater than the tabular (17.53), with a degree of freedom (28) and a confidence degree of 95%, and this confirms its statistical acceptance. The explanatory ability of the digital content systems variable (R2) appears as a good explanatory ability (0.60), which means that the site design affects an amount of (60%) of the management of Arabic journals.

For subscribing to the journal's site, we note that the calculated (T) value (3.582) is greater than the tabular (1.16) and with a confidence degree (95%) that supports what the researcher went for in the hypothesis. To verify the above test, the computed (F) test (21.33) was conducted, which is greater than the tabular (16.64), with a degree of freedom (28) and a degree of confidence (95%), and this confirms its statistical acceptance. The explanatory ability of the user variable (R2) appears as a good explanatory ability (0.51), and this means that the method of subscribing to the journal's site affects an amount (51%) in the management of Arab journals. In addition,

Regarding sending the research to the journal's website, we note that the calculated (T) value (1.821) is greater than the tabular (1.21) and with a confidence degree (95%) that supports what the researcher went for in the hypothesis. To verify the above test, the computed (F) test (20.823) was conducted, which is greater than the tabular (3.411), with a degree of freedom (28) and a degree of confidence (95%), and this confirms its statistical acceptance. The explanatory ability of the user variable (R2) appears as a good explanatory ability (0.48), and this means that the method of sending the search to the journal's website affects an amount (48%) in the management of Arab journals. For research peer-review, the calculated (T) value (14.32) is greater than the tabular (1.19) and with a confidence degree (95%) that supports what the researcher went for in the hypothesis. To verify the above test, the computed (4.23) test was conducted, which is greater than the tabular (3.15), with a degree of freedom (28) and a confidence degree (95%), and this confirms its statistical acceptance. The explanatory ability of the user variable (R2) appears as a good explanatory ability (0.62), and this means that the peer-review of the research affects an amount (48%) in the management of Arab journals. For publication of the research, the calculated (T) value (8.60) is greater than the tabular value (1.26) and with a confidence degree (95%) that supports what the researcher went for in the hypothesis and to verify the above test. The (F) test was conducted if the calculated (F) value was (4.08), which is greater than the tabular value (1.511), with a degree of freedom (28) and a confidence degree of 95%, and this confirms its statistical acceptance. The explanatory ability of the digital content systems variable (R2) appears as a good explanatory ability (0.65), and this means that the method of publishing the research affects an amount (48%) in the management of journals.

For Research marketing, the calculated (T) value (1.995) is greater than the tabular (1.20) and with a confidence degree (95%) that supports what the researcher went for in the hypothesis and to verify the above test. The (F) test was conducted if the calculated (F) value was (3.805), which is greater than the tabular (1.564), with a degree of freedom (28), and with a confidence level of 95%, and this confirms its statistical acceptance. The explanatory ability of the digital content systems variable (R2) appears as a good explanatory ability (0.40), and this means that the method of research marketing affects an amount (48%) in the management of Arab journals.

This is demonstrated by hypothesis (1), which states that there is a significant and statistically significant effect relationship between the use of digital content systems and its effectiveness in managing Arab academic journals. It is represented by the following sub-hypotheses:

- There is a significant statistically significant effect on the administration of Arab academic journals - website design.
- There is a significant statistically significant effect on the administration of Arab academic journals - subscription to the journal's website.
- There is a significant statistically significant effect on the administration of Arab academic journals - sending the research to the journal's website.
- There is a significant statistically significant effect of the administration of Arab academic journals - research peer-review.
- There is a significant statistically significant effect of the administration of Arab academic journals - publishing the research.
- There is a significant statistically significant effect on the administration of Arab academic journals - research marketing.

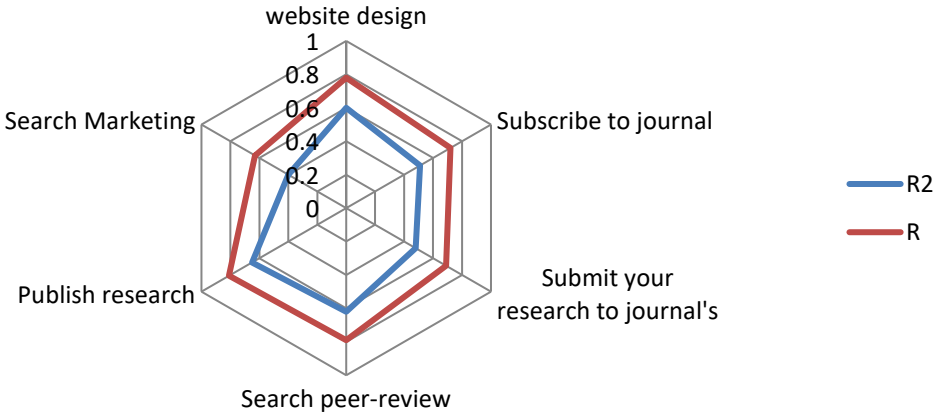

Figure 4. Distribution of simple regression coefficient values

To clarify the most important digital platforms used by the research sample, the two researchers chose three digital content systems. These systems were measured by analyzing the answers of the research sample to the paragraphs (the scientific title, the number of research published in each system, and the advantages and difficulties of the system) by calculating the frequency and percentage, as shown in Table 4 as follows:

Table 4. Type of digital system used

system	Academic Title				No. of papers published in the system	Pros		Cons	
	Prof.	Asst. Prof.	Lecture	Cast Lecture.		good	Not available	Not available	Requires Practice
ARID	2	5	3	-	12	7	3	6	4
	7%	17%	10%	-	13%	23%	10%	20%	13%
OJS	1	1	6	2	20	6	4	9	1
	3%	3%	20%	7%	41%	20%	13%	30%	3%
ASJP	1	4	4	1	17	10	-	10	
	3%	13%	14%	3%	35%	33%		33%	
Total	4	10	13	3	49				
Percentage	13%	33%	43%	10%					

The results of the study analysis proved that the OJS system was the first criterion for researchers in the number of research published in it (41%). The ASJP system came as the second choice for researchers, with a percentage of 35% of published research papers. As for the ARID system, it came with the fewest number of research published in it, at a rate of (13%). The table shows that the ARID system was the first criterion for researchers with scientific titles, where the title of professor came by (7%), assistant professor (17%), and lecturer (10%). As for the OJS system, it came with the lowest percentage of researchers with scientific titles, where the title of professor came (3%), assistant professor (3%), lecturer (20%), and assistant lecturer (7%). The table shows that the ASJP system is the first criterion for researchers about the number of advantages that characterize the system, including ease of use, at a rate of (33%). The OJS system came with the lowest percentage according to the study sample in terms of the advantages of the system, at a rate of (20%). The table shows that the ASJP system is the first criterion for researchers in terms of the lack of difficulties, as the study sample agreed that the system does not have any difficulties, at a rate of (33%). The ARID system came with the most digital content systems that need training, according to the study sample, with a rate of (13%).Through Table 4 and after following up on the results of the analysis of academic titles, the number of research published in each system, and the advantages and difficulties of the digital content system, it was found that the ASJP system was the best interface for researchers. Some Arabic papers are published in [38-42].

4. Conclusion

There are several integrated systems for managing the digital content of journals adopted by Arab scientific journals, including the more widely used OJS system, which was issued in 2001. There is an Arabic system for the electronic publishing of journals of a particular country prepared with the assistance of foreign parties, including the ASJP system, which was issued in 2016. There is an electronic platform for managing scientific journals in Arabic for the platform and inviting scientific institutions to communicate with the platform, use the system, and manage scientific journals for them through it, such as the scientific journal management system available through the ARID platform, which was released in 2019.The characteristics of the research sample were represented in terms of gender (14) males and (16) females, in terms of academic qualification (24) Ph.D. and (6) master's, and terms of scientific title (12) teacher and (10) assistant professor and teacher and (4) For both a professor and an assistant teacher. The preliminary analysis of the opinions of the research sample about the variables of the questionnaire showed that it is primarily to publish the research with a percentage weight of 91%, to design the site and send the research to the journal and judge it with a percentage weight of 90%, and subscribe to the site with a percentage weight of 87%, and the least is marketing the research with a percentage weight of 84%. There is a significant effect between the use of digital content management systems and the effectiveness of journal management in terms of website design by 60%, subscription to the journal's website by 51%, and sending research to the journal's website, peer-review, publishing, and marketing it by 48%. The research proved that the first criterion for the three systems in the study sample was:

- ASIP system in terms of the advantages of the system, ease of use, and fewer difficulties by 48%.
- OJS system in terms of publishing research (41%).
- The ARID system in terms of the characteristics of researchers with the titles of professor (7%), assistant professor (17%), and teacher (10%). And it needs more training on the system by 13%.
- ASIP is the best system for researchers to manage journals from OJS and ARID.

5. Recommendations

Arab countries must be interested in introducing the scientific journals issued in them by preparing integrated electronic systems with the aim of publishing, indexing and managing their academic journals, as well as marketing them and making them available to the whole world. And that these journals adhere to international standards for the acceptance, peer-review and publication of research to ensure its authenticity. Inviting the bodies responsible for the integrated systems for the electronic management of scientific journals is required to work on reviewing and updating them constantly and improving their services and ensuring easy access to the journals website, subscribing, sending and evaluating research, publishing and marketing it. Attention to setting unified standards stemming from international standards is required for evaluating scientific journals, as well as adopting unified standards for evaluating research and specific within a standard evaluation form and requiring journal editorial boards to abide by them.

Declaration of competing interest

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References

[1] H. Benbya, S. Pachidi, and S. Jarvenpaa, "Special issue editorial: artificial intelligence in organizations: implications for information systems research," *Journal of the Association for Information Systems,* vol. 22, no. 2, p. 10, 2021.

[2] C. Chapman and A. Handley, *Content Rules: How to Create Killer Blogs, Podcasts, Videos, Ebooks, Webinars (and More) That Engage Customers and Ignite Your Business*. John Wiley & Sons, 2012.

[3] Y. a. T. L. Abdel Muti, "Encyclopedia of library and information sciences," *Cairo: Modern Book House,* p. 126, 2008.

[4] A. Handley and C. C. Chapman, *Content Rules*. Wiley, Hoboken, N.J., 2011.

[5] Y. Abdel Muti and T. Lesher., *Encyclopedia of library and information sciences.* Cairo: Modern Book House, 2018, p. 126.

[6] S. H. Hassan Al-Taai, H. A. Kanber, and W. A. Mohammed al-Dulaimi, "The Importance of Using the Internet of Things in Education," *International Journal of Emerging Technologies in Learning,* vol. 18, no. 1, 2023.

[7] D. K. A.R. Al-Malah, "Enhancement of educational services by using the internet of things applications for talent and intelligent schools," *Periodicals of Engineering and Natural Sciences (PEN),* vol. 8, no. 4, pp. 2358-2366, 2020.

[8] M. Blog, "Defining Digital Content," 2021.

[9] H. E.-D. Muhaisen, "The Digital Content Industry," 2019.

[10] Web Content, "The Comprehensive Lexicon of Meanings for Each Drawing," 2021.

[11] R. A. Azeez, M. K. Abdul-Hussein, and M. S. Mahdi, , "Design a system for an approved video copyright over cloud based on biometric iris and random walk generator using watermark technique," *Periodicals of Engineering Natural Sciences,* vol. 10, no. 1, pp. 178-187, 2022.

[12] B. H. Majeed, "Effect of Augmented Reality Technology on Spatial Intelligence among High School Students," *International Journal of Emerging Technologies in Learning (Online),* vol. 17, no. 24, p. 131, 2022.

[13] S. Amsier and F. Churchville, "Content management system (CMS) " 2021.

[14] A. Alaidi, O. Yahya, and H. Alrikabi, "Using Modern Education Technique in Wasit University," *International Journal of Interactive Mobile Technologies,* vol. 14, no. 6, pp. 82-94, 2020.

[15] H. Sabah, "A Detection of Deep Fake in Face Images Using Deep Learning," *Wasit Journal of Computer and Mathematics Sciences,* vol. 1, no. 4, pp. 94-111, 2022.

[16] J. Q. Kadhim, I. A. Aljazaery, "Enhancement of Online Education in Engineering College Based on Mobile Wireless Communication Networks and IOT," *International Journal of Emerging Technologies in Learning,* vol. 18, no. 1, 2023.

[17] H. A. Kanber, S. H. H. Al-Taai, and W. A. M. Al-Dulaimi, "Recruitment of Teachers for Cooperative Education in Educational Institutions," *International Journal of Emerging Technologies in Learning,* vol. 18, no. 3, 2023.

[18] B. H. Majeed, and L. F. Jawad, , "Tactical Thinking and its Relationship with Solving Mathematical Problems Among Mathematics Department Students," *International Journal of Emerging Technologies in Learning,* vol. 16, no. 9, pp. 247-262, 2021.

[19] H. Al-ogaili and A. M. Shadhar, "the Finger Vein Recognition Using Deep Learning Technique," *Wasit Journal of Computer and Mathematics Sciences,* vol. 1, no. 2, pp. 1-11, 2022.

[20] A. Khanna, S. J. C. Kaur, and e. i. agriculture, "Evolution of Internet of Things (IoT) and its significant impact in the field of Precision Agriculture," vol. 157, pp. 218-231, 2019.

[21] A. M. Mohammed, H. A. K. Al-Saadi, and S. H. H. Al-Taai, "Information Sources and their Role in E-learning from Iraqi College Students' Viewpoint," *Webology,* vol. 19, no. 1, pp. 1128-1150, 2022.

[22] H. A. Kanber and M. E. Alkhalidy, "Google Scholar and The scientific originality of the professor," *Iraqi Journal of Information Technology,* vol. 8, no. 2 2018 ,اللغة العربية.

[23] S. Corporation, "What is a CMS (Content Management System?," https://www.sitecore.com/knowledge-center/digital-marketing-resources/the-cms-features-you-need 2019.

[24] L. F. Jawad, and B. H. Majeed, "The Impact of CATs on Mathematical Thinking and Logical Thinking Among Fourth-Class Scientific Students," *International Journal of Emerging Technologies in Learning,* vol. 16, no. 10, pp. 194-211, 2021.

[25] D. K. Abdul-Rahman Al-Malah, B. H. Majeed, , "Enhancement the Educational Technology by Using 5G Networks," *International Journal of Emerging Technologies in Learning*, vol. 18, no. 1, 2023.

[26] S. Corporation, "Guideline The definitive guide to choosing a content management system Everything you need to know about buying a CMS for a multichannel world," file:///C:/Users/Lenovo/Downloads/2019-GuidetoChoosingCMS-v3%20(1).pdf 2019.

[27] N. Hussien, I. Ajlan, and M. M. Firdhous, "Smart Shopping System with RFID Technology Based on Internet of Things," *international Journal of Interactive Mobile Technologies,* vol. 14, no. 4, pp. 17-29, 2020.

[28] R. Asgarnezhad, S. S. A. Majeed, Z. A. Abbas, and S. S. Salman, "An Effective Algorithm to Improve Recommender Systems using Evolutionary Computation Algorithms and Neural Network: Using Evolutionary Computation Algorithms and Neural Networks, an Effective Algorithm to Improve Recommender Systems," *Wasit Journal of Computer and Mathematics Sciences,* vol. 1, no. 1, pp. 27-35, 2022.

[29] N. S. Alseelawi, E. K. Adnan, H. T. Hazim, and K. Nasser, "Design and Implementation of an E-learning Platform Using N-Tier Architecture," *international Journal of Interactive Mobile Technologies,* vol. 14, no. 6, pp. 171-185, 2020.

[30] B. H. Majeed, and L. F. Jawad, "Computational Thinking (CT) Among University Students," *International Journal of Interactive Mobile Technologies,* vol. 16, no. 10, pp. 244-252, 2022.

[31] R. a. M. Al_airaji, I. A. Aljazaery, H. T. Salim ALRikabi, and A. H. M. Alaidi, "Automated Cheating Detection based on Video Surveillance in the Examination Classes," *International Journal of Interactive Mobile Technologies,* vol. 16, no. 8, pp. 124-137, 2022.

[32] R. F. Levant, Y. J. Wong, and A. P. Association, *The psychology of men and masculinities*. American Psychological Association Washington, DC, 2017.

[33] A. P. Association, "What Are Scientific Journals?," https://www.apa.org/advocacy/research/defending-research/scientific-journals 2017.

[34] L. F. Jawad, M. K. Raheem, and B. H. Majeed, "The Effectiveness of Educational Pillars Based on Vygotsky's Theory in Achievement and Information Processing Among First Intermediate Class Students," *International Journal of Emerging Technologies in Learning (iJET),* vol. 16, no. 12, pp. 246-262, 2021.

[35] H. Qassem, *Electronic journals and digital libraries*. Cairo: Dar Gharib for printing, 2010.

[36] I. Sarhan, "Digital Content Management Systems, Multiple Concepts, One Goal " https://taelum.org/ 2015.

[37] N. Jassim, A. Zkear, and B. Majeed, "Smart Learning based on Moodle E-learning Platform and development of Digital Skills for university students," *International Journal of Recent Contributions from Engineering, Science IT,* vol. 10, no. 1, pp. 109-120, 2022.

[38]Y. S. Mezaal, H. T. Eyyuboglu, and J. K. Ali, "A novel design of two loosely coupled bandpass filters based on Hilbert-zz resonator with higher harmonic suppression," in *2013 Third International Conference on Advanced Computing and Communication Technologies (ACCT)*, 2013.

[39] S. A. Shandal, Y. S. Mezaal, M. F. Mosleh, and M. A. Kadim, "Miniaturized wideband microstrip antenna for recent wireless applications," *Adv. Electromagn.*, vol. 7, no. 5, pp. 7–13, 2018.

[40] Y. S. Mezaal and H. T. Eyyuboglu, "A new narrow band dual-mode microstrip slotted patch bandpass filter design based on fractal geometry," in *7th International Conference on Computing and Convergence Technology (ICCIT, ICEI and ICACT)*, 2012, pp. 1180–1184.

[41] Y. S. Mezaal, H. H. Saleh, and H. Al-saedi, "New compact microstrip filters based on quasi fractal resonator," *Adv. Electromagn.*, vol. 7, no. 4, pp. 93–102, 2018.

[42] F. Abayaje, S. A. Hashem, H. S. Obaid, Y. S. Mezaal, and S. K. Khaleel, "A miniaturization of the UWB monopole antenna for wireless baseband transmission," *Periodicals of Engineering and Natural Sciences*, vol. 8, no. 1, pp. 256–262, 2020.