Research Article

Models of Good Practices for Document Management with an Information Technology Component in the Notarial Service in Colombia, A Narrative Review

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ARTICLE INFO	ABSTRACT
	This narrative review article focuses on the analysis of a series of articles developed in research works or in some cases in articles of the same type, starting from the analysis of the practices used in document management, Information and Communication Technologies (ICTs) and Knowledge Management (KM), considering them as main guidelines for their review. The objective is to analyze the models of good practices for document management with an information technology component in the notarial service. The method is given through the narrative review, making use of known information search engines, as well as university repositories that investigate the subject, subsequently in the analysis the key points are taken according to the objective, to determine that good practices should start from the construction of the information architecture according to the processes, and end in continuous training and capacity building for public servants. **Keywords:** Knowledge management, information systems, digitalization, public information, public archives.

Introduction

The notarial system in Colombia is "*a public service that is provided by notaries and involves the exercise of notarial faith because it constitutes a task aimed at satisfying, in a continuous and obligatory manner, a need of general interest, subject to a special legal regime"* (Superintendence of Notaries and Registry, 2022) therefore, the demand for notary services in Colombia is high, considerably increasing the processes that involve the document management system for the provision of the service. This leads to high paper consumption, delays in process management and in the delivery of responses for service consumers. On the other hand, Document Management (Ruiz Viera, 2021) It consists of a merely technical and operational process, which encompasses a number of legal guarantees from the human, through the fundamental and settling in the everyday, coming to be considered as an integrating science of information that seeks to protect and preserve it over the years, as part of the memories of a nation.

In view of this, the national government, through different strategies, launches a series of projects called "online government", as a strategy for the efficiency and effectiveness of its processes. Since 2020 with the digitization project for the notarial system, where in the notarial protocol (Superintendence of Notaries and Registry, 2020) It defines that it seeks to centralize and consolidate the documents that are worked on in the notary offices in accordance with the acts required for said protocol, and in this way, the notary will be able to carry out notarial actions by electronic means, as long as the conditions of security, availability, interoperability, integrity, accessibility and digital action mechanisms are guaranteed.

However, the transition to digital is slow, as it must guarantee the security of processes and information, safeguarding processes and data for the exclusive use of users. Thus, this article, through a narrative review, seeks to know the models of good practices for document management with components in

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information technologies in the notarial service in Colombia. Well, information and communication technologies have become omnipresent in people's daily lives, and currently facilitate management processes and access to information, a clear example of this is the Integrated Planning and Management Model (MIPG), which is a system that contributes to the management of state entities.

Materials and methods

The article was developed through a narrative review, which (Aguilera, 2022) It is characterized by being a more or less exhaustive form and is carried out by experts in a certain subject, and in this the author does not declare the methods used to obtain and select the information. In addition, it is stated (Paul Enferm, 2007) that these are broad publications, appropriate to describe and discuss the development of art on a given subject, from a contextual theoretical point of view.

For the aforementioned reasons, the construction of the article is based on an exhaustive search in different databases, where the main support was given in Semantic scholar, Google Scholar, Scielo, Dialnet, WordPress, as well as the search in different open repositories of Colombian universities that researched on the subject. The specific selection of each article for review is given through the main theme and the defined objective, which were considered to address the subject matter under study, and their scientific development and theoretical support was solid and truthful.

Results

Document Management

"*Maturity models in document management and archives: an effective tool for evaluation, planning and continuous improvement*" (Zapata Cárdenas, 2023) defining maturity models as a structured collection of elements that describe the characteristics of a process in a defined aspect until reaching the ideal state, or completion. Considering a series of advantages of these models such as the identification of areas or opportunities for improvement for the fulfillment of objectives, guide improvement programs in organizations. This research states that public entities in particular have few standards to evaluate the processes associated with the archiving and document management functions that are carried out in them, therefore, they require effective methods to identify the weaknesses of the processes and carry out an appropriate planning of goals in these issues.

"*Archival Training in Colombia: A Comparative View from the National Public Policy on Records Management*" (Vallejo Sierra & Pirela Morillo, 2022) Starting from the mission of archival training, which refers to the formal instruction of future professionals in the field, focused on archival technical processes, document management, administration, archive organization, archival theory and what is related to archive users. In recent years, the national government has been updating the General Archive Model of the Nation of Colombia, specifically in 2020 it generated version 2.0 of this public policy, highlighting its technological component that covers aspects of electronic administration, preservation of documents in electronic environments, interoperability, security and privacy. For the aforementioned reasons, it is vital within the models of good practices to consider and validate the current training of the people in charge of archives in notarial systems, well, in the review of the professional training of archivists, contents were found that are not fully aligned with what is proposed in the Model of Document Management and Administration of Archives. which becomes a weakness.

"*The legal nature of document management in Colombia*" (Ruiz Viera, 2021) starting from the right to information where UNESCO(UNESCO, n.d.) It advocates access to information as a fundamental freedom and a key pillar in the construction of knowledge societies. In this sense, the Legal Notions of Law, in addition to the United Nations Education Organization (United Nations Education Organization, 2020) It points out that the right to information promotes a culture of transparency and accountability of public authorities by granting all citizens the right of access to information. In this sense, Law 1712 of 2014, which is known as the Law of Transparency and the Right of Access to Public Information, seeks to regulate the right to access public information, the procedures for the exercise

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and guarantees of the same, as well as the exceptions to the publicity of information. Law 594 of 2000, which aims to establish the general rules and principles that regulate the archival function of the State.

Consequently, it is concluded that the guarantees for the right and access to information in a timely manner are linked to document management procedures and archival functions, therefore, it is affirmed that the integration of ICTs in Document Management processes contributes to equality in access to information by citizens.

"*Document Management (GD) as a development tool related to transparency and access to information in Colombia*". (Ruiz Viera, 2019) it highlights the definition of transparency as the legal, ethical and organizational framework of public administration, in addition to identifying its close relationship with the importance and scope of document management in Colombia, since for this, Law 1712 of 2014 known as the Law of Transparency and the Right of Access to National Public Information is established. Accordingly, it is important in the aspects of the complete transition to ICTs, to consider each of the factors set forth in Law 1712, in order to guarantee full transparency along with timely access to information.

"*Document Management in Colombia: A Lexicometric Analysis of the Legal Framework between the Periods 1913 – 1989 and 1990 – 2017*". (Acevedo Villada, 2018) Document management processes have been framed by public policies defined according to the interests of the entities, however, in this research work it is emphasized that the country must emphasize more on the electronic transition of document management, taking significant advantage of the efforts that the Government has been carrying out as "online government". which seeks to build a more efficient, transparent and participatory State. For its part, the management of the archive that is linked to the General Archive of the Nation, depends on the Ministry of Culture, and there the MinTIC has made important efforts to support and develop strategies in the electronic management of documents, seeking the maximum benefit for the document and archive management of the country and the dependencies that cover these processes.

"*Good practices in public management in Latin America*" (Armijo, 2004) Currently there is a trend to adopt good practices in the different fields of management, and in the public sector these practices cover aspects in planning, management control, budgeting, evaluation, user service, quality of services, e-government, etc. thus highlighting the favorable trends towards innovation in the services provided, promoting efficiency and effectiveness. In this sense, Benchmarking is highlighted as a suitable tool for the analysis of public management in different organizations, since the author defines it as the continuous process of systematizing information on the work processes of organizers who stand out in the environment for their good practices, in order to learn from them and thus improve organizational management.

ICTs

"*Information management software: a proposal to counteract one of the causes of the problem of judicial congestion in Colombia*". (Rojas Villarraga et al., 2022) The use of information management tools is highlighted as an appropriate option for the reduction of service times, the optimization of management, as well as the timely provision of information according to the indicators of each entity. In the case of the entity under study, a web application was developed that allows the management of information by classifying and organizing it according to needs, citing tools such as www.radicapp.com The contribution of these to the problems of user congestion is affirmed. Therefore, the in-depth assessment by experts on this mobile application will allow obtaining guidelines adaptable to the current needs of the notarial system.

"*Use of ICTs in the notary offices of the city of Guayaquil in the face of the COVID-19 pandemic*" (Cedeño Jurado & Pizarro Vásquez, 2022) It highlights the digital transition that was framed due to the pandemic, where the commerce sector was forced to adapt to new technologies, representing an important step towards the technological transition of organizations, as well as government entities.

Where in the specific case of the entities under study, the procedures that could be carried out virtually and those that were linked to face-to-face were initially listed, and in the same way both could be publicly attested. Because of the above, a specific technological tool was developed for the notarial system called Sanyr, however, it is not currently used in its entirety, and from this study it is key to highlight the analysis of the resistance to change of public workers, which affirms the need for training in the use of ICTs to complement and streamline the processes in notary offices.

"*Benefits offered by Big Data management in government institutions in the age of digitalization*" (Escobar Borja et al., 2020) Big Data is known as data processing, which allows internal processes to be streamlined, public documentation to be managed quickly and its main support is ICTs. In the public sector, Big Data allows establishing public policies that respond to diverse needs in an effective and efficient way, it provides significant information for decision-making, segments populations in greater detail to focus actions, improves the efficiency and effectiveness with which data is processed, facilitates the identification of inconsistencies, errors and frauds contributing to the reduction of security threats, innovation in business models and the effectiveness of public policies, participation and transparency of the financial inclusion of resources and information. Likewise, the inclusion of ICTs allows strengthening the formulation of public policies by considering a faster presentation to citizens.

"*Information and knowledge management systems in cooperative enterprises: collaborative knowledge societies*" (Pérez Díaz, 2017) IS information systems have great relevance in increasing organizational capacity in the face of changing environment, they allow obtaining multiple competitive advantages by offering timely and relevant information. From these come the Information and Knowledge Management Systems IQAS, which offers an increase in organizational capacity in the face of change in the environment, considering the close articulation that must exist between the informational architecture, organizational processes, structures and information flows, as well as the environment and the people they manage.

In this way, it contributes to the conservation of information, and the availability of it in an effective way, including knowledge as part of the improvements of organizational processes, and that this must be stored to guarantee innovation and sustained improvement.

"*Technical difficulties for the implementation of the new regulations in the development of online government strategy and document management in Colombia: decrees 2578 and 2609 of 2012 (AGN) and 2693 of 2012 (MinTIC)*" (Pulido Daza & Tibaduiza Ávila, 2013) The purposes of the State in the adoption of technologies to implement online government, led to the enactment of a series of regulations that regulate the terms and conditions that guarantee the maximum use of ICTs in public administration, and thus achieve a more efficient, transparent and participatory State. However, the research highlights a series of difficulties such as the technological component that is specified in access to digital connectivity and its quality in the country, budgetary limitations, and the specific training of human resources who have a long career in state organizations. Additionally, this article mentions the SISNA General Information System, which allows the user to graphically visualize compliance with archival policy in Colombia.

"*The modernization of the state: concept, content and social applications*" (Saboya Vargas, 2006) it highlights the advantages obtained through the implementation of new technologies in government entities, highlighting the improvement of organizational structures, relations between companies and entities, and increased productivity. In addition, it is important to consider that the adoption of these technologies entails the receipt of new hardware and software equipment, specific training of personnel, technical assistance, considering these as factors that must be guaranteed for the proper functioning of the modernization of the State, since this is considered as a humanistic process in its origin. which supports the perspective of each person of the State, of origin and of the institution that is promoted.

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Knowledge management

"*Relationship between Knowledge Management and Innovation in the public sector. A literature review*" (Jurado Zambrano et al., 2023) KM is known as the ability of organizations to create new knowledge through the conversion of tacit knowledge to explicit knowledge, which is transferred and incorporated into all organizational processes. For this reason, KM is known as a determinant for public innovation in knowledge transfer processes.

"*Knowledge Management: Case of a Colombian Public Sector Entity*" (Zambrano & Valencia Upegui Jury, 2021) Public entities present a series of conflicts to respond in a timely manner and their management capacity to comply with stakeholders, adding public value, through the efficient use of resources. In this way, knowledge management in State entities allows the conversion, storage, processing and delivery of information in a simple and effective way, which is easy to understand for users and in turn guarantees the satisfaction of their needs.

"*Approach to the guidelines for the implementation of knowledge management in public sector entities in Colombia*" (Galindo Arévalo, 2020) within the function of the MIPG, KM and innovation are defined as a transversal management tool, which is aimed at strengthening the learning of institutions based on the generation of knowledge. The knowledge derived from the institution must be available and the reach of interest groups to dynamize and maximize the management of public institutions, based on the use, appropriation and sharing of the knowledge of the public servant. This article highlights a problem that must be considered in the different institutions, such as resistance to change on the part of the public servant, the change in the development of activities can generate stress, presenting interruptions, alterations and internal changes for the adequate provision of the service, therefore, in each transition process contingency plans must be contemplated in order to guarantee quality and transparency in the time of transition.

"*Knowledge Management in Public Administration: An Introduction*" (Aguilar, 2020) the importance of KM is highlighted as a necessary factor to respond to the demand for effectiveness demanded by governments, the current digitalization together with the incorporation of artificial intelligence in activities, requires direction and knowledge management so that applications, projects and processes are beneficial for citizens. Additionally, it is highlighted that public entities must rely on technologies that collect, process, transform and store information for the adequate acquisition, production, dissemination and application of knowledge.

Conclusions

Within the models of good practices, the one defined by (Vallejo Sierra & Pirela Morillo, 2022) (Armijo, 2004)(Cedeño Jurado & Pizarro Vásquez, 2022) (Pérez Díaz, 2017), which place particular emphasis on training and education processes for public servants, so that they contribute appropriately to the management and use of information management systems, or any technological tool that is adopted in favor of the improvement of document management.

Information technologies and communication through Big Data and software applications are necessary to decongest processes that have a high demand, in addition to allowing citizens access to electronic services, avoiding the displacements and long lines that usually occur in these entities.

Knowledge management as a transversal model and which is currently governed through the Planning and Management Integration Model, must be strengthened from different aspects, starting from communication between public servants, the conversion of knowledge from explicit to tacit, and vice versa, in such a way that a sustained continuous improvement can be maintained in the different processes that are executed for the provision of services. contributing to productivity, efficiency and effectiveness.

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The Notarial System in Colombia, thanks to its exercise of public faith, must place particular emphasis in its electronic management model on the security guidelines for the validation of information on which your faith is required.

Good practices for document management according to the results obtained require training and training for the public servant, construction of the information architecture, choice of information systems, the software that will carry out the storage, processing and acquisition of information, since these will form the fundamental basis for the effectiveness in the application and use of such technologies.

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