TOOL FOR INTERNAL AUDITS IN LOCAL GOVERNMENTS

Herramienta para auditorías internas en gobiernos locales

Ávila, Fernando; Muñoz, David; Ríos, Margarita¹; Camacho, Hernando; Londoño, Diana
Universidad Santo Tomás, School of Mechanical Engineering

Abstract

According to the National Planning Department - DNP, in Colombia 972 of the 1101 municipalities are in the sixth category, in the Department of Tolima 43 of the 47 are in the sixth category. Furthermore, within the Internal Control Offices of these municipalities, it has been demonstrated that there is inefficiency in the fulfillment of their roles (strategic leadership, focus on prevention, evaluation of risk management, evaluation and follow-up (internal audits); relationship with external control entities). This occurs due to different causes (methods, processes and personnel). For this reason, this research aims to improve this process, developing a tool to perform comprehensive internal audits in the sixth category municipalities, taking as a reference the following Technical Standards: NTC ISO 19011:2018, NTC ISO 45001:2018, NTC ISO 14001:2015, NTC ISO 18091:2019, articulated with The Audit Guide for Public Entities, Decree 1072 of 2017, Law 99 of 1993, and the Integrated Planning and Management Model - MIPG v2 respectively. Through an investigation with a qualitative approach of exploratory and descriptive character, analyzing the audit process and identifying the compliance and priorities of the aforementioned technical standards versus the legislation, to later design and validate an application that allows to guide the internal auditor of the Mayors' Internal Control Offices of the sixth category municipalities in the fulfillment of their roles. It is important to emphasize that, performing integral audit processes with the support of the proposed tool leads to the following benefits: integrates information for decision making, risk occurrence prevention, favors the achievement of institutional objectives, increases the transparency index, improves planning and resource management, reduces operation time and efforts, reduces over costs due to redundant activities, improves process control, favors legal compliance and other stakeholders, facilitates appropriation (awareness). With the research and development of the tool, it was concluded that in most Latin American countries, there are no structured performance evaluation systems for the municipalities that make up the system, or they are in the initial stages. The sixth category municipalities have shortcomings in the exercise of internal audits due to different internal and

¹ Corresponding e-mail: margaritarios@usta.edu.co; mmriosp@gmail.com

external factors, causing a malpractice of the exercise, which with the help of a tool for planning and conducting comprehensive internal audits, allows the sixth category municipalities to adequately comply with the regulations and provide valuable inputs to senior management for decision making

Keywords: Sixth Category Municipality; Integral Internal Audit; NTC 19011; MIPG

Resumen

De acuerdo al departamento de planeación nacional DNP, en Colombia 972 de los 1102 municipios son de sexta categoría, en el departamento del Tolima 43 de las 47 áreas son de sexta categoría. Además, dentro de las oficinas de control interno de estos municipios se ha demostrado que existe ineficiencia en el cumplimiento de roles (liderazgo estratégico, enfoque preventivo, evaluación de la gestión de riesgos, evaluación y seguimiento (Auditorías internas), relación con las entidades de control externo) Esto ocurre por diferentes razones (Métodos, procesos y personal). Por esto, esta investigación tiene como objetivo mejorar este proceso, desarrollando una herramienta para realizar auditorías internas integrales en municipios de sexta categoría, tomando como referencia las normas técnicas: NTC ISO 19011:2018, NTC ISO 45001:2018, NTC ISO 14001:2015, NTC ISO 18091:2019, articulado con la guía de autoría para entidades públicas, Decreto 1072 de 2017, Ley 99 de 1993 y el Modelo Integrado de Planificación y Gestión - MIPG v2 respectivamente.

La investigación se desarrollará a través de un enfoque cualitativo de carácter exploratorio y descriptivo, analizando el proceso de auditoría e identificando el cumplimiento y prioridades de las referidas normas técnicas versus la legislación, para posteriormente diseñar y validar una aplicación que permita orientar al auditor interno de los alcaldes y oficinas de control interno de los municipios de sexta categoría en el cumplimiento de sus funciones.

Es importante resaltar que realizar procesos de auditoría integral con el apoyo de la herramienta propuesta conlleva los siguientes beneficios: integra información para la toma de decisiones, prevención de ocurrencia de riesgos, favorece el logro de los objetivos institucionales, aumenta el índice de transparencia, mejora la planificación y los recursos gestión, reduce tiempos y esfuerzos de operación, reduce sobre costos por actividades redundantes, mejora el control de procesos, favorece el cumplimiento legal y otros grupos de interés, facilita la apropiación. Con la investigación y desarrollo de la herramienta se concluyó que en la mayoría de los países latinoamericanos no existen sistemas estructurados de evaluación del desempeño de los municipios que integran el sistema, o se encuentran en etapas iniciales. Los municipios de sexta categoría tienen deficiencias en el ejercicio de las auditorías internas debido a diferentes factores internos y externos, provocando una mala práctica del ejercicio, que, con la ayuda de una herramienta de planificación y realización de auditorías internas integrales, permite a los

municipios de sexta categoría cumplir adecuadamente con las regulaciones y proporcionar valiosos aportes a la alta dirección para la toma de decisiones.

Palabras clave: Municipios de sexta categoría; Auditoría integral interna; NTC 19011; MIPG

I. INTRODUCTION

In Colombia, more than 90% of municipalities are classified into the sixth category, that is, according to the legal provisions, municipalities with a population of no more than 10000 inhabitants and with a current income of free destination that do not exceed 15.000 minimum monthly wages (SMLMV) [1][2]. The municipality must comply with the legislation that the State issues for its operation, which includes internal audits to measure and evaluate the efficiency, effectiveness and economy of the other control entities.

In this context, performance assessments for municipalities are defined as a process that must be continuous, systematic and periodic. This process assessed quantitatively and qualitatively the degree to which the local authorities achieve the goals of their management, in terms of commitments established within the Municipal Development Plan [3]. In Colombia, the measurement of the Municipal Performance Assessment aims to measure, compare and order municipalities according to their integral performance, understood as management capacity and development results, taking into account their initial endowments, in order to incentivize better management, quality of expenditure and results-oriented investment [4].

For the evaluation of the performance, municipalities in the sixth category have the following technical standards: NTC ISO 19011:2018, NTC ISO 45001:2018, NTC ISO 14001:2015, NTC ISO 18091:2019, the Audit Guide for Public Entities, Decree 1072 of 2017, Law 99 of 1993, and the Integrated Model of Planning and Management – MIPG v2, which is regulated through article 133 of Law 1753 of 2015 that issues the National Development Plan 2014 – 2018. In this law, the Administrative Development System (1998) and the Quality Management System (2003) was integrated into one: The Management System, which must be articulated with the Internal Control System (2005). For the new Management System and its articulation with the Internal Control System, the MIPG v2, adopted in 2012 by Decree 2482, was updated. [5].

Although it is clear that there are regulations that support the monitoring and evaluation process in public entities (Internal Control) and specifically in the Mayors' offices of the municipalities that comprise the Nation, corruption cases, and malpractice have been evidenced over the years in the internal audit process, which can arise for different causes such as: methods, unskilled personnel and inefficient procedures. Additionally, the extensive regulations that the Colombian State issues, which constitute a wide spectrum, can become a cumbersome and confusing practice for the officer when applying them in the municipalities of the different categories, thus losing

objectivity in the audit and its purpose.

The research group does not identify previous investigations that address the problem posed by the development of a tool that guides the internal control officer of a municipality to conduct comprehensive internal audits that facilitate the application and understanding of the regulations; however, it suggests how this tool can serve as an input to subsequent investigations that help municipalities in this category.

II. MATERIALS AND METHODS

The type of research is exploratory, because an application of this type does not currently exist and requires interviews with experts, as well as a pilot test in the Mayor's office of Mariquita - Tolima that was structured to validate its contents. The research is carried out in five phases that are described below.

Phase I. *Conception of the idea of the application to solve the problem:* It consists in problem analysis through a diagnosis of the internal audit process of a sixth-category Mayor's office in accordance with ISO 18091:2019, ISO 19011:2018, the MIPG v2 in the dimension of internal control, and the Audit Guide for Public Entities

Phase II. *Design and architecture:* This phase aims to model the program according to the identified needs, in a clear language for employees of the Mayor's office, easy to use and consult.

Phase III. *Programming:* This phase comprises the design and development of the tool programming, which consists of:

- Front-end and back-end design
- Database structure through tables
- Create relationships between tables.
- Create queries with selection and sorting criteria.
- Create forms.
- Create reports.

The program is developed under the Cascade methodology, it is so named because of the position of the phases in the development of this one, which seem to cascade "by gravity" towards the following phases. It is the methodological approach that rigorously orders the stages of the process for the development of software, in such a way that the beginning of each stage must wait for the completion of the previous stage. At the end of each stage, the model is designed to carry out a final review, which is responsible for determining whether the project is ready to move on to the next phase. This model was the first to originate and is the basis for all other life cycle

models. [6]

Phase IV. *Application tests and adjustments*: This phase makes a parallel in terms of difficulties or shortcomings regarding a typical audit in the municipality of Mariquita, Tolima, in order to apply the necessary adjustments for the tool to be effective.

Phase V. *Documentation and maintenance*: Both the technical specifications of the tool and step-by-step instructions that help the officials of a Mayor's office to carry out a comprehensive internal audit are documented in guide mode, including the maintenance plan of the tool.

III. RESULTS AND DISCUSSION

To generate an effective tool, easy to use and access to the municipalities of the sixth category, the phases proposed for its obtaining were developed as follows:

Phase I. *Conception of the idea of the application to solve the problem*: Initially, the research team conducted a bibliographic study in which it was possible to determine that, in some Latin American countries, systems for municipal evaluation have been designed and implemented. Mexico, for example, designed and implemented a system of measurement and evaluation of performance, called SEDEM, in 2005 [7] and the Municipal Performance Guide in 2019 [8]. Chile initiated the implementation of the measurement and evaluation of performance in its municipalities. The Latin American and Caribbean Institute for Economic and Social Planning - ILPES produced in 2012 the manual "Designing a performance measurement system to evaluate municipal management" [9], as a methodological proposal to measure the performance of municipal management in Latin America. In Colombia, the Integrated Model of Planning and Management, adopted in 2012 by Decree 2482, was updated in 2018. [5]. Additionally, the existence of computer tools to carry out comprehensive audits was researched. Countless commercial software was found, such as: Gensuit Audit Management, Panotica Hidra 4.0, Suite Gesia, among others [10]. This demonstrated that such software is designed for organizations of any kind, without taking into account specific requirements, such as those of a municipality. Therefore, this reveals the feasibility of developing the proposed tool, since it is specifically designed towards the needs of a sixth category municipality and is an innovative product in this sector.

Figure 1 graphically shows how the MIPG v2 are integrated and articulated with the components and elements of internal control, and supported by technical standards, to develop the tool.

Figure 1. Conception idea of the app

The research team started from the MIPG v2, which consists of 7 dimensions: human management, strategic management and planning, management for results with values, evaluation of results, information and communication, knowledge management, and internal control [11]. The team focused on the seventh dimension, "Internal Control", since with this dimension and the implementation of the policy that integrates it, the objective of the MIPG v2 is fulfilled, that is, to develop an organizational culture based on information, control and evaluation, for decision-making and continuous improvement [12]. The components of this dimension are considered to establish the effectiveness within the entities of the controls designed from the structure of the other dimensions of MIPG v2 and to define the responsibility and authority to control through its scheme of Lines of Defense, and the elements of internal control, since the Heads of Internal Control carry out their work through the roles described. These are the inputs for the design of the tool, taking into account that the Internal Control office is the one that determines the objective, risk, scope, resources, methodology and criteria of the audit [12]. The equipment also includes the technical standards NTC ISO 19011:2018, NTC ISO 45001:2018, NTC ISO 14001:2015, NTC ISO 18091:2019, the Audit Guide for Public Entities, the Decree 1072 of 2017, Law 99 of 1993, and the MIPG v2. These documents are included in order to generate checklists that guide the control managers and allow them to adjust the tool to their needs and make decisions about the benchmarks or criteria to use.

Phase II. *Design and architecture*: Considering the problem to be solved, the application is developed in Microsoft Access and the programming language is VBA (Visual Basic for Applications). This language is used to program Windows applications and is included in several Microsoft applications. It also allows the functionalities of an event-oriented language with access to the Windows API. These resources are easily accessible and applicable in the Mayors' offices of sixth category municipalities, as they are compatibles to their systems and commonly used.

The technological requirements to install the application are:

- a) OS: Windows XP, Vista, 7, 8, or 10 with 64-bit processor.
- b) Memory: 2 GB RAM.
- c) Graphics: DirectX 11 Compatible.
- d) DirectX: Version 11.
- e) Storage: 63 MB of available space.
- f) Server Specifications: Windows server

Phase III. *Programming*: The following activities were carried out for the design and development of the tool:

- a. Splitting the database: It consists in creating two databases. The first one is called back-end and contains the programming tables exclusively. The second one is front-end and contains the rest of objects: queries, forms, reports, macros and modules (Figure 2).

Figure 2. Creation of split database: back-end and front end

- b. Database structure using tables: Tables are the fundamental structure of a database system. In Microsoft Access, a table is an object that stores data in records (rows) and fields (columns).
- c. Create relationships between tables: This is an established association between common fields (columns) in two tables. Fields that are related can be called differently, but they must have the same type of data. The relationship allows the Access engine to find data from both tables.
- d. Create queries with your selection and sorting criteria: This is a way to find and collect information from one or more tables to obtain detailed information from a database.
- e. Create forms: These are elements of Microsoft Access that allow building a communication interface between the user and the database.
- f. Create reports: This is an effective way to present data in printed or on-screen format.

Phase IV: *Application and Adjustment Tests (phase to run)*: In this phase, supported by the Mayor of Mariquita, Tolima, the pilot test of the tool will be carried out by developing a comprehensive audit. Additionally, the tool will be presented to expert personnel for analysis and evaluation. Once the results of the application tests are obtained, the corresponding adjustments will be made.

Phase V: *Documentation and Maintenance (phase to run)*: Both the technical requirements of the tool and step by step instructions are documented in guide mode to help the employees of the Mayor's office to carry out a comprehensive internal audit of the municipality. This guide also includes the maintenance plan of the tool.

For this phase, the Internal Risk-Based Audit Guide for Public Entities [8] was taken into account, so that both the language and the structure of the proposed document is in accordance with the aforementioned guide, since this is law enforcement for municipalities. Besides, the guide has similar structure and language to the NTC ISO 19011:2018, thus it is easy for users of the Mayor's office to understand it.

IV. CONCLUSIONS

In Latin America, it was observed that, in most countries, structured performance assessment systems for their constituent municipalities do not exist or are at the early stages. For example, although Chile and Argentina have already started with the performance assessment process, both countries are still behind Mexico and Colombia, which have structured systems for such measurement.

The municipalities of the sixth category have shortcomings in the exercise of internal audits for several reasons, such as the cumbersome regulation in Colombia and the poor training of some internal control heads on the subject that causes malpractice of the exercise.

A tool for planning and carrying out comprehensive internal audits allows sixth category municipalities an adequate compliance with the regulations and gives value inputs to the upper management for decision-making.

Once the tool is validated, it will provide sixth category municipalities with a powerful aid for the efficient and effective execution of comprehensive internal audits, providing important inputs for decision making, early detection of malpractice, possible corruption cases.

The tool helps the internal control officials of a municipality to understand the regulations, since it provides correlation matrices between the different regulations, simplifying their interpretation, avoiding reprocessing, and reducing audit times.

The development of a tool to carry out comprehensive internal audits of sixth-category municipalities helps to conduct audits in a simple and practical manner; it is recommended that the phases be continued: Application tests, adjustments, documentation and maintenance, in order to have a tool applicable to the municipalities of the mentioned category.

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