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# Integrated management in the state-owned social welfare enterprises in the capital district of Bogotá\*

Gestión integral en las empresas sociales del Estado (ESE) del  
distrito capital de Bogotá

Gestão integrada nas Empresas Sociais do Estado (ESE) do  
Distrito Capital de Bogotá

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## ABSTRACT

This study shows the results of the design and validation of a methodological approach to integrated management in the State-Owned Social Welfare Enterprises (SSEs) of the Capital District of Bogota. The purpose is to offer an alternative for the effective administration of the twelve (12) management systems that these entities must implement in accordance with the current regulation. For the design of the proposal, a combined method was used, which was developed in stages, whereby success factors were identified, as well as a focal point for the implementation, maintenance and improvement of management systems, and a set of five tracers considered fundamental to achieve a successful appropriation of the integration project. The methodological proposal, which was adjusted in accordance with the obtained results, was implemented in one of the State-Owned Social Welfare Enterprises (SSE) of the Capital District's Public Network in order to assess its performance and determine its applicability and usefulness for the effective administration of the management systems that are of mandatory implementation in the Capital District's SSEs. This implementation contributed to reach conclusions regarding its viability and provided a set of recommendations to guide the application of the obtained results.

**Keywords:** Integrated management, success factors, State-Owned Social Welfare Enterprises, healthcare accreditation, management systems.

## RESUMEN

El presente estudio muestra el resultado del diseño y validación de una propuesta metodológica de gestión integral para las empresas sociales del Estado (ESE)

de la red pública del distrito capital, cuya finalidad es presentar una alternativa para la eficaz administración de los doce (12) sistemas de gestión que estas entidades deben implementar conforme a la normatividad vigente. Para el diseño de la propuesta se utilizó un método mixto, desarrollado por fases a través de las cuales se identifican factores de éxito, un eje articulador para la implementación, mantenimiento y mejora de los sistemas de gestión y cinco aspectos trazadores que se consideran fundamentales para lograr apropiación del proyecto de integración. La propuesta metodológica diseñada y ajustada de conformidad con los resultados obtenidos fue implementada en una de las ESE de la red pública del distrito capital, con el fin de evaluar su desempeño y determinar su aplicabilidad y utilidad para lograr la eficaz administración de los sistemas de gestión de obligatoria implementación en las ESE del Distrito Capital, con lo cual se concluye sobre su viabilidad y se proporcionan un conjunto de recomendaciones para orientar el aprovechamiento de los resultados obtenidos.

**Palabras clave:** gestión integral, factores de éxito, empresas sociales del Estado, acreditación en salud, sistemas de gestión.

## RESUMO

Este estudo mostra o resultado do projeto e aprovação de uma proposta metodológica de gestão integrada para às Empresas Sociais do Estado (ESE) da rede pública do Distrito Capital, cuja finalidade é apresentar uma alternativa para a eficaz administração dos 12(doze) sistemas de gestão que estas entidades devem implementar de acordo com as normas vigentes. Para a concepção da proposta utilizou-se um método misto, desenvolvido por estágios através dos quais identificam-se fatores de sucesso, um eixo articulador

para a implementação, manutenção e melhoria dos sistemas de gestão e cinco aspectos destacados considerados fundamentais para alcançar a aprovação do projeto de integração. A proposta metodológica projetada e ajustada de acordo com os resultados obtidos foi implementada em uma das ESE da Rede Pública do Distrito Capital, a fim de avaliar seu desempenho e determinar a sua função e utilidade para uma eficaz administração dos sistemas de gestão de aplicação obrigatória nas ESE do Distrito Capital, no qual se concluiu sua viabilidade e o fornecimento de orientações para o aproveitamento dos resultados obtidos.

**Palavras-chave:** gestão integral, fatores de sucesso, Empresas Sociais do Estado, aprovação na saúde, sistemas de gestão.

## INTRODUCTION

The implementation of management systems to improve administrative tasks has been one of the tools adopted in the public sector to guide the actions of state entities in accordance with constitutional principles, in particular those relating to good faith, equality, morality, promptness, economy, impartiality, effectiveness, efficiency, participation, publicity, accountability, and transparency. The purpose is to strengthen the administrative capacity and institutional performance, and thus obtain better results in the delivery of the goods and services offered to the citizens (Colombia, Congreso de la República, 1998).

For this purpose, Colombia created in 2003 the quality management system in the executive branch with the objective “to guide and evaluate institutional performance in terms of quality and social satisfaction in the services provided by the entities” (Colombia, Congreso de la República, 2003), adopting as a tool the Technical Quality Standard for Public

Management (NTCGP 1000), which “establishes the minimum requirements for documenting, implementing and maintaining a Quality Management System in the organizations, entities, and agents requiring its implementation under article 20 of Law 872 of 2003” (Colombia, Departamento Administrativo de la Función Pública [DAFP], 2009).

This technical standard was adopted by means of Decree 4110 of 2004 and updated in 2009 by means of the Decree 4485. It is of compulsory enforcement and compliance for the “agencies and entities of the Central Sector and of the Decentralized Sector of the Executive Branch at the national level, and in the administrative management required for the performance of functions in the other branches of government at the national level” (Colombia, Congreso de la República, 2003, p. 1).

In compliance with Law 872 of 2003, the Capital District of Bogotá formally adhered in 2008 to the Ibero-American Charter of Quality in Public Management, which among its principles provides for the adoption of standardized management systems as a key success factor for the development of a continuous process of assessment and improvement, recommending the adoption of models that take into account the integrated management of quality, environment, and occupational health (Centro Latinoamericano de Administración para el Desarrollo [CLAD], 2008).

Based on this commitment, the Bogota Administration issued Decree 176 of 2010 (Colombia, Alcaldía Mayor de Bogotá, 2010) which articulates quality, internal control, environmental management, occupational health and safety, information security, document management, social responsibility, and the integrated planning and management model to constitute the District’s Integrated Management System - SIGD (Colombia, Alcaldía Mayor de Bogotá, 2011), which was created by means of District Decree 651 of 2011.

The District Technical Standard for the Integrated Management System (NTD-SIG-001), defined as an implementation tool for the District Entities and Agencies, was adopted by means of Decree 652 of 2011 and has become a “national and global point of reference as there are no precedents of a similar initiative in the public sector” (Colombia, Alcaldía Mayor de Bogotá, 2011, p. 5).

For Healthcare Providers (IPS, for the acronym in Spanish) and Benefit Plan Management Companies (EAPB, for the acronym in Spanish), the technical quality standard equivalent to that required by Law 872 of 2003 is the Compulsory Quality Assurance System in Healthcare– SOGCS (for its acronym in Spanish) (Colombia, DAFP, 2007). In addition to the above-mentioned systems, the Single Qualifying System (SQS), the Single Accreditation System (SAS), the Quality Information System (QIS), and an audit component for continuous improvement are also implemented.

In the light of this policy context, the State-Owned Social Welfare Enterprises (SSEs) of the Capital District, which are responsible for the provision of healthcare in the public network (Colombia, Ministerio de Salud, 1994), are forced to implement, maintain and improve twelve mandatory Management Systems, four of which belong to the Compulsory Quality Assurance System in Health Care (SOGCS, for its acronym in Spanish) while the remaining eight systems are included in the District’s Integrated Management System (SIGD) that has been established for the entities of the Capital District.

These systems add up a total of 2,842 individual requirements, as listed in Table 1. Given this amount of mandatory requirements, an alternative integration is needed to facilitate and simplify an appropriate and consistent articulation of the applicable requirements so that they can be efficiently managed in order to adequately comply with the planned goals and objectives.

**Table 1.** Regulatory Requirements applicable to the SSEs of the Capital District.

System	Model	Requirements	Reference Standard
Compulsory Quality Assurance System in Healthcare (SOGCS)	Single Qualifying System	1,336 standards	Resolution 1441 of 2013
	Quality Information System	30 Requirements	Resolution 1446 of 2006
	Auditing for Continuous Improvement	158 standards	Resolution 1445 of 2006
Decree 1011 of 2006	Single Accreditation System	158 standards	Resolution 123 of 2013
The Integrated Management System for entities and agencies of the Capital District - NTD-SIG-001:2011 • Decree 176 of 2010 • Decree 651 of 2011 • Decree 652 of 2011 • Decree 1599 of 2005 • Decree 2482 of 2012	Quality Management System	202 requirements	Technical Standard of Quality in Public Management NTCGP 1000:2009, adopted by Decree 4485 of 2009. Colombian Technical Standard NTC-ISO 9001:2008. Quality Management System. Requirements.
	Internal Control System	29 items	Internal Control Standard Model MECI 1000:2005, adopted by Decree 1599 of 2005 Risk Management - Principles and Guidelines- ISO 31000:2010.

System	Model	Requirements	Reference Standard
Compulsory Quality Assurance System in Healthcare (SOGCS)	Single Qualifying System	1,336 standards	Resolution 1441 of 2013
	Quality Information System	30 Requirements	Resolution 1446 of 2006
	Auditing for Continuous Improvement	158 standards	Resolution 1445 of 2006
Decree 1011 of 2006	Single Accreditation System	158 standards	Resolution 123 of 2013
The Integrated Management System for entities and agencies of the Capital District - NTD-SIG-001:2011 • Decree 176 of 2010 • Decree 651 of 2011 • Decree 652 of 2011 • Decree 1599 of 2005 • Decree 2482 of 2012	Quality Management System	202 requirements	Technical Standard of Quality in Public Management NTCGP 1000:2009, adopted by Decree 4485 of 2009. Colombian Technical Standard NTC-ISO 9001:2008. Quality Management System. Requirements.
	Internal Control System	29 items	Internal Control Standard Model MECI 1000:2005, adopted by Decree 1599 of 2005 Risk Management - Principles and Guidelines- ISO 31000:2010.

Source: Prepared by the author.

The need to comply with this legislation makes it necessary to have a high administrative and management capacity to implement and maintain the different requirements. In view of this situation, the current research shows the result of the design and application of a methodological proposal for integrated management that seeks to provide an alternative for the effective administration of the Management Systems of mandatory implementation in the SSEs of the Capital District of Bogotá.

To develop the proposal, we have worked on the assumption that the articulated management of the requirements as a whole maximizes the qualities of each element, its scope and effectiveness, creating a synergy that improves results as requirements are better understood and complemented, which generates greater benefits than those obtained when each system is implemented individually (Bernardo, 2015).

The conceptual framework of this research is based, in the first instance, on Bertalanffy's general system

theory (GST) (Chiavenato, 2007). Bertalanffy states that a system is a “set of interacting and interdependent elements or a group of units combined to form an organized whole” (Chiavenato, 2007, p. 411), dynamically linked by interactions, which enable the development of activities focused on the achievement of an objective, exchanging data, energy, resources or materials to provide information, energy or matter, in response to a specific purpose consistent with the objective of the system.

Secondly, the General Theory of the Administration - GTA (Chiavenato, 2007) is applied here, which examines the management of organizations and companies from the point of view of the interaction and interdependence of six variables: tasks, structure, people, technology, environment, and competitiveness, bearing in mind that “the behavior of these components is systemic and complex: each influences the other and experiences their influence” (Chiavenato, 2007, p. 11).

Finally, this research is also informed by Amartya Kumar Sen's thesis (2001) regarding the need to en-

sure a balanced distribution of the profit and benefits obtained as a result of cultural, technological, social, political and economic development in the globalized world, both between rich and poor and between different social groups in the same country, in order to mitigate the deep differences generated by an inequitable distribution of the benefits, which in turn deepens poverty and inequality, thus affecting the comprehensive, sustainable and responsible development of societies.

The resources allocated to health services have a major impact on the improvement of the quality of life of the population and on human development. This affects not only every human being individually, but it also impacts the general welfare as it advances collective coexistence (Organización Panamericana de la Salud [OPS], 2008). As Gimeno affirms (2007), investment in public health directly affects the result of indices such as life expectancy and infant mortality rate, since the programs developed through public expenditure involve determinant elements that affect the healthy development of a population.

Governments worldwide seek the implementation of Health Systems fundamentally focused on protection, promotion of health, equity and increased coverage in order to reduce the incidence of disease and mortality of the population from preventable causes (Casas, 1999). However, the Region of the Americas is the area of the world with the highest wealth inequality. This is a determining factor affecting the opportunities to access and fund basic services, which in turn have an impact on the quality of life as well as on the health standards of its population (Casas, 1999).

In this sense, Espíndola (1999) notes that the reduction in public investment in health care and its privatization poses a problem that leads to the deterioration of the health conditions of sectors that do not have the resources to access the services, resulting in a decline

in the health of the population, even more so if one takes into account that public health does not have the funding, the technology nor the personnel to provide assistance for those sectors that are not covered by privatized medical services. Therefore, it is essential to have alternatives to effectively address the administrative management of the SSEs by using in a more efficient manner the human, technological, and financial resources available.

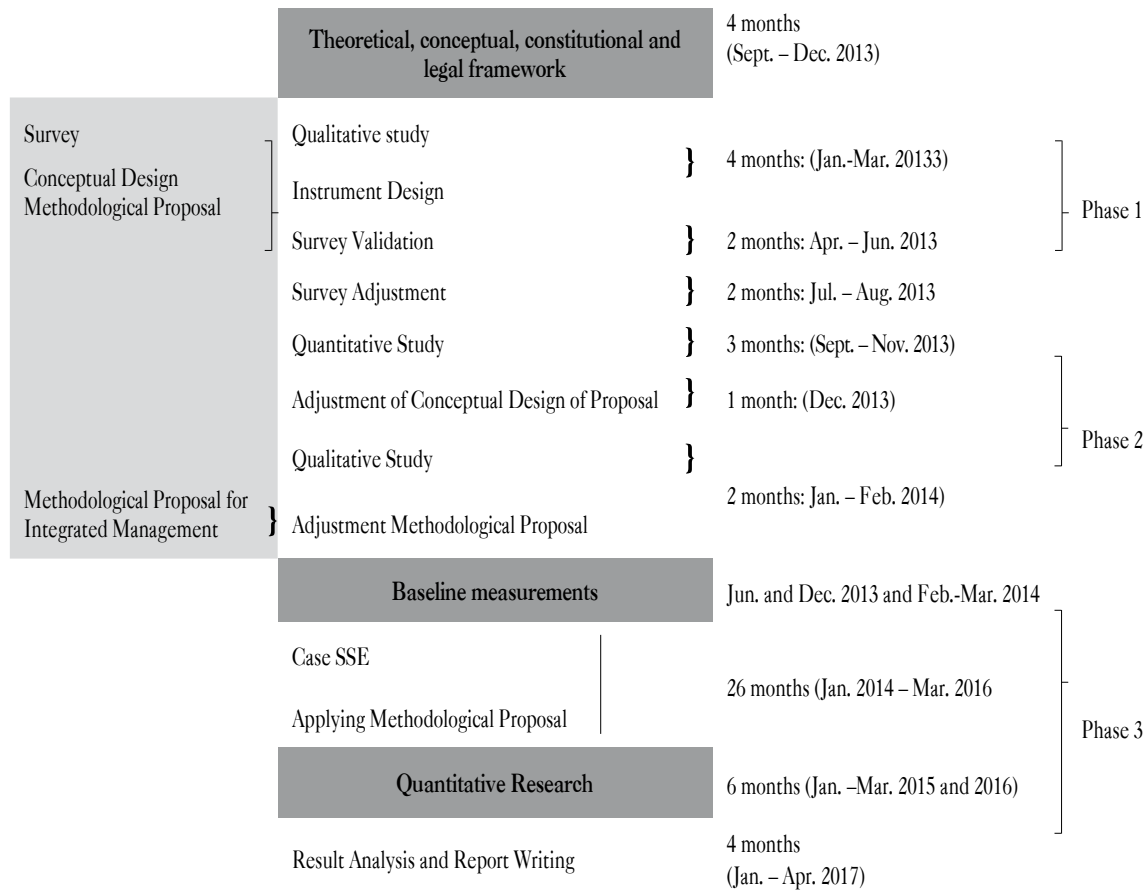
## METHODOLOGY

For this research we used a combined method (Hernández, 2014), developed in three phases in which sequential qualitative and quantitative studies were carried out.

The research implemented a pragmatic paradigm to perform a combination of methods and procedures to respond to the research questions, based on linking quantitative and qualitative data in the same study in order to obtain more useful, profound and complete information. The analysis is focused on the validity, the rigor and the control of the research methods, considering the benefits and the most relevant characteristics of quantitative and qualitative research in order to achieve the objective (Hernández, 2014).

As for the objectives of this research, this is an applied research carried out for practical purposes, to solve a problem or make decisions (Barron, 2007), that is, a practical or empirical research. This research seeks to apply or use the knowledge acquired and, at the same time, generate knowledge that can have broader social applications, verifying theory against practice and drawing direct and immediate results, in a rigorous, organized and systematic way (Vargas, 2009).

The applied methodology is outlined below:



Source: Prepared by the author.

**Figure 1.** Outline of the applied research methodology.

The first phase of the research consisted in a qualitative study that involved the collection of bibliographical information about the models of global health and the relationship between the resources invested and the results in healthcare. It included also a better understanding of the compulsory management system standards for the healthcare sector; the identification of key success factors and of articulating elements in the implementation, maintenance and improvement of integrated management systems; and the review and articulation of the applicable requirements to comply with the Integrated Management System of the Capital District (SIGD) under the proposed high-level structure to upgrade the ISO standards.

As a result of this first phase, two products were obtained: a quantitative instrument (Survey of tracer roles to identify the focal point and the key success factors), which was validated to determine its reliability, validity and objectivity (Hernández, 2009) to be applied in phase two of the research; the second product obtained during phase one is a conceptual design of the methodological proposal for integrated management that includes the articulation of the applicable requirements in accordance with the NTD SIG 001, under the high-level structure of the proposal for the upgrade of the ISO standards.

To develop the survey, the Technical Quality Standard for Public Management (NTC GP1000) was



taken as a reference as it defines the principles of the management system in order to guide entities toward better performance, considering that these principles are “framed within, integrate, complement and develop constitutional principles” (Colombia, DAFP, 2009, p. 3). The system adopts the principles eight that have been defined for quality management, based on the ISO 9000 standards, and supplements them with two additional ones, for a total of ten principles that are recommended to improve the performance of entities (Colombia. DAFP, 2009): customer focus; leadership; involvement of public officers and/or of people acting in an official capacity; process-based approach; management system approach; continuous improvement; an approach based on facts and data for decision making; mutually beneficial relationships with suppliers of goods and services; coordination, cooperation, and articulation; and transparency. To define the items of the survey, an operationalization system of variables was created taking these concepts as reference.

Phase two of the research begins with a qualitative study in which tracer roles are surveyed in order to identify the most relevant key success factors in the efficient administration of management systems, as well as the focal point of the mandatory systems in the Capital District. The survey was conducted among the heads of the Planning Advisory Offices and the Quality Coordinators of the twenty-two hospitals of the Capital District, as they are the most qualified personnel, know the management systems, and are responsible for their implementation and sustainability.

Of the 43 surveys sent to the SSEs of the Capital District, 36 were filled out, which corresponds to 84% of the surveys sent. They were consolidated and analyzed to obtain relevant information regarding the success factors to be taken into account for the efficient administration of the Management Systems of mandatory implementation, as well as to identify the focal point of the systems.

Based on the results obtained from analyzing the survey, a first adjustment of the methodological proposal of integrated management was carried out, which was then revised in a second stage of phase two through an in-depth or focus group activity (Hernández *et al.*, 2014), in order to obtain recommendations from the District’s Institutional Development Division (DDDI) of the Office of the General Secretary of the Mayoralty, the body responsible for promoting the implementation of the Capital District’s Integrated Management System (SIGD).

Phase three of this research consisted of a quantitative study developed on the basis of the results obtained from the application of the integrated management methodological proposal in one of the SSEs under consideration, the “Case SSE” in this research, to determine the level of progress in the implementation of the SIGD and conduct a comparative analysis of the performance at the Case SSE before and after the implementation of the proposed integrated management model. This was implemented in only one of the twenty-two State-Owned Social Welfare Enterprises (SSEs) of the Capital District.

The implementation of the proposal was carried out in the following stages:

- Socialization of the proposal and of the methodology to be applied with the management team of the Case SSE.
- Base line measurement of the SIGD at the Case SSE.
- Preparation of the necessary conditions to implement the proposal at the Case SSE
- Accompaniment of the implementation of the proposal with monitoring and periodic evaluation of progress and results.

The first part of the quantitative study carried out in phase 3 was to establish the baseline measurement of the SIGD for the Case SSE, which included the following activities:

- Identification of SSEs in the Capital District network with tools for the implementation of the Integrated Management System required by the NTD-SIG-001:2011. This measurement was performed taking as a reference the diagnosis made by the DDDI as of June 2013 and it was established that 55% of the SSEs of the Capital District had a system or mechanism for the implementation of the NDT SIG:001:2011. It is important to mention that the Case SSE had no tool for the implementation of the SIGD as of June of 2013.
- Recording of the results of the assessment carried out by the DDDI of the Office of the General Secretary of the Mayorality to compare them with the implementation of the NDT SIG:001:2011, for the twenty-two SSEs of the Capital District, which revealed that, as of December 2013, only 58% of the SIGD had been implemented at the Case SSE. (Colombia, Secretaría General de la Alcaldía Mayor, 2014).
- Assessment of the level of maturity of the quality management system at the Case SSE by applying the Spanish Standard UNE 66174:2010, Guide for the assessment of management system standard for the sustained success of an organization according to UNE EN-ISO 9004:2009 (AENOR, 2010), an activity that was carried out with the participation of the management team of the Case SSE from February to March 2014, showing an initial level of maturity of 1.24 as of December 2013 on a scale from 1 to 5.

Preparation of the necessary conditions in the “Case SSE” for the implementation of the proposal consisted of drafting and approving the framework documents used to address the methodological proposal. The documents included the analysis of the entity’s context and the formulation and approval of the strategic platform, which took into account the need to have a strategic objective to “ensure the implementation, maintenance and improvement of the Integrated Management System with an emphasis on Accreditation”.

The implementation of the integrated management methodological proposal was accompanied from January 2014 until March 2016, taking into account the guidance for its implementation, analyzing difficulties, and identifying the factors that determined the viability and applicability of the model in other contexts.

It is important to consider that the District Agreement 641 of 2016 was not in force during the period of implementation. This Agreement reorganized the Capital District’s healthcare and the twenty-two SSEs were placed under the control of four Integrated Health Service Subnets.

## RESULTS AND DISCUSSION

The results obtained show that for the administration of the mandatory Management Systems in the Capital District the fundamental and most important and relevant success factors (i.e., those rated 5 in the survey) are as follows: 97% indicated clear institutional goals that guide the implementation of the applicable management systems and 86% indicated permanent and planned personnel development, according to the different activities, to improve those skills that most affect the quality of service.

Other factors ranked as important were knowledge of the objectives and goals for compliance with the applicable management systems on the part of senior management of the organization (83% of the respondents); improvement of work environment (81%); and periodic monitoring and evaluation of the objectives and goals for the compliance management systems on the part of senior management (78%).

Other aspects that were considered important and relevant (by 75% of the respondents) in the management systems to be implemented were the need to follow-up the efficient use of resources, to report results to senior management, and to improve internal communication between the management level and the leaders of process.

The survey provided for the possibility to mention factors that the respondents considered essential in the administration of the mandatory Management Systems in the Capital District and had not been listed in the survey. These responses were consolidated and tabulated and the findings showed that organizational culture, with 22% of respondents bringing it up, was the most mentioned recommendation. This factor had already been considered as a cross-cutting element in the conceptual design of the proposed integrated management. The fact that it was brought up by the respondents strengthened its definition, further reinforced by the notion that transforming organizational culture should include, as important aspects to its consolidation, the development of competencies, as well as of responsibility and commitment.

Other key factors mentioned by the respondents and that had not been included in the survey were commitment from top management (10%), definition of responsibility and authority lines (10%), and communication of successful experiences within the entity (8%).

To identify the focal point of the management systems, the high-level structure elements used in the proposal to update ISO standards are taken as the initial input. This proposal represents a harmonizing instrument for management standards aiming at consistency and alignment of standards through the unification of the structure, the basic text, and key definitions (Forbes, 2014).

In the conceptual design of phase 1 of this integrated management research, these elements were taken as part of the approach to develop, under the Plan-Do-Check-Act (PDCA) cycle, a four-step processes approach to management (AENOR, 2010), which, when properly articulated, facilitates the generation of value. "The desired result is achieved more efficiently when the activities and the related resources are managed as a process" (Colombia). [DAFP], pp. 3-4).

In order to identify the enriching elements of this focal point, in the second part of the survey a question is included that requires choosing among the twelve mandatory systems for the SSEs of the Capital District (NTD SIG 001) and the Risk Management System - Patient Safety Policy the system that could be considered as the focal point.

The results show that for 94% of respondents the Single Accreditation System should be the focal point for the other systems, followed by the Quality Management System with the 64% and the Quality Information System with 28%.

Considering the importance of achieving results in health processes that improve the quality of life of the target population by means of appropriate interventions in the determinants that affect the health and living conditions, as well as of the relevant and timely implementation of education, information and health promotion, prevention, diagnosis, treatment, and rehabilitation of patients (Colombia, Congreso de la

República, 1993), the proposed methodology includes and emphasis on the implementation of the Single Accreditation System (SAS), which is consistent with the results obtained in the survey.

However, the SAS is not adopted as the focal point of the integrated management proposal because this system, as it consists of a “set of entities, standards, support activities, and self-evaluation, improvement and external evaluation procedures, designed to demonstrate, evaluate, and verify compliance with higher quality levels” (Colombia, Congreso de la República, 2006) in the provision of health services, is maximized by the high-level structure, which contains a systemic approach that enables the alignment of the other standardized systems by addressing aspects such as structure, content, and characteristics of the requirements of different management systems. This is considered a relevant factor to facilitate the integration and interrelation of these requirements, which are classified into four types: “identical, integrable, parallel and different requirements”

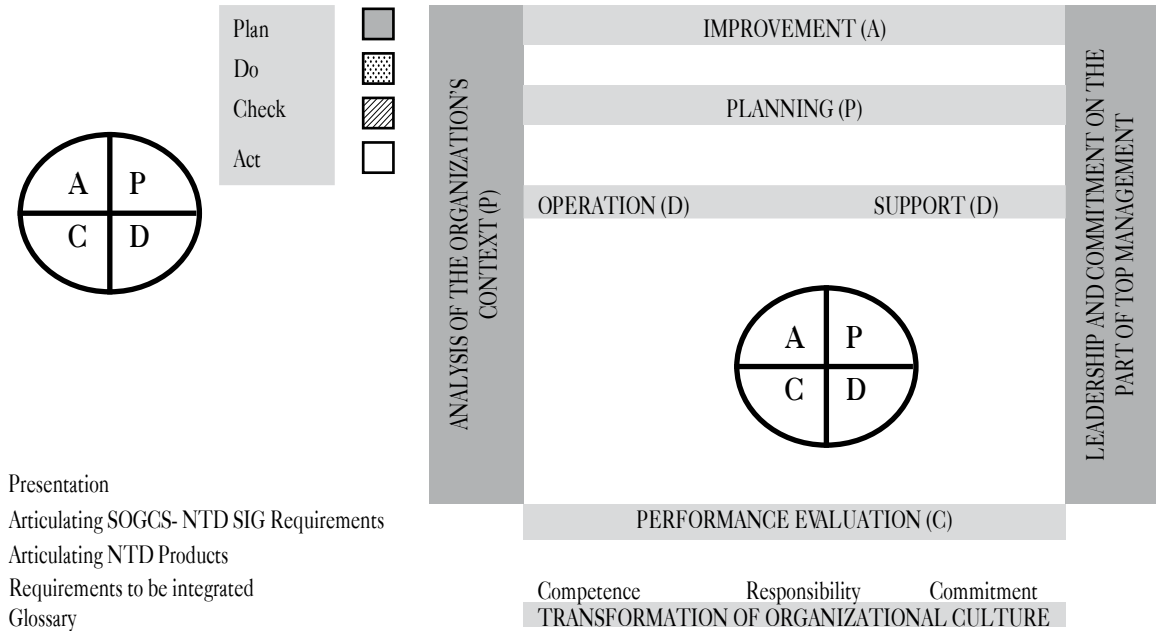
In the construction of the methodological proposal for integrated management, such aspects as leadership and commitment from top management, as well as the transformation of organizational culture, are defined as cross-cutting issues, essential for the implementation and appropriation of the integration project (AENOR, 2010). The guiding and dynamic role of top management in the entity’s performance is taken into account, which depends on its ability to articulate the strategic direction with the entity’s mission, the applicable management systems, and the organizational culture (Tejada, 2009).

With the information obtained, two adjustments were made to the methodological proposal for integrated management. The first one used the results of the survey carried out in the twenty-two SSEs of the Capital

District as input. The second was carried out in accordance with the recommendations and contributions obtained during the in-depth or focus group activities (Hernández, 2014) carried out with the technical benchmarks of the Integrated Management System (SIGD) of the District’s Institutional Development Division (DDDI) of the General Secretary’s Office of the Mayor, as the body responsible for promoting the implementation of the SIGD.

The following are the most relevant observations, contributions and recommendations obtained from the in-depth activities:

- The expected products from the implementation and maintenance of the NTD SIG 001 should be included, using the dimensions through which accreditation standards (approach, implementation and outcome) are developed, in order to ensure that the integrated management proposal is consistent with the DDDI guidelines.
- The terms and definitions used for the survey should be provided so that those implementing the methodological proposal for integrated management are aware of the terms used to design it.
- Guidelines for the implementation of the methodological proposal should be provided in order to identify the focal points and the success factors that must be taken into account for its implementation.
- The integral management model should use the guidelines for the implementation of the SIGD issued by the DDDI as guiding tool for the implementation, improvement and sustainability of the applicable requirements.



Source: Prepared by the author.

Figure 2. Adjusted Methodological Proposal for Integrated Management

The methodological proposal for integrated management resulting from adjustments made in phase two of the research consist of the following sections, which include the results of the survey and the inputs obtained from the in-depth or focus group activities:

- Presentation: This section includes the introduction, general objective of the proposal, and a breakdown of the sections that make up the proposal.
- Glossary: The terms and definitions that must be taken into account to understand the conceptual context on which the proposal is built.
- Methodological Proposal: This section shows the conceptual map of the proposal and the guidelines for its implementation, including the Plan-Do-Check-Act (PDCA) cycle; process management; analysis of the internal and external

factors that have an impact on the organization; leadership and commitment from top management; transformation of the organizational culture; success factors for the effective administration of management systems; emphasis on the Single Accreditation System; and reference to the SIGD guidelines as tools to guide the implementation, improvement and sustainability of the applicable requirements.

- Articulation of requirements: In this section, the proposal for the articulation of the requirements of the different standards that are part of the NTD SIG 001 is put forward, including definition, structure, policy, attributes, principles, and the alignment of the requirements, in accordance with the components of the high-level structure, whereby the purpose and essential elements of each of the components of the structure are listed.

- Articulation of NTD SIG products: In this section, the products that must be documented and implemented to comply with the NTD SIG 001 are defined on the basis of the Single Accreditation System (Approach, implementation, and outcome).
- Requirements to be integrated: The requirements to be integrated are listed, taking into account the management system and the policy of reference.

In order to assess its performance and applicability, the following measurements were carried out during the implementation process of the methodological proposal for integrated management at the Case SSE:

- Level of progress in the implementation of the Integrated Management System based on the results obtained at Case SSE from the annual assessment of the implementation of the strategic platform, which assesses compliance with NTD SIG:001 standards.
- Level of progress in the implementation of the Single Accreditation System in accordance with the self-assessment methodology established by

the Ministry of Health and Social Protection, the results of which are part of the Management Plan established through resolution 743 of 15 March 2013.

- Results of the assessment of the compliance with the Management Plan established through Resolution 743 of 2013, which uses a rating scale from 0 to 5, whereby a satisfactory rating ranges from 3.5 to 5.0 (Colombia, Ministry of Health and Social Protection [MSPS], 2012)
- Assessment of the Level of maturity of the Integrated Management System at the Case SEE through the application of the Spanish Standard UNE 66174 (Guide for the assessment of management system standard for the sustained success of an organization according to UNE EN-ISO 9004:2009).
- Results of the follow-up of the implementation of NTD SIG 001:2011 by the DDDI of the Office of the General Secretary of the Mayorality of Bogotá.

The following results were obtained from these measurements:

**Table 2.** Results of the performance assessment of the integrated management proposal.

Concept	Base Line Dec 2013	Result Dec 2014	Result Dec 2015
Level of Progress in the Implementation of the Integrated Management System	Does not apply	91%	98%
Level of Progress in the Implementation of the Single Accreditation System	2.02	2.49	3.08
Evaluation of compliance with the Management Plan	Does not apply	4.89	4.90
Level of maturity of the Integrated Management System (UNE 66174)	1.24	1.71	2.23
Follow-up of implementation of NTD SIG 001:2011	58%	99%	99%

Source: Prepared by the author.

The implementation of the integrated Management System at the Entity achieved a 91% compliance in the first year and a 98% in the second year compared to the requirements of the NTD SIG:001 (Colombia, Secretaría General de la Alcaldía Mayor, 2015), obtaining thus an improvement in compliance with the accreditation standards for the healthcare sector with a score of 2.02-3.08, on a scale from 0 to 5 (Colombia, [MSPS], 2006), which represents an important step forward in achieving high levels of quality in the provision of healthcare services.

This result is consistent with the score obtained for the Case SSE in the Management Plan established through Resolution 743 of 2013, which obtained a score of 4.89 in the first year and of 4.90 in the second year of assessment, whereby the maximum possible score is 5.

Favorable results were also obtained in the measurement of the level of maturity as per UNE 66174 of the Integrated Management System, which indicated that the applied methodology is consistent with the purpose of achieving an effective implementation of the requirements.

A comparative analysis of the results of the follow-up of the implementation of the NTD SIG 001:2011 by the DDDI of the Office of the General Secretary of the Mayorality of Bogotá clearly shows that, as of December 2015, the Case SSE ranked second among the SSEs in the Capital District, with 99% compliance (Colombia, Secretaría General de la Alcaldía Mayor, 2015), a result that indicates an improved performance of this entity in complying with mandatory standards, especially when the baseline before the implementation of the integrated management proposal showed a 58% compliance for the Case SSE.

The compliance average for the twenty-two District SSEs was of 88% and the lowest result obtained on

this scale was of 63% (Colombia, Secretaría General de la Alcaldía Mayor, 2015), a result that ranks the Case SSE among those with a high standard of performance.

## CONCLUSIONS

For this research, two tools were designed and validated to facilitate the collection of quantitative and qualitative information of great value to identify three elements: the success factors in integrated management; and the mechanisms to articulate the management systems with the recommendations for effectively addressing the implementation of several standardized management systems under a comprehensive management scheme. This last element poses a special challenge for any organization aspiring to ensure a coordinated operation that integrates the different applicable requirements in a coherent and effective way, ensuring the achievement of its objectives and targets.

The results obtained allow us to conclude that the principles of quality management, as they are embedded in the development of the Plan-Do-Check-Act (PDCA) cycle, become success factors for the administration of management systems. Accordingly, in order to achieve management efficiency, it becomes a priority to address the following issues:

- A clear definition of institutional goals to guide compliance with the applicable management systems from the strategic level; in order to carry this out, the system management must be articulated with the strategic planning of the entity as the core element of the operation and decision-making process within the organization.
- Ensuring that the senior management of the organization has full knowledge of the objectives and goals to comply with the applicable management

systems, since the degree of participation and commitment of senior management in the coordination of the organization as a system ensures coherence in the direction of the work team, guaranteeing a unity of purpose and strengthening the ability to potentiate the results by promoting that all participants within the organization actively participate in the achievement of the expected results.

- Periodic monitoring and evaluation of the objectives and goals, to be carried out by senior management, to comply with the management systems, which involves improving the understanding of the management system at all levels of the organization and taking advantage of their ability to interrelate elements in order to achieve the optimization of the available human, technological, and financial resources.
- Improvement of internal communication between the management level and the leaders of the process. This has an impact on the strength of the team work within the organization, as well as on raising a greater awareness of the importance of their contribution to the achievement of the goals and expected results.
- Improvement of the organizational culture centered in the permanent and planned development of staff competencies; the promotion of the responsibility and commitment; and greater motivation and better performance of the participants, who are the ones in charge of turning tactics and strategies into results.
- Design communication strategies within the institution to identify successful experiences that can be used for other institutional processes; analysis and decision-making spaces, such as institutional committees and the working groups, which can be optimized for this purpose.

- The information obtained in the follow-up to the implementation of the requirements must be socialized, ensuring that the participants know the obtained results, encouraging good practices through acknowledgement.

In the process of identifying the focal point of the systems, it was evident that a methodology had to be adopted which enabled the articulated and inter-related management of the requirements, prioritizing their characteristics, similarities, complementarities and differences, in order to achieve their coordinated and coherent management. This can be accomplished by addressing the elements of the proposed high-level structure for the update of ISO standards, using a processes management approach, since the results obtained show that this structure enables an enhanced understanding of the requirements and the ability to respond in a unified manner, facilitating the incorporation of new requirements or characteristics into the integrated management process.

Because we are dealing here with healthcare institutions, it is of vital importance to identify standards and indicators that are suitable to achieve higher levels of quality in the provision of healthcare services. The Single Accreditation System (SAS) provides useful elements for this purpose and it is essential to emphasize compliance with these standards in the implementation of integrated management systems. This emphasis does not imply that the SAS acts as the focal point of the systems because it lacks a systemic approach that would enable the alignment of the other systems under the development of the Plan-Do-Check-Act (PDCA) cycle. The proposed high-level structure for the upgrade of the ISO standards is highly versatile and consistent and can be applied as a focal point as it facilitates the inclusion of the accreditation standards.

Leadership and commitment from top management are also necessary as a cross-cutting element for the



implementation of the management systems, as this instance guides and streamlines the operation of the entity and must ensure consistency between the strategic direction, the mission of the entity, the applicable management systems, and the organizational culture, in order to achieve the planned objectives.

The integrated management model with emphasis on Accreditation in Healthcare improves the effective administration of the mandatory management systems in the State-Owned Social Welfare Enterprises (SSEs) of the Capital District, increasing their performance and ability to achieve results regarding the provision of healthcare services, which is evidenced by the results obtained for the indicators of the management plan required by resolution 743 of 2012 at the Case SSE, which establishes strategic indicators for clinical and healthcare management, financial and administrative management, and management results.

The measurements of the performance of the methodological proposal for integrated management indicate that it can be applied to articulate the SOGCS and the SIGD in the SSEs of the Capital District for their effective administration, since this enables a dynamics that is tailored to the needs, changes and challenges of individual SSEs, which facilitates a streamlining of efforts in a way that is consistent with the expected results.

The results of applying the methodological proposal for integrated management indicate also positive effects with regards to its capacity to provide an alternative to the effective implementation and administration of the integrated management system as required by the NTD SIG:001, keeping a balance with the requirements of the healthcare system to ensure compliance with the SOGCS.

The application of the methodological proposal for integrated management showed that it is an easily ap-

plicable tool as it provides prioritization criteria, articulated requirements, and clear and achievable products using simple guidelines that allow an optimization of the available resources and a potentiation of efforts.

Therefore, the designed methodological proposal that has been presented here as a research result provides an alternative to enhance the administration of the systems required by legal mandate in the SSEs of the Capital District, promoting improvement in the provision of healthcare services in the Capital District, under an integrated management model, which enhances the ability to comply with the applicable requirements, providing a set of recommendations to guide the implementation, administration, and sustainability of the integrated management model.

Finally, it can be inferred that, the higher the level of integration, the greater the perceived benefits will be. This is a matter that could be addressed in subsequent research to measure the impact on the efficiency, effectiveness and sustainability of integrated management systems from an understanding of the way the organization works to achieve its fundamental objectives under a comprehensive management scheme.

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