

## Comprehensive System of Management of the Quality, Environment and Occupational Risks in the Health Sector

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**Abstract:** Integrated management systems (SIG) arise as an improvement alternative that allows health sector companies to achieve their objectives in line with the expectations and needs in terms of quality, safety and health at work (TSS) and medium environment, its internal and external stakeholders. The present study tries to reveal how these companies have carried out the process of incorporating SIG, what their conception about the benefits of the same and also, reveals if at present these companies carry out integrated audits to guarantee the effectiveness of the system. Among the findings is that if the SIG is not incorporated in the appropriate way can generate contradictory effects in health companies as there may be incompatibilities between the requirements of quality, TSS and environmental management.

**Key words:** Integrated management system, continuous improvement, quality, TSS, environmental management, SIG

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### INTRODUCTION

At present, Colombian health sector companies are immersed in highly competitive environments, since the sector in which they develop their activities is one of the most projected in national growth (Soler and Ortiz, 2014). Hence, that more and more companies are willing to respond in an assertive and timely manner to the requirements and needs of the market.

However, companies in the health sector must not only face the challenges of a competitive market but must also address various issues that are associated with the development of their operations such as high levels of job turnover, poor workmanship, changes in workplaces, high labor pressure, changes in operating systems, environmental regulations and a shortage of material resources. These problems suggest that these companies integrate and articulate strategies that allow them to develop good management practices and thus meet the needs of their internal stakeholders (employees, shareholders) and external stakeholders (clients and society).

One of the strategies that can be implemented by Colombian health companies is the incorporation of an integrated system of quality management, environment and occupational risks, hereinafter SIG which is a systematic method of controlling activities and processes

that allow companies to achieve their objectives, achieve desired results (Garcia, 2006) and ensure compliance with policies and regulatory actions, aimed at the continuous improvement of its management.

The SIG is made up of three modern pillars, based on ISO 9001, ISO 14001 and ISO 18001 which correspond to quality, environment and occupational hazards, respectively (Gaureanu *et al.*, 2016). These pillars, when combined can generate synergy and efficiency in the Contributing to the simplification of system requirements, reducing duplication in policies and procedures and thus a substantial reduction in costs (Gonzalez, 2011). It is worth noting that the effectiveness of the SIG in the company depends to a great extent on the notion that it has about its management, ideally that the company internalize a type of management by processes that is articulated to the systemic approach SGs proposed by the ISO standard, once this has been achieved, the company can develop a flexible structure, adaptable to change and can be oriented towards the achievement of its objectives based on the generation of added value.

The present study aims to analyze if at present, some Colombian health companies have incorporated within their cooperative reality an integrated management system. From there, the advantages and disadvantages of such a system will be investigated if the companies have a monitoring and control plan that will allow them to

measure the scope of the SIG and also if these companies consider that the SIG has contributed to the continuous improvement of its processes.

## MATERIALS AND METHODS

Of the 257,835 economic units created in Colombia in 2015, 17, 587 correspond to the health sector, this means that the growth of this sector is high and that at present in the national territory there are a lot of companies. For the purpose of the present investigation, a sample was selected under the Bietapico method which is part of the method of sampling by clusters and is based on the random selection of a determined number of elements in this case of companies.

A total of 27 companies from the health sector, located in the Department of Atlantico, Colombia were sampled. The selection criteria for these companies were centered on the size (median), the market trajectory 10-15 years) and the type of operations it carries out (provision of various health services).

A closed questionnaire, under the Likert scale was structured with 6 key questions about SIG, its monitoring, effectiveness and evaluation. After the collection of the answers of these companies, an objective analysis was carried out which exposes in a graphical way to facilitate the understanding of the data.

It is important to emphasize that the names and exact location of the companies are not explicitly presented in the study, in order to safeguard their identity in accordance with Law 1581 of 2008 Habeas data.

## RESULTS AND DISCUSSION

One of the questions asked to health companies was to check if they currently have incorporated into their management system the ISO 14001, OSHAS 18001 and ISO 9001 standards which according to, several studies have shown to increase competitiveness and improve the performance of enterprises (Almeida *et al.*, 2014; Gonzalez, 2011; Calderon-Hernandez *et al.*, 2010; De Olive *et al.*, 2010). The responses of the companies are shown in Fig. 1.

According to the results of the survey, 67% of companies today have incorporated ISO 9001, 14001 and OSHAS 18001 into their management system; 11% express a neutral and indifferent position on the subject, therefore, do not affirm or deny whether they currently have implemented such a system, finally, it is evident that 22% of companies do not have a SIG. When companies prefer to run their management systems separately, they can incur high economic costs and the investment of

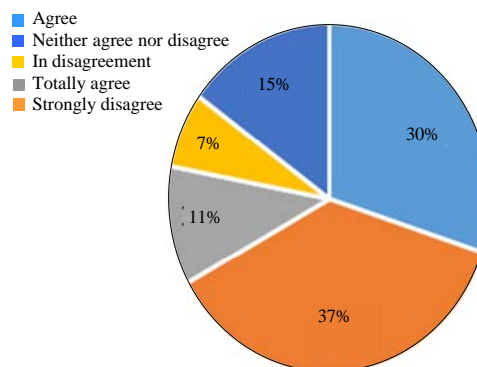


Fig. 1: Incorporation of SIG (The company has incorporated into its management system the ISO 14001, OHSAS 18001 and ISO 9001)

considerable periods of time, however, it is necessary to emphasize that to integrate these systems is not a simple task, there are great risks and disadvantages which may arise from this process, for example, high resistance to change by employees (Vazquez and Rodriguez, 2012), misrepresentation of the strategic purpose of the management system, inadequate formulation of change and generally difficulties in organizational inertia (Ferguson-Amores *et al.*, 2002).

However, the effective incorporation of the SIG brings to the companies great competitive advantages as it is the case of the improvement in the allocation of resources, effectiveness and efficiency in OSH actions (safety and health at work), compliance with the legal environment and great opportunities for improvement, just to name a few benefits.

However, when the participating construction companies were asked if they considered that the integrated management system is a tool that allows them to normalize processes, promote a culture of quality, increase the satisfaction of beneficiaries and generate trust in processes, they responded (Fig. 2).

According to the results of the survey, 52 and 26% of health companies fully agree and agree, respectively, that SIG is a tool that allows them to normalize processes, promote a culture of quality, increase the satisfaction to the beneficiaries and generate confidence in the processes that is to say in a 78% the companies emphasize the importance and the positive aspects of the SIG but on the other hand, of companies disagree with this statement and the remaining 7% is indifferent.

With respect to process standardization, SIG allows companies to reduce duplication of activities and therefore, costs as well, helps to optimize their practices, facilitates training and development of collaborators

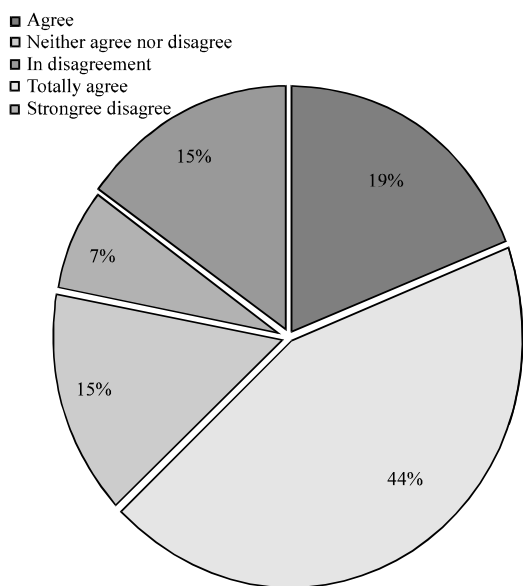


Fig. 2: Management tool (Do you consider that the integral quality system is a management tool that allows the company to normalize processes, promote a culture of quality, increase the satisfaction of the beneficiaries and generate trust in the processes?)

(Sanz-Calcedo *et al.*, 2015; Formoso *et al.*, 2011). And encourages the company to focus on the most important aspects for its continuous improvement.

With respect to the promotion of a culture of quality, SIG allows quality to become a “way of life” (Malhi, 2013) for each and every one of the employees of the company, firstly because from the direction these are motivated and sensitized in relation to the benefits of the new system such as the reduction of workload and optimization of work secondly because employees are aware that from the incorporation of this system can increase the management of their safety and health which allows them to work in a safe company which is constantly thinking of safeguarding their labor rights.

With respect to the increase in beneficiary satisfaction and the generation of trust, it is clear that if the company applies a SIG it is contributing to its stakeholders feel at ease with their processes which has a direct impact on their reputation and credibility in the medium. For example, if the company within its SIG contemplates ISO 14001, it is showing itself as a socially responsible organization that is likely to introduce clean production practices into its operation that contribute to protecting the environment.

Indeed, the companies questioned were asked if, considering that implementing a SIG brought benefits to

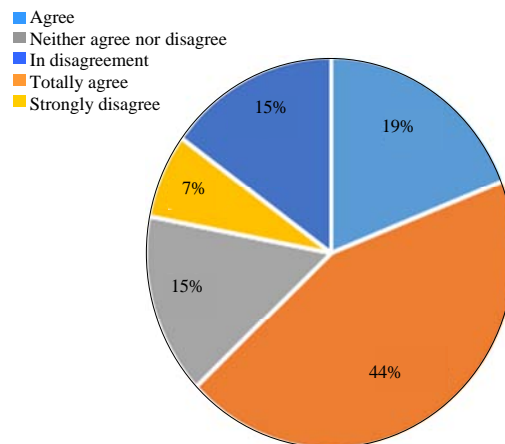


Fig. 3: Impact image SIG (Implementing a SIG brings benefits to the company, since, it gains positioning, image, trust and transparency in the market)

the company, since, it gains positioning, image, trust and transparency in the market, the answers are evidenced in Fig. 3.

The 63% of the participating companies assure that SIG brings benefits to the extent that it helps to increase their image, confidence and positioning in the market, however, 30% disagree with this position and 7% is indifferent which makes clear a split position regarding the impact of the SIG on the image and good name of the companies.

However, it is clear that any process that is incorporated in companies must have monitoring, evaluation and control, so, companies can corroborate whether the change implemented was effective or on the contrary, hurt its operation, one way to carry out this process when the SIG is incorporated is through external and internal audits which in turn are simplified (Badreddine *et al.*, 2009), since, no more than three different management systems should be audited but a single system integrated.

The companies participating in the study were asked whether they currently use audit as a tool for the systematic, documented, periodic and objective evaluation of the proper functioning of their SGI, the responses are shown in Fig. 4.

The 52% of companies that have incorporated a SIG, they assure to use audits to guarantee the operation of said system, nevertheless, it is possible to be emphasized that 37% of these companies don't know if this action is carried out which is worrisome, since, if these

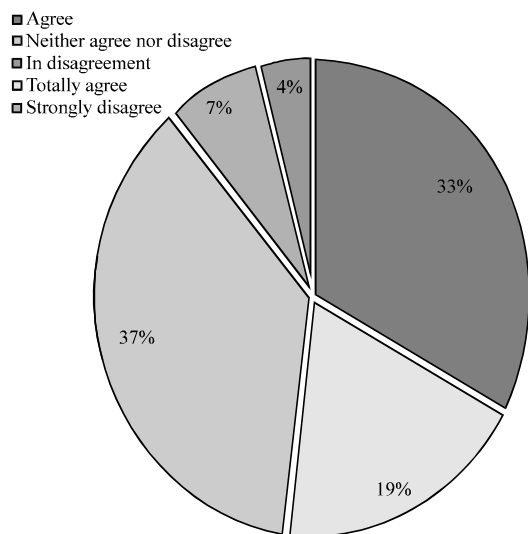


Fig. 4: Use of SIG audit (Does the company use audit as a tool for the systematic, documented, periodic and objective evaluation of the proper functioning of the SIG?)

companies have incorporated a SIG but don't evaluate it can't guarantee its effectiveness and continuous improvement.

Audits of the environmental management system as well as the OSH audits and quality management audits are carried out at planned intervals (Skipper, 2009) and suggest various evaluative and professional formats specialized in the subject, however with the integration of These systems in a single integrated system, the audit becomes less complex, shorter, less expensive in addition, encourages teamwork leading to process improvement.

It is clear that the integration of management systems allows the continuous improvement in companies, since, they may be more responsible in terms of quality, environment and SST (Farahani and Chitsaz, 2010), however, it is necessary that, in this process, The company also introduces the practice of innovation (Maier *et al.*, 2015) which ensures the performance and evolution of the SIG.

According to the study, 64% of the participating construction companies consider that the SIG contributes to the continuous improvement of the company; 19% do not support or refute this statement and the remaining 19% express that this system does not contribute to this end. These data are presented in Fig. 5.

It should be noted that the company must internalize a systematic approach in its management and must analyze the complexity of each of its systems of quality management, environmental management and SST

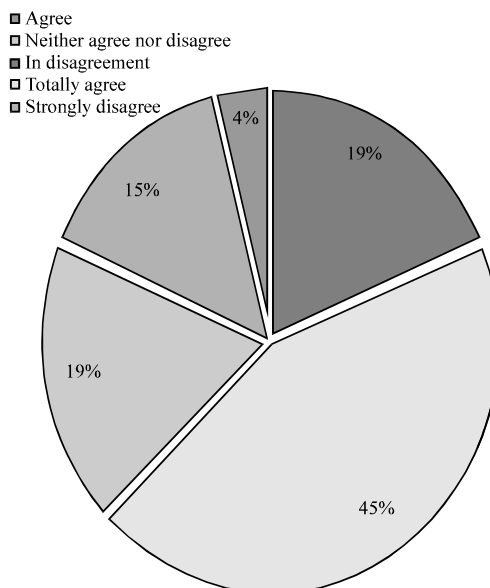


Fig. 5: SIG-continuous improvement (Do you consider that the SIG contributes to the contributes improvement of the company?)

management (Viloria *et al.*, 2016; Chandra, 2013) before integrating them in this way ensure that the new SIG is articulated with its objectives and the strategic direction and thus, can improve its profitability, productivity and therefore, competitiveness in the market.

## CONCLUSION

Integrated management systems allow companies in the health sector to systematically control each and every one of their activities while allowing their internal and external stakeholders to feel satisfied and benefited by their actions in the field safety and health at work (OSH), quality and environmental protection.

As a result of the study, it was found that, at the present time, these companies have not fully internalized a SIG, to the extent that some are unaware of the benefits and scope of the SIG and likewise, most of these companies have not incorporated or are unaware of the audit process as a key element for monitoring, control and evolution of the SIG.

It is concluded in the same way that SIG, if not incorporated in the proper way can generate contradictory effects in construction companies as there may be incompatibilities between the requirements of quality, TSS and environmental management. Hence, the importance that the company strategically proposes this transformation in its management, based on innovation and as a projection the continuous improvement.

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