

Corporate Sustainability with the Contribution of Occupational Safety and Health

Sostenibilidad empresarial con la contribución de la seguridad y salud en el trabajo

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Abstract

Corporate sustainability has established itself as a fundamental pillar in the business world, providing companies with a competitive edge and adding value not only to the organizations themselves but also to their stakeholders and society at large. The primary aim of this research is to determine how advancements in workplace safety and health contribute to the sustainability of companies in Ecuador. Within this framework, the relationship between workplace safety and sustainability is of paramount importance. Through an in-depth literary review on corporate sustainability, with a particular emphasis on industrial safety, this study delves into the influence of workplace safety and health measures on business sustainability in Ecuador. Despite having a solid regulatory framework in place, a concerning non-compliance with regulations is detected in both the public and private sectors. Furthermore, there's a noticeable gap in the training and awareness of workers regarding their rights when facing risks associated with their tasks. The conclusions highlight a significant disparity between theory and practical application, emphasizing the efficiency of management systems in Occupational Risk Prevention when properly implemented.

Key words: Sustainability; Companies; Industrial Safety; Occupational Risk.

Resumen

La sostenibilidad empresarial se ha consolidado como un pilar fundamental en el ámbito corporativo, brindando a las empresas una ventaja competitiva y aportando valor no solo a las organizaciones, sino también a sus stakeholders y a la sociedad en su conjunto. El objetivo principal de esta investigación es determinar cómo los avances en seguridad y salud laboral contribuyen a la sostenibilidad de las empresas en Ecuador. En este marco, la relación entre seguridad laboral y sostenibilidad es de suma importancia. A través de una profunda revisión literaria sobre la sostenibilidad corporativa, con un énfasis particular en la seguridad industrial, este estudio explora la influencia de las medidas de seguridad y salud laboral en la sostenibilidad empresarial en Ecuador. A pesar de contar con un marco normativo sólido, se detecta un incumplimiento preocupante de las regulaciones, tanto en el sector público como en el privado. Además, se nota un déficit en la capacitación y sensibilización de los trabajadores acerca de sus derechos frente a los riesgos asociados a sus labores. Las conclusiones destacan una discrepancia significativa entre la teoría y la aplicación práctica, subrayando la eficiencia de los sistemas de gestión en Prevención de Riesgos Laborales cuando se implementan correctamente.

Palabras clave: Sostenibilidad; Empresas; Seguridad Industrial; Riesgo laboral.

INTRODUCTION

Sustainability represents a cardinal challenge for today's organizations, framed in three essential dimensions: economic, social and environmental. This reality has led to the development of a culture of safety at work not only as an ethical requirement but also as a competitive differentiator in the corporate landscape (Lee, 2018). Organizations that identify themselves under the prism of sustainability are those that demonstrate full awareness of the repercussions - both material and immaterial - that their actions generate in their spheres of influence, whether direct or indirect. These entities do not limit themselves to evaluating opportunities and threats in the market; they transcend this vision to analyze, with a critical and proactive lens, the social, environmental and economic impact that their operations exert on the territory in which they operate (Sarango-Lalangui, 2018).

Fechete & Nedelcu (2019) argue that, in order to achieve business sustainability, organizations must manage their resources in a way that ensures positive results not only in the short term, but essentially in the long term. This perspective transcends the traditional idea that a company's performance is measured solely in terms of maximizing results; rather, it proposes that it is crucial to consider how an organization contributes to optimizing the cost-value relationship. In a similar vein, Plua *et al.* (2022) argue that understanding corporate sustainability implies recognizing the relevance of companies, regardless of their size - from microenterprises to large corporations - in the socioeconomic fabric of countries. These organizations are not only essential drivers of growth and development by providing employment and income for the population but also represent key nodes in terms of investment, research and innovation. To these considerations, it is imperative to add the synergy between employers and workers, who, by working together, enhance the creation of benefits and the generation of value derived from their labor efforts.

The industrial processes of organizations have the ethical imperative of aligning their operations with the principles of sustainable development, which implies a rational and considered management of natural resources. This management not only seeks to conserve and restore such resources but also to improve and promote their responsible

use, with the purpose that both current and future generations can benefit from them fairly and equitably, thus ensuring the continuity of life in all its expressions (Badii *et al.*, 2017).

In this direction, companies are adopting, with growing awareness, plans and programs aimed at safeguarding their human capital against the multiple risks to which they are exposed. Thus, rigorous controls are established to prevent accidents and promote safe working environments. According to Morales (2019), the dimensions of industrial safety, occupational health and environmental care are not only essential for the integrity of the company but have also been consolidated as crucial indicators of sustainability. These indicators, in turn, significantly influence the perception and confidence of investors towards organizations.

Nonetheless, there are still serious health and safety concerns in the Americas. Data from the International Labor Organization (ILO, 2016) reveal that there are 11.1 fatal accidents per 100,000 workers in industry, 10.7 in agriculture and 6.9 in the services sector. Vital sectors for the regional economy, such as mining, construction, agriculture and fishing, are among those with the highest accident rates. Against this background, the present research aims to discern how the promotion of occupational health and safety can contribute to the achievement of business sustainability in the Ecuadorian context.

METHODOLOGY

A qualitative and descriptive study was carried out, based on the analysis of various research studies both internationally and specifically in Ecuador, focused on the relationship between occupational safety and health and its contribution to corporate sustainability. From a methodological approach, this essay is structured around a comprehensive literature review, where the contributions of multiple authors in the field are explored. For this purpose, relevant information was collected and synthesized from scientific articles, which have been published in journals of global or regional relevance, with the fundamental purpose of adequately contextualizing the key concepts related to the topic in question.

During the development of this research, a rigorous ethical commitment was adopted to guarantee the integrity and quality of the information collected and analyzed. All sources consulted mainly scientific articles from globally and regionally recognized journals, were duly cited and referenced, respecting copyright and avoiding any form of plagiarism. In addition, a careful selection of the literature was made, giving priority to recent and relevant research, thus ensuring the relevance and timeliness of the data. Special care was taken to avoid bias and to present a balanced and objective view of the existing literature, always based on empirical evidence and solid arguments. It is important to emphasize that although the research does not directly involve human participants, a strict code of ethics was followed in the handling and presentation of the information to guarantee the validity and reliability of the results presented.

RESULTS AND DISCUSSION

Business sustainability

Barcellos (2010) postulates that corporate sustainability not only favours social inclusion and optimal management of natural resources but also seeks to minimize environmental impact, thus ensuring the preservation of the planet for future generations. This approach, at the same time, does not sacrifice the economic and financial viability of companies. However, there is a notable discrepancy between the theory embodied in the literature and business practice, which, unfortunately, in many cases follows a pattern of unsustainable development.

Since the establishment of the Sustainable Development Goals by the United Nations in 2015, the issue of corporate sustainability has gained greater relevance. This renewed attention derives, to a large extent, from the recognition and adoption of the three-dimensional approach proposed by Elkington (2013). Said approach, taken up and expanded in empirical research by various authors, advocates an integrative vision that includes economic, social and environmental objectives in companies belonging to different productive spheres (Epstein, 2017; Galeano Revert *et al.*, 2018; Garzón Castrillon *et al.*, 2015; Lam, 2017).

In this line, the Economic Commission for Latin America and the Caribbean (ECLAC, 2018) highlights that, within the framework proposed by the United Nations, at least three of the goals linked to the Sustainable Development Goals are directly aligned with the conception and practice of occupational safety and health:

- Target 3.9. By 2030, significantly reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution: this is linked to the Sustainable Development Goal entitled Health and Well-being.
- Target 8.8. Protect labor rights and promote a safe and secure working environment for all workers, including migrant workers, in particular migrant women and those in precarious employment: this relates to the Sustainable Development Goal on “Decent work and economic growth”.

The protection of labour rights and the promotion of a safe working environment are essential imperatives on the global agenda. It is essential to ensure that all workers, without exception - and this includes migrant workers, women and, in particular, those in precarious work situations - enjoy decent and safe conditions in their work environment. This premise is in line with the Sustainable Development Goal (SDG) on Decent Work and Economic Growth. This goal seeks not only to boost economic growth and progress, but to do so in an equitable and sustainable manner, ensuring that working conditions are fair and conducive to all workers, regardless of their origin, gender or contractual status.

- Develop effective and transparent, accountable institutions at all levels: This relates to the Sustainable Development Goal on “Peace, Justice and Strong Institutions.”.

Sustainability, in the contemporary era, is an essential pillar for achieving business success. A commitment to sustainability can generate significant competitive advantages, which, in the long term, can translate into a strengthened reputation and an outstanding position in relation to the competition (Cardoni *et al.*, 2020).

This orientation towards sustainability in the business environment emerges as a proactive response to the growing demands for change and social transformation. It thus represents a new development perspective that transcends purely economic benefits. This approach incorporates a shared responsibility of all actors involved to face social, economic and environmental challenges, aspects deeply rooted in the modern conception of business management (Pérez *et al.*, 2019).

In the same vein, Sundström *et al.* (2019) argue that the proper assessment of sustainability-related problems requires a balanced analysis of their environmental, economic and social dimensions. In particular, it is emphasized that economic decisions are inextricably linked to human aspects and their impact. Morales (2019) complements this idea, pointing out that when processes are designed and executed with specific operational criteria, efficiency is achieved, which ultimately leads to sustainability.

In this framework, it is imperative to mention that the realization of sustainable development requires a re-evaluation and transformation of industrial processes. Elements such as emissions control, reuse and recycling of waste and proper management of natural resources, among others, are crucial. An effective tool in this process is the use of sustainability indicators, which, according to Feil (2019), allow a more accurate assessment.

Now, sustainability assessment is materialized through indicators or indexes that provide quantitative data. These data are fundamental to outline objectives or goals that are desired to be achieved with long-term strategies. However, Feil (2019) warns about the complexity of establishing a single, standardized set of indicators for all industries, given the variations in their activities and dimensions. This statement is echoed in recognized frameworks, such as the Global Reporting Initiative (GRI) and the Commission on Sustainable Development (CSD), among others.

Beyond indicators, sustainable monitoring activities are vital. These cover various areas, from employee safety to environmental management and energy consumption (Lee, 2018). It is relevant to note, however, that companies often seem to prioritize environmental sustainability over social sustainability, leaving vital aspects such as health and safety in the background (Sundström *et al.*, 2019).

This trend towards sustainability manifests itself in various ways in companies, one of them being innovation. The latter, closely linked to the social dimension, is reflected in organizational orientation and culture (Sundström *et al.*, 2019; Lin *et al.*, 2021).

Finally, despite the global drive towards sustainability, the Economic Commission for Latin America and the Caribbean (ECLAC, 2022) highlights a regional disparity. While developed countries have firmly embraced this orientation, progress in Latin America has been slower, attributable, in part, to the need for more data and methodologies for effective measurement of business activities. This observation underscores the urgency of addressing and overcoming these limitations to ensure a sustainable future in the region.

The role of occupational health and safety in companies

One of the fundamental pillars in any organization is occupational health and safety, not only for the intrinsic well-being of the workers but also because it guarantees the continuity, productivity and efficiency of the entity. In fact, any setback, whether an accident or an occupational disease, has a direct impact on the worker, influences the production process and can seriously compromise the sustainable performance of companies. These interruptions in operability, translated into lost working hours and production delays, have the potential to degrade the quality of products and, consequently, undermine the image of companies (Marhaviilas *et al.*, 2018).

Bird's (1985) analysis introduces us to the vast field of industrial safety, whose primary objective is to minimize occupational accidents. This discipline, focused on both the protection of the individual and the adequacy of infrastructures and machinery, stresses the need to weigh two essential aspects: a) standard conditions, referring to the physical facilities of the work environment, and b) conventional practices, which evidence the perception and understanding of risks, leading to a degree of commitment and proactive action by the worker to prevent accidents.

Contrasting with this perspective, Rodríguez *et al.* (2017) point out that, although industrial safety encompasses a multitude of factors, highlighting the physical and mental safety of workers,

responsibility is often relegated exclusively to employees, obviating the co-responsibility of the company's management. Paradoxically, despite this trend, many organizations establish strict regulations on operations, although they tend to dismiss or minimize the importance of industrial safety standards.

Going a step further, Otero-Gorotiza *et al.* (2018) remind us that the challenge of occupational safety and health has evolved, acquiring an interdisciplinary nature. Moreover, it has undergone a transition from merely corrective approaches to preventive strategies, prioritizing the holistic well-being of all participants. It is imperative to remember that the advancement and development of a society are inextricably linked to occupational health care and prevention and that this concern has been constant throughout history. As an example, we can mention the various initiatives related to environmental awareness and the establishment of industrial hygiene and safety standards.

Moving into the practice of safety in organizations, it is crucial to underline the decisive role of effective safety management. Despite its importance, strategy is often overlooked by organizational management and leadership, detracting from planning for the consolidation of a robust safety culture and optimal business performance (Rahman *et al.*, 2022). Proper implementation of occupational risk prevention empowers the hierarchical structures of organizations to unravel and understand the basis of each factor that affects occupational safety (Villacres Cevallos *et al.*, 2016). It should be considered that the human factor is irreplaceable and, during their work, they are constantly exposed to eventualities that may result in personal injury, damage to tools or processes, or negative consequences for the environment (Morales, 2019).

Finally, we must recognize that sustainable performance management encompasses several dimensions, among which industrial safety, customer satisfaction, resource optimization and waste minimization stand out. In that sense, according to Fechete Nedelcu (2019), the criteria that should prevail in a sustainable manufacturing process are:

- Reduction of energy consumption;
- Elimination/reduction of waste;

- Improved product durability;
- Elimination of health hazards and toxic dispersion;
- Improved manufacturing quality;
- Recycling, reuse and improved remanufacturing.

The relationship between sustainability and occupational health and safety is indisputably essential in the modern business context. Sustainability is not merely an environmental issue but encompasses economic and social aspects. Occupational health and safety, being a key dimension of the social aspect, has a direct impact on the sustainability of companies. However, as you point out, many organizations still neglect this connection and relegate occupational health and safety to the background.

Lee's (2018) reference highlights that while many companies tend to overlook health and safety in their strategy, truly sustainable organizations integrate these considerations into their operations to create value. This highlights the multidimensional nature of sustainability and how leading companies recognize the inherent value of protecting their workers.

Morales' (2019) perspective emphasizes the intersection of productivity, efficiency, and financial success with occupational safety and health. Safety and health practices not only protect workers, but can also contribute to a company's productivity and financial success, although unfortunately, as highlighted, many times these preventative practices are undervalued.

The International Labor Organization (ILO) has long recognized the importance of protecting workers from occupational diseases and accidents. However, as you mention, there is a long way to go to make these rights a reality for all workers.

Yturralde Villagómez and Franco Arias (2020) highlight the negative consequences of poor working conditions on workers' health. The impact of occupational diseases and work accidents can be devastating, both for the worker and the company.

Vasquez Zamora's (2011) reference highlights an unfortunate reality: occupational health and safety is not a priority for many organizations. Despite the obvious benefits, preventive measures are often seen as a burden or an obstacle rather than an investment in the well-being of workers and the sustainability of the company.

Several studies internationally have explored the relationship between sustainability and industrial safety and the intersection of these areas with other aspects of sustainability, such as economics, environment and society. These studies offer a broad view of how different cultures and regions approach these issues and how the implementation of sustainable practices may vary according to the context.

In Latin America, as Carbal et al. (2020) point out, companies often fail to prioritize social and environmental issues. This can be attributed to a number of factors, including the high rate of informality and the need for more effective compliance and regulation.

Furthermore, the Constitution of the Republic of Ecuador (2008) clearly establishes the right of everyone to a working environment that guarantees their health and well-being. Such legal provisions are essential to ensure that companies take occupational health and safety seriously and recognize its importance in overall sustainability.

All of this information suggests that sustainability and occupational health and safety are closely linked, and both areas are essential to the long-term success of any organization. Companies that recognize and act on this connection will be better positioned to thrive in the future. Organizations must recognize the importance of caring for their workers, not only from an ethical perspective but also from a business perspective.

According to the Ministry of Labor (2022), Ecuador is governed in terms of legal regulations on occupational safety and health by:

International Agreements

- Decision 584. Andean Instrument for Occupational Safety and Health.
- Resolution 957. Regulation of the Andean Workplace Safety and Health Instruction.

National legislation

- Labor Code
- Law on the commercialization and use of pesticides.
- Fire protection law
- Mining Law
- Organic law on disabilities, LOD
- Organic Law on Public Enterprises, LOEP
- Organic Law on Integral Prevention of Socioeconomic Phenomena and Drugs
- Public Service Organic Law, LOSEP
- Organic law on labor justice and recognition of domestic work.
- Organic law for the promotion of youth work, unemployment and unemployment
- Regulation to the organic law of the system
- General regulations to the mining law

Executive precepts

- Decree 860. National system of qualifications and professional training.
- Decree 2393. Worker health and safety regulations

On March 4, 2016 the Board of Directors of the I.E.S.S., establishes the new Regulations of the General Insurance of Labor Risks SGRT (IESS, 2016) Resolution 513, the same that in Article 53.- establishes the principles of Preventive Action. In matters of occupational risks preventive action is based on the following principles:

- a. Control the risk at the point of origin, in the medium or at the receptor.
- b. Planning for prevention, integrating technique, work organization, working conditions, social relations and the influence of environmental factors;
- c. Identify hazards, measure, evaluate and control risks in working environments;

d. In work environments, hazards are measured, evaluated and controlled; d;

e. Workers receive information, education, training and training in the safe development of their activities.

f. According to the skills of the work force, assign tasks;

g. Identification of occupational or occupational diseases; and,

h. Monitoring the health of employees in relation to identified risk factors.

According to the Ministry of Labor (2022), legal regulations in Ecuador regarding occupational health and safety are governed by the regulations above. Article 55 of the regulation emphasizes the imperative need for companies to implement occupational risk prevention mechanisms. This article emphasizes the identification, measurement and evaluation of hazards and risk factors and requires exhaustive supervision of operations and periodic occupational health surveillance and evaluations.

Several research studies in Ecuador have addressed the management of occupational risk prevention. For example, Otero-Gorotiza et al. (2018) highlight that the lack of knowledge and enforcement of laws governing safety and health in the country creates a significant problem in the occurrence of occupational accidents and occupational diseases. This lack of knowledge, added to the scarce advice and dissemination, aggravates the situation. On the other hand, Gómez and Suasnavas (2015), in their research, establish an interesting comparison. They point out that, with respect to other Latin American countries, in Ecuador, employers less frequently inform employees about occupational accidents. However, this issue does not necessarily reflect a decline in workers' safety and health conditions. Rather, this increase in notifications to the Ecuadorian Social Security Institute between 2011 and 2012 is largely due to the implementation of Resolution No. 3907 of 2011, which establishes specific deadlines for reporting occupational accidents.

Villacres Cevallos et al. (2016), in their analysis of a dairy company in Riobamba, evidence that the implementation of a management system in Occupational Risk Prevention can

have significant effects. This study revealed an improvement in the efficiency index from 53.29% to 93.52%, implying a notable reduction in occupational accident rates.

Vásquez Zamora (2011) provides another perspective by using Ecuador's Health and Safety Management Model System as a reference. Inspired by this model, the Regulations of Resolution 957 for the Andean Instrument for Occupational Safety and Health were created. For 18 months, this system was implemented in EP PETROECUADOR, allowing effective technical management that benefited both workers and the company.

Delgado Castro (2016) points out the importance of a contingency plan. Through his study of a commercial company in Manta, he shows that such a plan, implemented between 2013 and 2015, generated significant savings for the company in terms of accidents, incidents and claims. This strategy not only had a positive economic impact but also reduced damage to society and the environment.

Yturalde Villagómez and Franco Arias (2020) emphasize that omitting to consider risks can endanger the worker's health and cause occupational accidents. This shared responsibility involves the worker, the employer for not implementing adequate policies and the state for not enforcing current laws and regulations.

Vega Pérez et al. (2017) uncover a concern in textile laundries in Pelileo canton. Their study reveals that these organizations often lack adequate plans to address psychosocial factors, compounded by ignorance or inadequate management of these factors.

Rodriguez et al. (2017) argue that, despite the existence of laws to protect employees, a reluctance persists on the part of some employers to invest in a safe work environment. This reluctance is countered by the employee's responsibility to know and mitigate the risks associated with their work.

For their part, Toro Toro et al. (2020) and Ramón & García (2021) coincide in highlighting the lack of knowledge and lack of observance of occupational safety and health laws in various sectors. The limited number of labour inspectors at the national level compounds this problem.

Silva *et al.* (2020), while investigating working conditions in Guayaquil and Quito, found a worrying fact: Ecuador has the highest rate of occupational accidents in the region. Interestingly, this figure exceeds the statistics of the Ecuadorian social security system, suggesting possible inconsistencies in official records.

Salazar Méndez (2012) raises the need for greater dissemination in mass media about labor rights, especially when facing work-related risks.

Cotto Medina (2018), referring to the Ecuadorian regulatory framework, criticizes its inability to enforce compliance effectively. As a result, many companies need help with permits, the social security system, and other agencies.

Finally, de Meyer (2022) argues that the key to improved occupational safety lies in prevention. This author stresses the importance of an inclusive social dialogue that involves governments, companies and workers in the construction of solid and effective policies.

CONCLUSIONS

The relationship between corporate sustainability and occupational health and safety in Ecuador is evident and fundamental. It is undeniable that industrial safety in companies is a crucial pillar for achieving sustainability since it addresses economic aspects, such as reducing accident costs; social aspects, by guaranteeing employee safety; and environmental aspects, by preventing environmental pollution. This triad not only contributes to improving organizational performance, increasing efficiency and competitiveness, but also paves the way for real and lasting sustainability of the company.

Despite the robust legal structure in Ecuador, which seeks to regulate occupational health and safety, there is a significant gap between the regulations and their application in reality. In both the public and private sectors, the lack of compliance with these laws is palpable. This mismatch is aggravated by the need for more knowledge on the part of workers about their rights in the face of occupational hazards.

Companies that have adopted industrial safety management systems have shown a

firmer control over the risks of accidents and occupational diseases. This proactivity has led to a significant increase in their level of effectiveness, underlining that theory, when properly translated into practice, leads to safer work environments and, therefore, to more sustainable companies.

Finally, for corporate sustainability in Ecuador to be consolidated and reflect a genuine integration of occupational health and safety, it is essential to intensify training and awareness campaigns. Companies should be encouraged, either through recognition or incentives, to adopt occupational health and safety management systems. It is also imperative to strengthen the labour inspection system and rigorously sanction non-compliant companies. Finally, developing transparent reporting mechanisms is crucial to understand and address the true magnitude of the challenges in occupational safety.

Contribution to scientific knowledge

This manuscript sheds light on a crucial aspect for companies in Ecuador: the integration of occupational health and safety as a pillar of corporate sustainability. Through a meticulous review, it highlights not only the theoretical importance of this integration but also the practical and operational challenges faced by companies. It highlights the need for a more holistic approach that incorporates social dialogue to strengthen occupational health and safety. This work ultimately lays the groundwork for future research and intervention proposals for comprehensive corporate sustainability in Ecuador and other similar contexts.

Limitations

Despite the breadth of this study, which focused on research conducted in Ecuador, it is essential to recognize that it may cover only some of the labour reality of the country or certain specific regions. Further research that also addresses the individual perspectives of workers and employers is needed to obtain a holistic understanding of the challenges and solutions.

Authors' contributions

Karina Alexandra Plua Panta: Conceptualization, Data Curation, Formal Analysis, Research, Methodology, Project Management, Resources, Supervision, Validation, Writing - original draft, Writing: revising and editing.

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Inés Elizabeth Tenelema Jiménez: Conceptualization, Data curation, Research, Methodology, Supervision, Writing - original draft, Writing: proofreading and editing.

Joel David Cabrera Moreira: Conceptualization, Research, Methodology, Validation, Visualization, Writing - original draft, Writing: proofreading and editing.

Conflicts of interest

The authors declare that there are no conflicts of interest.

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