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CO-AUDITING AS A TOOL FOR ASSESSING AND SHAPING LONG-TERM SUSTAINABLE BUSINESS STRATEGIES

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ABSTRACT

Intensive activity in operationalizing long-term sustainable business strategies and the increasing technological and commercial affirmation of many of its tools have enabled the emergence of eco-auditing as a process for assessing the environmental performance of organizations, products, or services with the aim of improving the environmental aspects of business. The comprehensiveness of eco-auditing refers to the thoroughness of the assessment, including analysis of environmental impact, compliance with legislation, and identification of opportunities for more sustainable practices.

The paper first reflects on the role of eco-auditing in organizations to:

- identify environmental risks,
- improve compliance with legislation and standards,
- enhance competitiveness, and
- build trust with consumers and partners by demonstrating responsibility toward the environment.

The emphasis of the paper then shifts to explaining the key standards of eco-auditing and providing practical examples where this tool serves as a foundation for sustainable business and environmental protection. Finally, focusing on the construction industry and companies using the Leadership in Energy and Environmental Design (LEED) standards for design and construction, organizations from Serbia and Bosnia and Herzegovina that have undertaken the LEED certification process are highlighted as tools to improve building energy efficiency and sustainability.

Keywords: environmental management, eco-auditing, LEED, energy efficiency, building sustainability.

INTRODUCTION

In today's business environment, where environmental protection and sustainable development have become global priorities, organizations are increasingly under pressure to reassess their environmental performance and contribution to both the community and the natural environment. Environmental management represents both the science and art of managing various levels of organizational systems by controlling environmental risks that threaten the survival of these systems. It is necessary to raise awareness about pollution, to assume responsibility, and to take steps toward stopping pollution—if not entirely, then to an acceptable or minimal level. Changes should begin within the organization itself by investing in development that primarily involves long-term and far-reaching changes in technology, which must become increasingly cleaner.

In this context, environmental auditing emerges as one of the key tools enabling a systematic assessment, monitoring, and improvement of the environmental aspects of business operations,

products, and services. As a comprehensive process, environmental auditing not only identifies environmental weaknesses and risks but also provides organizations with a foundation for strategic decision-making toward sustainable development.

Environmental auditing, also known as ecological or green auditing, encompasses a range of activities including the analysis of an organization's environmental impact, verification of compliance with legal and regulatory frameworks, and the identification of areas where better and more efficient environmental practices can be applied. This type of audit is particularly significant because it does not solely focus on meeting formal requirements; it also has a broader goal—improving business operations through responsible resource management, reducing waste, emissions, and energy consumption, and promoting the principles of a circular economy.

ENVIRONMENTAL MANAGEMENT

Environmental management is a fully anthropocentric or human-centered concept of business management. It is not merely a standard science and skill of effective and efficient behavior and goal achievement in the right way, but rather a true knowledge and practice of attaining the right goals - those concerning human survival and the quality of human life. In no other area of management application is the dominance of the principle of effectiveness over the principle of efficiency confirmed so strongly and convincingly. In other words, the lack of effectiveness (i.e., poorly chosen, inhumane, and non-ecological goals) cannot be compensated for, even by the highest level of efficiency.

This has been supported by the introduction of international environmental management standards, such as the ISO 14000 series from 1994, followed later by the 18000 series and others. Their primary role is to provide unified guidelines for environmental policy; to define strategic and operational objectives; to identify and assess environmental impacts; to establish internal and external audit procedures; to set communication principles; and to define obligations for training, among other things.

In this sense, environmental management system standards represent a further elaboration and concretization of the well-known *Business Charter for Sustainable Development*, which was adopted in 1991 within the framework of the International Chamber of Commerce. At that time, it was proclaimed that environmental management must be a priority task for companies, that ecology must be integrated into company management, and that its improvement must be a continuous process. It was also emphasized that employees must be continuously motivated and educated on environmental matters; that constant assessment of the environmental impacts of every new process and product must be carried out; that the company must take responsibility for the conduct of its partners and suppliers; that the company must be open to dialogue on environmental risks and actively engaged in joint efforts to raise environmental awareness and regularly inform all interested parties (Pokrajac, 2001, 107).

ECO-AUDIT AS A TOOL OF ENVIRONMENTAL MANAGEMENT IN ORGANIZATIONS

The introduction of eco-auditing into business practices brings numerous benefits. Firstly, organizations can timely identify environmental risks that could threaten their operations or reputation. Secondly, eco-auditing increases compliance with domestic and international laws and standards, which facilitates easier access to foreign markets and partnerships. Thirdly, companies that actively conduct eco-audits often gain a competitive advantage, as consumers and investors are increasingly interested in sustainable and environmentally responsible products and services.

Eco-auditing is an important step toward building trust among consumers and the public. Transparent reporting on audit results, including improvement measures, sends a clear message that the company is committed to environmental protection and socially responsible business practices. In today’s society, where environmental awareness is on the rise, such an approach can significantly influence an organization’s image and market success.

In practice, implementing an eco-audit requires a multidisciplinary approach, involving experts from ecology, management, law, and technology, as well as the active participation of

employees. The process typically includes several phases: planning, data collection and analysis, evaluation of results, report preparation, and proposals for improvement. A key aspect of a successful eco-audit is continuity - it must not be a one-time action but a continuous practice within the environmental management system.

For example, many companies seeking alignment with standards such as ISO 14001 or LEED use eco-auditing as a fundamental tool for assessing current conditions and defining action plans. This is especially true in industries with significant environmental impacts, such as construction, energy, or the chemical industry, where eco-auditing becomes essential for maintaining competitiveness and legal compliance.

In an era of global awareness about the importance of environmental protection, business organizations are facing increasing pressure to align their operations with the principles of sustainable development. One of the key tools enabling the systematic reassessment and improvement of environmental aspects of business is the eco-audit. Eco-auditing represents a process of assessing an organization's impact on the environment through the analysis of processes, products, and services, with the aim of achieving better performance in accordance with environmental and regulatory standards (Hilary, 1997).

The main roles of eco-auditing in modern organizations are: identifying environmental risks, improving compliance with laws and standards, enhancing competitiveness, and building trust among consumers and partners.

Eco-auditing enables organizations to identify and quantify potential environmental risks that may arise from their activities. These risks include water, soil, and air pollution, improper waste management, and inefficient resource consumption. Timely detection of such weaknesses through eco-auditing reduces the likelihood of environmental incidents and harmful consequences for local communities and the surrounding environment (Environmental Protection Agency [EPA], 2021). Organizations that conduct regular eco-audits gain clearer insight into the critical points of their operations and develop risk mitigation plans.

In an increasingly complex regulatory environment, compliance with laws and environmental standards is becoming more challenging. Eco-auditing helps organizations systematically monitor and document their compliance with applicable legislation and industry norms, including international standards such as ISO 14001. This practice not only reduces the risk of fines and legal consequences but also facilitates the continuous improvement of environmental performance through the implementation of audit-derived recommendations (International Organization for Standardization [ISO], 2015).

In today's market, sustainability is increasingly viewed as an advantage rather than merely an obligation. Companies that actively conduct eco-audits often achieve better market positioning by adopting environmentally efficient technologies, reducing operational costs through resource optimization, and gaining access to "green" funds and public tenders (Delmas & Toffel, 2008). Such organizations also tend to enjoy a stronger reputation, which directly contributes to their competitiveness.

Transparency and accountability are key values increasingly appreciated by consumers and business partners. When eco-audit results are communicated clearly and openly, they serve as a powerful indicator of social responsibility and environmental commitment. This helps build trust and loyalty among customers, investors, and partners, thereby creating a positive corporate image (Bansal & Roth, 2000). In a society that values sustainability, eco-auditing is not just a tool for internal evaluation but also a means of external positioning.

Eco-auditing is more than an administrative requirement - it is a strategic tool that enables organizations to evolve toward sustainability. Through risk identification, regulatory compliance, increased competitiveness, and trust-building, eco-auditing contributes to the long-term success of organizations and the preservation of natural resources. In the future, more and more companies will need to integrate eco-auditing into their everyday operations - not only due to regulatory obligations but also in response to consumer expectations and global societal demands.

KEY STANDARDS OF ECO-AUDITING

Eco-auditing is a key mechanism through which organizations systematically assess their environmental impact, identify opportunities for improvement, and direct their operations toward a more sustainable model. This tool is especially important in the context of growing global concerns about climate change, resource depletion, and ecosystem preservation. Eco-auditing is conducted in accordance with a range of internationally recognized standards that provide a framework for evaluating and enhancing environmental performance.

The key standards of eco-auditing include:

- ISO 14001 – Environmental Management Systems
- EMAS – EU Eco-Management and Audit Scheme
- LEED – Leadership in Energy and Environmental Design

The most significant global standard for eco-auditing **is** ISO 14001, which defines the requirements for an environmental management system. This standard helps organizations identify and manage the environmental aspects of their activities, ensure compliance with legal requirements, and continuously improve their environmental performance (ISO, 2015). Its core components include planning, implementation, checking, and acting (the Plan-Do-Check-Act cycle), which enables a dynamic and iterative approach to environmental protection.

EMAS is a European standard that combines the requirements of ISO 14001 with additional elements, such as public disclosure of environmental reports, stricter verification rules, and a stronger emphasis on transparency. This framework allows organizations to strengthen public and stakeholder trust through documented commitment to environmental preservation (European Commission, 2020).

Although not a classical eco-auditing standard**,** LEED is a widely applied framework for assessing building sustainability. Through a point-based system, LEED evaluates energy efficiency, indoor environmental quality, material use, waste management, and other factors that directly affect the environment. LEED certification often includes eco-audits as part of the preparation process (USGBC, 2021).

LEED is a rating system developed by the U.S. Green Building Council (USGBC) that evaluates the environmental efficiency and sustainability of buildings across various categories: energy efficiency, water usage, material selection, indoor environmental quality, transportation, innovation, and site location. Buildings can be certified at four levels - Certified, Silver, Gold, and Platinum - depending on the number of points earned.

LEED is not just a technical standard -it is a strategic tool that contributes to reduced operational costs, improved occupant health, lower carbon footprints, and increased market value of real estate.

CONSTRUCTION INDUSTRY AND LEED STANDARDS: EXAMPLES FROM SERBIA AND BOSNIA AND HERZEGOVINA

The construction industry has a significant impact on the environment, primarily through the consumption of natural resources, waste generation, emission of harmful gases, and influence on energy consumption. Given these challenges, it is crucial to implement tools that enable more sustainable design, construction, and building management. One of the most recognized international standards in this field **is** LEED, which sets criteria for "green building."

In Serbia**,** an increasing number of investors and designers are recognizing the importance of LEED standards as a way to improve construction quality and meet the growing expectations of the market, especially among international clients. One of the most well-known examples of LEED certification in Serbia is the Delta House office building, the headquarters of Delta Holding, which received a LEED Gold certificate. The building was designed to use energy-efficient HVAC systems, LED lighting, motion sensors, as well as rainwater collection and greywater recycling systems. Local and recycled construction materials were used, with special emphasis on indoor air quality and employee comfort (Delta Holding, 2022). Companies such as MPC Properties **and** AFI Europe have also implemented LEED certification for their office and shopping centers, such as

Ušće Tower 2 and Skyline AFI Tower**,** to increase the buildings' energy efficiency and reduce operational costs (MPC Properties, 2023). In these cases, LEED has also served as a marketing tool, as tenants and users are increasingly seeking "green" business spaces.

Although the process is slower compared to Serbia, Bosnia and Herzegovina has seen its first successful examples of LEED standard application, particularly in large infrastructure and corporate projects. The Green Park project, a mixed-use residential and commercial complex in Sarajevo, applies LEED principles in its design and implementation - especially in terms of smart heating and cooling systems, insulation, low-emission facades, and water-saving technologies. Although the certification process has not been completed, the building was developed according to LEED criteria with the goal of future certification. The company Energopetrol**,** within its gas stations in Sarajevo and Mostar**,** has implemented sustainability elements aligned with LEED standards - such as solar panels, LED lighting, and wastewater recycling systems. Although they have not undergone full certification, these initiatives demonstrate the practical adoption of LEED principles (Green Building Council Bosnia and Herzegovina, 2022).

ADVANTAGES AND CHALLENGES OF LEED CERTIFICATION

Advantages:

- Energy Efficiency – Significant reduction in energy consumption, leading to lower operating costs.
- Occupant Health – Improved air quality and lighting positively affect productivity and overall well-being.
- Market Value – LEED-certified buildings attract higher-quality tenants and achieve higher rental and resale prices.
- Regulatory Compliance – Many LEED components align with environmental protection and energy efficiency regulations.

Challenges:

- High Initial Costs – Implementing sustainable technologies often requires greater upfront investment.
- Lack of Local Expertise – LEED certification requires specialized engineers, designers, and auditors, which may be scarce locally.
- Bureaucracy – The certification process involves extensive documentation and can take several months to complete.

CONCLUSION

Eco-auditing represents a fundamental mechanism for achieving long-term business sustainability. Its implementation helps organizations better understand their environmental responsibilities and potentials, respond to growing demands from the market and regulators, and actively contribute to global environmental protection goals. In an era where success is measured not only by profit but also by responsibility toward society and nature, eco-auditing is a step no serious organization should overlook.

When conducted in accordance with internationally recognized standards such as ISO 14001, EMAS, and LEED, eco-auditing serves as a powerful tool for improving sustainable business practices and environmental protection. By identifying environmental aspects, enhancing compliance, optimizing resource use, and strengthening public trust, eco-audits enable organizations to make their operations more environmentally responsible. Practical examples from the region confirm that eco-auditing is not merely a regulatory requirement, but a strategic instrument for long-term development and competitive advantage.

LEED standards are a powerful tool for transforming the construction industry toward sustainability. Companies from Serbia and Bosnia and Herzegovina that have adopted LEED principles have demonstrated that aligning business objectives with environmental protection principles is both feasible and beneficial. While challenges exist, the trend clearly indicates that the

number of LEED-certified buildings in the region will continue to grow—especially with the support of government incentives and increasing environmental awareness among investors and building users. The implementation of LEED standards is not just "green" marketing, but a genuine step toward a sustainable and responsible construction sector.

DECLARATIONS OF INTEREST STATEMENT

The authors affirm that there are no conflicts of interest to declare in relation to the research presented in this paper.

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