

Certification and sustainability as a key tool for competitiveness

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Abstract: While certification is generally understood as a third-party confirmation that the requirements set out in an agreed framework have been met, sustainable development is seen as a type of development that also seeks to eliminate or mitigate the negative impacts of the way human society has developed to date without compromising the ability of future generations to meet their basic needs and maintain their standard of living. In integrating ESG criteria into corporate strategies, ISO standards and other certifications are proving to be important tools. The aim of this paper is to assess the interrelationship between certification and the concept of sustainability in the context of market competitiveness. The authors consider that certification is a key condition for sustainability, especially because it creates standards without which there would be inconsistencies in the applied processes. And it is the alignment of set processes through certification that is a prerequisite for successful sustainable development and market competitiveness.

Keywords: certification, eco-label, ISO certification, sustainability

JEL Classification: Q01, L15, M14

1 Introduction

Sustainable business is an issue that is part of the broader field of sustainable development. Its importance is gradually growing, and companies will have to adapt to sustainability requirements in the future. The way to achieve sustainable business is the introduction of sustainable standards within the company. These standards allow companies to meet the pressures to comply with the conditions of sustainable development, where they help to set rules that bring an element of belonging to future generations into business.

Sustainable standards should be implemented into the strategy of every business, ideally from the very beginning of the life cycle. Demands on entrepreneurs are increasing, whether from the state, the European Union, competitors, or consumers. However, it is ideal if companies approach this voluntarily, as part of the so-called Corporate Social Responsibility.

ESG criteria - environmental, social and administrative criteria, are also related to sustainability, which focus on positively influencing the environment, society and business management. We can think of sustainability as an internal framework, while ESG is an external framework. It is a form of assessment, a result by which we inform the environment, evaluate performance and risk. Related to this is non-financial ESG reporting, which is already mandatory for certain groups of companies; according to the CSRD directive, the range of companies will be expanded, and the rules will also be tightened.

In connection with sustainability, let's also mention the Sustainable development goals (SDGs); UN goals; which mean certain obligations for the member states within the set long-term goals, and integration into sustainable development. Rodriguez-Anton et al. (2019) in a study focused on the analysis of the relationship between the circular economy and the goals of sustainable development of the SDGs state that there is a direct relationship between them. Dentinho et al. (2021) also consider, within the framework of the relationship between the SDGs and sustainability, to specify the assumptions of each study of sustainable development in terms of systemic impacts on the various dimensions of the goals of sustainable development. In their study, Dentinho et al., (2023) use Q analysis and examine the preferences of people across different cities in Europe in relation to the situation of different cities in terms of indicators of sustainable development goals.

Businesses have several options to implement the concept of sustainable business. From non-financial reporting, waste management, introduction of the recycling process, minimization of packaging, support of local and sustainable suppliers and partners, use of sustainable materials, reduction of energy consumption, introduction of certifications and eco-

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labelling, to investments in research and development of new sustainable technologies and processes. Businesses must properly assess their advantages and disadvantages, evaluate the financial and time requirements. But also a benefit in the form of new business relationships, significant cost savings or new income.

Not incorporating sustainable requirements into their business concept will also have an impact on entrepreneurs. Komárková et al. (2022) states that financial institutions adapt the offer of products and services for clients in connection with environmental risks and opportunities. „*For example, banks have expanded their range of products to include sustainable loans related to housing, ecological vehicles, or environmentally focused business projects. Insurance companies proceeded to expand the portfolio of investment products to include products pursuing environmental goals or to introduce extended coverage for insuring buildings with lower energy requirements. Pension companies have started to establish funds focused on sustainable investing.*“ (Komárková et al., 2022). They further state that financial institutions, for example, are terminating, raising prices or tightening requirements for entities with activities that negatively affect the environment and offer the possibility of financing the transition to environmentally neutral/positive economic activity. Machová (2020) states that institutional investors pay more and more attention to environmental, social and governance aspects (so-called ESG reporting) when evaluating the performance of companies. A tightening of the conditions for businesses in incorporating sustainable conditions into business can therefore be expected in most segments over time. Maximilian Ronalter et al. (2023) state that companies with an implemented quality management system and an environmental management system achieve a statistically significantly higher ESG score than companies without such management systems.

The Czech Banking Association has published a sample ESG questionnaire, where you can find out what banks can evaluate. It is evident from the sample questionnaire that the banks also find out what ESG certificates the company owns. They are therefore interested not only in economic indicators and results, but also non-financial aspects, such as certification according to environmental and social standards, energy management certification, waste production, greenhouse gas emissions or water consumption. They require energy certificates for properties or your plans to improve energy efficiency or reduce CO₂ emissions. (Czech Banking Association, 2021)

As can be seen, non-financial criteria are receiving increasing attention from partners, employees, consumers, financial institutions, competitors, and the media. Companies that incorporate the concept of sustainability into their strategy are more attractive to investors. Non-financial indicators can thus play a key role in evaluating the performance of a company. ISO standards and other relevant certifications will also be essential in integrating ESG criteria into business processes. Therefore, the authors reflect on the relationship between certification and sustainable development and demonstrate to what extent and how certification processes contribute to the achievement of sustainability goals. This analysis is crucial at a time when there is a growing awareness of the importance of sustainability in business and society. The authors assess whether certification does indeed provide an effective framework for implementing sustainable practices. The analysis of the relationship enables the benefits of certification while highlighting areas where they could be improved or enhanced to contribute more effectively to sustainable development. The aim of this paper is to assess the benefits and impact of certifications in relation to sustainable development and market competitiveness.

2 Methods

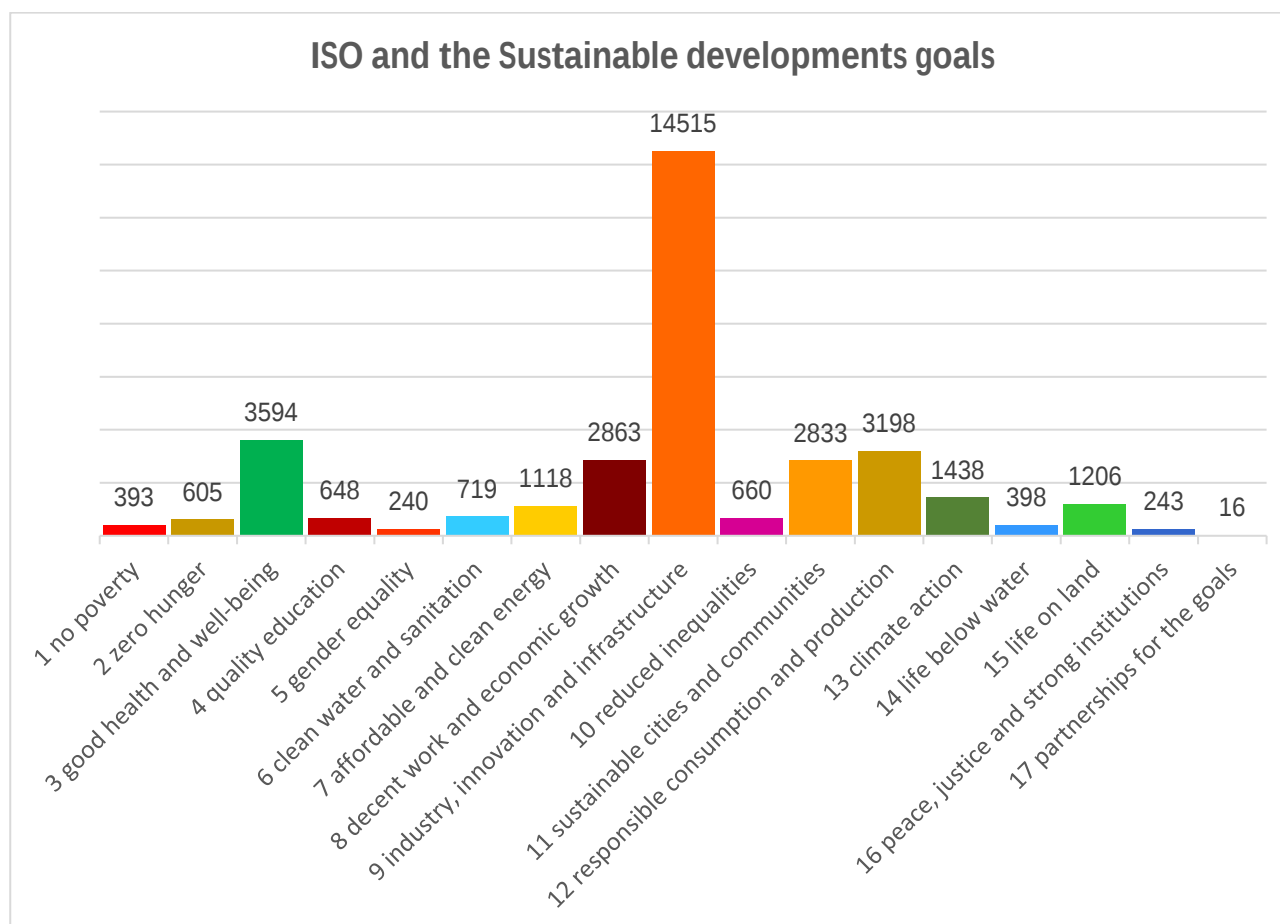
To achieve the goal set in this article, it was necessary to use scientific methods based on the evaluation of existing knowledge in the given area. The methods used by the authors in the preparation of this article include the method of induction, deduction, analysis, and synthesis. First, an analysis of knowledge in the given area and research was carried out. Based on the analysis carried out in this way and subsequently the synthesis of the findings, results were achieved in the form of a precise definition of the concept of certification and sustainable development, so two key concepts, the relationship of which was primarily examined in the article. Using the evaluation of primary and secondary data, especially data from publicly available sources. For the elaboration of the article, official statistical data published by The International Organization for Standardization (ISO) was used. Furthermore, an analysis of ISO standards was carried out, when ISO standards showing elements of sustainability were evaluated. The results are presented below in the Research results chapter.

3 Research results

Certifications are one of the tools companies can use to officially confirm their credibility and sustainability efforts, which can be a significant advantage in today's increasingly competitive market. However, it does not only bring a competitive advantage, but many other benefits that also depend on the specific focus of the given certification. A foundation that is internationally recognized and verified by certified organizations worldwide.

Certification, specifically ISO standards, contribute to the fulfilment of the goals of sustainable development. Figure 1 shows the number of ISO standards that relate to individual goals of the SDGs.

Figure 1 ISO and the Sustainable developments goals



Source: own elaboration by (ISO, 2023a); date as of 21.11.2023

The market offers a wide range of certifications. Environmental labeling and declaration are a globally applied concept based on international standards (ISO14020 series), which are among voluntary information tools. Eco-labeling means the labeling of products and services that are demonstrably more friendly to the environment and the health of the consumer during the entire life cycle. At the same time, they have high quality and useful properties are tested in accredited laboratories. Such products or services may have a so-called eco-label. (CENIA, n.d.) Eco-labels are also a helping hand in detecting greenwashing. In their conclusions, Delmas & Pekovic (2013) state that green certifications should be used by managers to increase productivity, potential employees as a sign of a better working environment, and investors as an indicator of best management practices.

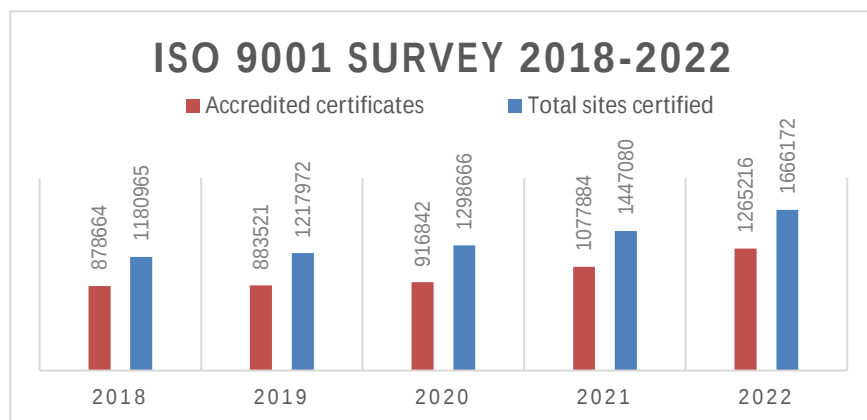
ISO standards are internationally recognized and approved by experts and cover a wide range of activities. In our article, we will be interested in environmental management standards (ISO 14001:2015 standards), which help reduce the impact on the environment, reduce or limit waste, simply be a sustainable business; supplemented by the ISO 9001 standard.

ISO 14001 is an international standard for environmental management that provides organizations with a framework for identifying, evaluating, and managing their environmental impacts. The goal of this standard is to promote sustainability and minimize the organization's negative impact on the environment. ISO 9001 focuses on the quality management system and provides a framework for improving processes and achieving a high level of quality in all aspects of the organization. It is designed for organizations that want to improve customer satisfaction and process efficiency.

Figures 2 and 3 show the number of ISO 9001 and 14001 certifications worldwide. The graphs show a clearly positive trend in the implementation of ISO 9001 and ISO 14001 standards, and it is an extremely important tool for analysing the impact of companies' competitiveness. The number of certifications increases every year, which proves the interest of entrepreneurs in this type of certification in the field of environmental management and quality management system. At the same time, the data indicate an improvement in the quality and efficiency of the work of organizations, which can fundamentally affect their competitiveness. The interest in sustainability and the increase in regulation in this area is also reflected in the higher growth of ISO 14001 certifications, namely by 21% in comparison between 2022 and 2021, for

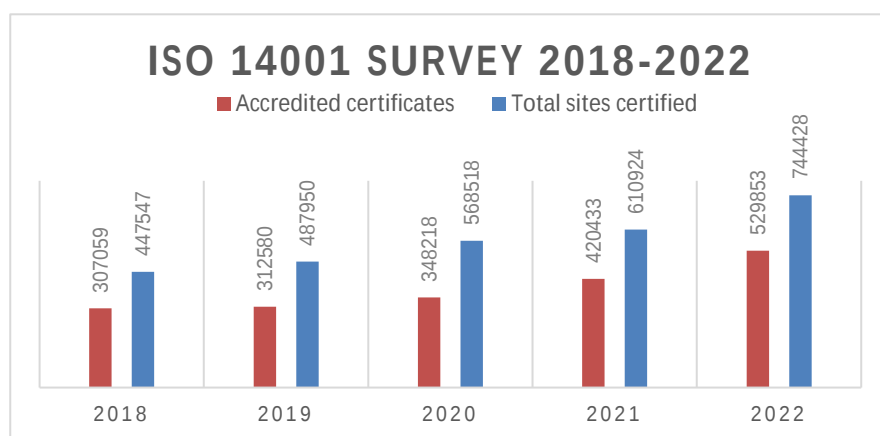
ISO 9001 certifications it was 12% in the same comparison (ISO, 2023b). At the same time, both standards help to achieve the required level of sustainable development.

Figure 2 Number of certificates and sites ISO 9001 worldwide



Source: own elaboration by (ISO, 2023b)

Figure 3 Number of certificates and sites ISO 14001 worldwide



Source: own elaboration by (ISO, 2023b)

Complex management systems such as ISO 9001 or ISO 14001 are designed to improve business processes, effective flow of information, ensure customer satisfaction and other activities. These systems are designed to assist the business in several key areas of management and can bring benefits and unintended impacts to their operations. When making decisions, it is so important that the organization considers both the positive and negative aspects of these systems and ensures that they are set up to best suit the specific needs and goals of the organization. Organizations can implement ISO 9001 and ISO 14001 simultaneously, which is known as an "integrated management system." In this way, organizations combine elements of the quality management system and environmental management into one whole and achieve efficient use of resources while improving the quality of their products and services. The company makes it clear that it wants to focus on both aspects - quality and sustainability. However, the authors point out that the implementation of both systems depends on the specific needs and goals of the organization. Joint implementation may not be appropriate for every organisation. The decision to integrate ISO 9001 and ISO 14001 should be carefully considered and take into account the specific context and strategy of the organization. This is also confirmed by the research of Freitas et al. (2020), This is also confirmed by the research of Peter and Pavel, who assessed the relationship between GHRM and corporate social responsibility (CSR) in Brazilian companies, when they had as control variables the age of the company, its size and ISO 9001 and 14001 certification. Among other things, they found that ISO 9001 certification had a positive and significant effect on CSR, but ISO 14001 certification was no longer relevant (as a control variable) for CSR in the analysed sample. (Freitas et al., 2020).

By defining and documenting its processes and procedures through the implementation of ISO 9001, an organization can better monitor performance, identify weaknesses, and implement improvement measures. This leads to more efficient performance and can reduce the cost of rework or errors. Ochieng et al. (2015) assessed the impact of the implementation of ISO 9001 on the performance of organizations in Kenya, and according to the results of the study, they consider the

benefits of implementing the ISO 9001 standard in organizations with the aim of increasing sustainable quality management procedures. The advantage for the company can also be an increase in the quality of products or services, better control over its internal processes, increase productivity in the organization and optimize overall work efficiency. An indisputable advantage is gaining and/or increasing the trust of customers and business partners. Neves et al., (2023) also verified and analysed the impact of the adoption of ISO 14001 and ISO 9001 standards on the performance of Portuguese companies.

As part of the goal of the article, let's now focus on the identification of environmental influences on the company, with which the introduction of the ISO 14001 standard can help. The fact that the company must conduct a thorough analysis of its activities and identify environmental impacts, whether air emissions, waste production, energy consumption, use of raw materials and many other aspects, brings undeniable advantages to the company. On the one hand, they must subsequently develop a plan for reducing these effects with the resulting more efficient use of energy, optimization of waste processes or the introduction of material recycling. The result can be cost savings (e.g. lower energy consumption or lower waste disposal costs). Sartor et al., (2019) cited the need to improve the company's image, pressure from customers and ethical reasons as a benefit for the decision to implement ISO 14001. Since more and more consumers are interested in the sustainability and environmental responsibility of companies, the introduction of ISO 14001 means a competitive advantage, the possibility to offer more environmentally friendly products and services and thus attract more customers. Companies that have a long-term interest in sustainability have better public prestige, they can use the data in their campaigns to build the good name of the company. The advantage, as in the previous point, is the compliance of the company's processes with environmental regulations. The company will gain both economic benefits but will also contribute to environmental protection and sustainable development, ultimately contributing to the fulfilment of the SDGs. According to Zimon et al. (2021), the introduction of ISO 9001 or ISO 14001 brings dynamic benefits for manufacturing companies and especially across the supply chain for textile companies. Also the research results of Dellana et al. (2020) identify ISO 9001 certified companies that are able to use integrated supply chain risk management (RMI) efforts to positively impact supply chain performance than non-certified companies. Ye et al. (2020) used a quasi-experimental design in their research and came to surprising results, namely that ISO 14001 leads to lower financial risk, but at the same time that standard management systems such as ISO 14001 actually hinder the growth of companies' sales.

By default, the disadvantage is considered to be financial difficulty, as well as the costs of training and related documentation. Apart from the costs of certification, Sartor et al. (2019) also mention the risk of dissemination of confidential information and reduced productivity as barriers to implementation. Employees often consider the introduction of certification to be excessive bureaucracy and see it as an increased administrative burden, in this case training for employees with an emphasis on explaining the benefits to themselves is important. It is also recommended to identify the processes and clearly establish the person responsible for them. For employees, this means more effective communication and they will acquire skills faster in the given area of the documented process. At the same time Delmas & Pekovic (2013) state that companies that voluntarily adopt international practices, ecolabels or ISO 14001 standards have employees who are 16 percent more productive than average, employees in such green companies are more motivated, receive more training and benefit from better interpersonal relationships.

For each certification, its maintenance is important, and the associated regular updating and subsequent audits, associated costs. However, continuous improvement is also linked to this, and thus the company can better identify areas in which it can improve. Thanks to a better flow of information, the company reacts more flexibly to changes in its surroundings and to new conditions and crisis situations, it reacts more flexibly to changes in demand, but also to new legal regulations. When maintaining and updating certification, the business must be aware that failure to comply with standards or their loss can damage the organization's reputation.

To summarize, the implementation of ISO 9001 and ISO 14001 can have a positive effect on market competitiveness in several ways by helping the organization to acquire customers, improve its image and use resources more efficiently.

- Effective use of resources – the company uses its resources effectively, behaves responsibly, reduces costs, uses its financial advantage to ensure competitiveness on the market.
- Compliance program in the field of sustainability - ISO 14001 helps organizations comply with relevant regulations and minimize the risk of fines and legal problems. In addition, the pressure in this area will continue to increase, also due to the fulfilment of the SDGs.
- Image and reputation of the company – if the organization undertakes to comply with a given standard, it signals to the public its long-term commitment to environmental protection and sustainability.

- New customers and business partners – More and more customers prefer products and services from companies that respect the environment. ISO 14001 certified organizations can attract environmentally conscious customers and expand their customer base. Also, as already mentioned, financial investments also follow the environmental aspect of companies (Komárková et al., 2022). The same applies to promoting better environmental behaviour of business partners and integrating them into the organization's business systems.
- Satisfied employees – increased management involvement and employee engagement, they also consider a certified company as a company with a better working environment, and, as Delmas & Pekovic (2013) report, employees also have higher productivity.
- Flexibility to changes – during regular maintenance of certification, control, audit, companies better identify areas in which they can improve.

4 Conclusions

Overall, certification and sustainability are becoming an integral part of the corporate world and has an impact on many aspects of business, including law, accounting, and financial management. Companies that effectively integrate sustainable practices in the form of certifications into their operations and transparently communicate their successes and challenges can achieve a competitive advantage and better meet the expectations of their customers, investors, and regulators. Also Sartor et al. (2019) Also Petr et. al. evaluates that the introduction of the ISO standard 14001 is associated with an increase in productivity and effective management of processes, thus also with a reduction in resource consumption and the overall quality of processes in the company. Also, the public and customers increasingly expect organizations to properly manage their processes and care for the environment.

The ISO 14001 standard may not be necessary for a company, but it can greatly help to improve corporate environmental responsibility. Companies with ISO 9001 and ISO 14001 certificates will improve their quality management practices and sustainable standards in the company. Also from the statistical data in the article, which shows the increasing number of ISO certifications from 2018 to 2022 (ISO, 2023b), they indicate a positive development of organizations in the areas of quality and management. These improvements can increase their competitiveness in the market and contribute to their long-term success.

As a result, certification has a double benefit for entrepreneurs in the field of sustainable development. First, it is a factual contribution in the field of sustainable development. Entrepreneurs, thanks to the effort to obtain a nationally or internationally recognized certificate, try to promote changes in their production processes so that they can withstand the conditions of process quality assessment in relation to sustainable development. As a result, this means that by introducing these changes, a state is gradually reached where companies assume social responsibility for the possible effects of their actions on the environment and thus also on future generations. Secondly, the obtained certification is perceived positively in the eyes of the public, thereby the company builds its credit, brand or name and becomes known to people. In fact, it also implements elements of marketing that can have a positive effect on the evaluation of the company.

In the long term, however, we can summarize that certification is already becoming a necessary condition for sustainability. Although this condition is not enshrined in legislation anywhere yet, the market setting is such that the requirement of sustainable development becomes an integral part of the requirements for entrepreneurs. And certification seems to be the ideal way to achieve this goal.

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References

- CENIA. (n.d.). Co je to ekoznačení. *Ekoznačka.cz*. Retrieved September 27, 2023, from <https://www.ekoznacka.cz/co-je-to-ekoznaceni/>
- Czech Banking Association. (2021). *Vzorový ESG dotazník na pomoc firmám*. Česká bankovní asociace. <https://cbaonline.cz/vzorovy-esg-dotaznik-na-pomoc-firmam>
- Dellana, S., Kros, J. F., Falasca, M., & Rowe, W. J. (2020). Risk management integration and supply chain performance in ISO 9001-certified and non-certified firms. *International Journal Of Productivity And Performance Management*, 69(6), 1205–1225. DOI 10.1108/IJPPM-12-2018-0454.
- Delmas, M. A., & Pekovic, S. (2013). Environmental standards and labor productivity: Understanding the mechanisms that sustain sustainability. *Journal of Organizational Behavior*, 34(2), 230–252. DOI 10.1002/job.1827.

- Dentinho, T., Kopczewska, K., De Francesco, G., Pascariu, G. C., Kourtiti, K., Nijkamp, P., Pysz, J., Marques, J., Viñuela, A., & Türk, U. (2023). *Sustainable Development Goals. People and places chose what they do not have*, 169–189, DOI 10.4337/9781035314058.
- Dentinho, T., Kourtiti, K., & Nijkamp, P. (2021). *Regional Science Perspectives on Global Sustainable Development—An Exploration of Multidimensional Expert Views by Means of Q Analysis*.
- Freitas, W. R. de S., Caldeira-Oliveira, J. H., Teixeira, A. A., Stefanelli, N. O., & Teixeira, T. B. (2020). Green human resource management and corporate social responsibility: Evidence from Brazilian firms. *Benchmarking: An International Journal*, 27(4), 1551–1569. DOI 10.1108/BIJ-12-2019-0543.
- ISO. (2023a). *ISO contributes to all of the Sustainable development goals*. ISO. <https://www.iso.org/standards.html>
- ISO. (2023b). *ISO Survey of certifications to management system standards*.
<https://www.iso.org/committee/54998.html?t=KomURwikWDLiuB1P1c7SjLMLEAgXOA7emZHKGWyn8f3KQU TU3m287NxnPA3DIuxm&view=documents#section-isodocuments-top>
- Komárková, Z., Kotlář, M., & Siuda, V. (2022). *Zohledňování environmentálních faktorů ve finančním sektoru*. Česká Národní Banka. https://www.cnb.cz/cs/o_cnb/cnblog/Zohlednovani-environmentalnich-faktoru-ve-financnim-sektoru/
- Machová, A. (2020). *Proč je ESG reporting důležitý pro rozhodování zahraničních investorů*. EY. https://www.ey.com/cs_cz/financial-accounting-advisory-services/proc-je-esg-reporting-dulezity-pro-rozhodovani-zahranicnich-investoru
- Maximilian Ronalter, L., Bernardo, M., & Manuel Romani, J. (2023). Quality and environmental management systems as business tools to enhance ESG performance: A cross-regional empirical study. *Environment Development And Sustainability*, 25(9), 9067–9109. DOI 10.1007/s10668-022-02425-0.
- Neves, M. E., Reis, S., Nogueira Reis, P., & Dias, A. (2023). Impact of ISO 14001 and ISO 9001 adoption on corporate performance: Evidence on a bank-based system. *International Journal of Productivity and Performance Management*. DOI 10.1108/IJPPM-08-2022-0398.
- Ochieng, J., Muturi, D., & Njihia, S. N. (2015). The impact of ISO 9001 implementation on organizational performance in Kenya. *The TQM Journal*, 27(6), 761–771. DOI 10.1108/TQM-06-2015-0071.
- Rodriguez-Anton, J. M., Rubio-Andrada, L., Celemin-Pedroche, M. S., & Alonso-Almeida, M. D. M. (2019). Analysis of the relations between circular economy and sustainable development goals. *International Journal of Sustainable Development & World Ecology*, 26(8), 708–720. DOI 10.1080/13504509.2019.1666754.
- Sartor, M., Orzes, G., & Moras, E. (2019). ISO 14001. In M. Sartor & G. Orzes (Eds.), *Quality Management: Tools, Methods, and Standards* (pp. 199–216). Emerald Publishing Limited. DOI 10.1108/978-1-78769-801-720191013.
- Ye, Y., Yeung, A. C. L., & Huo, B. (2020). Maintaining stability while boosting growth? The long-term impact of environmental accreditations on firms' financial risk and sales growth. *International Journal of Operations & Production Management*, 40(12), 1829–1856. DOI 10.1108/IJOPM-05-2019-0407.
- Zimon, D., Madzik, P., Dellana, S., Sroufe, R., Ikram, M., & Lysenko-Ryba, K. (2021). Environmental effects of ISO 9001 and ISO 14001 management system implementation in SSCM. *The TQM Journal*, 34(3), 418–447. DOI 10.1108/TQM-01-2021-0025.