



CORPORATE SUSTAINABILITY IN THE HEALTH SECTOR: A THEORETICAL FRAMEWORK

Asst. Prof. Sibel KAHRAMAN AK (Ph.D.) 

Assoc. Prof. Sarper YILMAZ (M.D.) 

ABSTRACT

Objective: *The primary aim of this study is to delve deeply into the concepts of sustainability and corporate sustainability, shedding light on their historical evolution, the organizations that have played significant roles in their advancement, the intrinsic reasons and guiding principles of sustainability, and the concrete steps and methodologies required for achieving corporate sustainability within healthcare institutions.*

Methods: *This article undertakes an exhaustive literature review, meticulously analyzing sustainability and corporate sustainability by probing diverse databases, comprehensive online libraries, and seminal academic publications. Armed with pertinent examples and best practice recommendations culled from the literature, this article furnishes healthcare institutions with an array of actionable strategies to achieve corporate sustainability. Emphasized throughout is the invaluable role these recommendations can play, serving as a touchstone, guiding healthcare institutions to operate coherently with sustainability principles and ardently work towards a more sustainable future.*

Results: *The bedrock of corporate sustainability in healthcare is forged by a set of adaptable recommendations that traverse environmental, social, and economic terrains. Fundamental among these are the utilization of energy-efficient technologies, rigorous waste management protocols, the embrace of green energy alternatives, a focus on providing tangible social benefits, and a commitment to embedding sustainable business practices within their operational framework. Adopted systematically, these recommendations have the power to catalyze healthcare institutions towards their sustainability aspirations, ensuring that healthcare delivery remains sustainable in the days to come.*

Conclusion: *The precision and rigor with which accounting collates, scrutinizes, and disseminates sustainability-centric data cannot be overstated. This pivotal data equips businesses with the insights needed to critically assess their sustainability trajectory and craft their forward-looking*

* Şişli Vocational School, Finance-Banking and Insurance Department, Istanbul/ Türkiye. E-mail: sibelkahramann@gmail.com

* University of Health Sciences, Dept. of Emergency Medicine, Kartal Dr. Lutfi Kırdar City Hospital, Istanbul/ Türkiye. E-mail: sarperyilmaz08@gmail.com

Makale Geçmişi/Article History

Başvuru Tarihi / Date of Application : 13 Nisan / April 2023

Düzeltilme Tarihi / Revision Date : 18 Mayıs / May 2023

Kabul Tarihi / Acceptance Date : 4 Haziran / June 2023

strategies. Among the compelling rationales underscoring the indispensability of sustainability in the healthcare sector are the considerable carbon footprint, substantial waste generation, escalating energy and water consumption patterns, pervasive use of non-renewable materials, and the burgeoning reliance on single-use materials. Given this backdrop, it becomes imperative for healthcare institutions to steadfastly align their operations with sustainability benchmarks, assiduously fulfill their dual mandate of environmental and social stewardship, and zealously pursue a sustainable future without sidelining their financial imperatives.

Keywords: Sustainable development, Corporate sustainability, Corporate sustainability in healthcare

JEL Codes: Q01, Q56, I15

1. INTRODUCTION

1.1. The Development of the Sustainability Concept

The origins of the sustainability concept can be traced back to the 18th century when the English economist Thomas Malthus suggested that human population was limited by natural resources. This insight emphasized that unchecked population growth could lead to resource scarcity, and thus, unlimited growth and development were unsustainable (Malthus, t.y.). As societies industrialized, by the mid-20th century, the sustainability concept gained more importance as awareness of the ecological and environmental impact of human activities increased, especially in sectors like healthcare where resource consumption and waste generation became significant concerns. In 1972, the United Nations Conference on the Human Environment, acknowledging the growing global challenges, initiated a discussion on the impact of human activities on natural resources, leading to the emergence of the concept of sustainable development. This was a turning point for many sectors, including healthcare, which began to see the need for sustainable operations. In 1987, the World Commission on Environment and Development's "Our Common Future" report further bolstered this perspective. The report defined sustainable development as "a development process that aims to meet the needs of the present without compromising the ability of future generations to meet their own needs by conserving and sustaining natural resources while using them to meet the needs of current generations." (Keeble, 1988). This definition resonated with healthcare leaders who recognized the importance of balancing immediate healthcare delivery with long-term sustainability.

Then, in 1992, at the United Nations Conference on Environment and Development (the Rio Summit), countries globally endorsed "Agenda 21." This document, crucial for sectors including healthcare, addressed the economic, social, and environmental dimensions of sustainable development, and provided a roadmap for global sustainable development (International Council for Research and Innovation in Building and Construction & United Nations Environment Programme International Environmental Technology Centre, 2002). With its adoption, healthcare institutions worldwide began

to earnestly incorporate sustainable practices, realizing the profound impact they could have on the environment and society at large.

1.2. Importance of Sustainability Concept

Today, the concept of sustainability is considered a philosophy and movement that aims to use natural resources to meet the needs of current generations while ensuring that future generations can use the same resources. Sustainable development can be achieved through strategies implemented at both individual and institutional levels, and requires long-term efforts. The importance of sustainable development has increased today because natural resources on our planet are limited and human population and needs are increasing day by day. The importance of sustainable development can be listed as follows (Mio & Venturelli, 2013):

Preserving Resources: Sustainable development aims to use natural resources in a sustainable manner and prevent their depletion, so that future generations can also use these resources.

Improving Human Well-Being: Sustainable development aims to provide the economic, social, and environmental conditions necessary to meet people's needs and improve their living standards. Thus, the quality of life of individuals is increased, and their level of welfare is raised.

Promoting Economic Development: Sustainable development includes not only economic growth, but also efficient use of resources and fulfillment of social and environmental responsibilities by businesses. Thus, economic development and increased social welfare are achieved along with sustainable use of resources.

Protecting the Environment: Sustainable development aims to protect natural resources and prevent environmental pollution, thereby helping to preserve our environment and ecosystems.

Solving Global Problems: Global problems such as climate change, loss of biodiversity, and dwindling water resources are addressed within the scope of sustainable development, and solutions are sought for these problems.

2. INTERNATIONAL INITIATIVES AND EFFORTS FOR SUSTAINABLE DEVELOPMENT

Numerous strategies and methods have been developed for implementing sustainable development. These strategies include the use of renewable energy sources, waste reduction and recycling, energy and water efficiency, sustainable transportation methods, the use of eco-friendly products, the adoption of eco-friendly practices in agriculture and industrial processes, the construction of green buildings, and the creation of a sustainable supply chain (Padash vd., t.y.).

The United Nations Sustainable Development Goals: The 17 sustainable development goals, which were adopted in 2015, aim to address global issues such as poverty, hunger, inequality, and climate change and promote sustainable development. The Paris Agreement: The Paris Agreement is an

international treaty adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). The agreement aims to limit global warming to below 2°C and preferably to 1.5°C by reducing global greenhouse gas emissions. The Paris Agreement requires all countries, particularly industrialized countries, to reduce their greenhouse gas emissions and set concrete targets in this regard. Additionally, the agreement focuses on issues such as financial support and technology transfer to assist developing countries in controlling their greenhouse gas emissions (Paris Anlaşması / T.C. Dışişleri Bakanlığı, t.y.).

The Global Compact: The Global Compact is an initiative launched by the United Nations in 2000 to encourage businesses to implement sustainability principles. Businesses commit to contributing to global issues related to sustainability and supporting sustainable development by implementing these principles. The Global Compact aims to encourage businesses to lead in sustainability, integrate sustainability dimensions into business strategies, and develop solution-oriented approaches to global issues. Under the Compact, businesses agree to the following ten principles (UN Global Compact | 10 İlke, t.y.):

1. Human Rights: Businesses should support and respect the protection of internationally proclaimed human rights.
2. Labour Standards: Businesses should ensure that they are not complicit in human rights abuses.
3. Environment: Businesses should support a precautionary approach to environmental challenges.
4. Anti-Corruption: Businesses should work against corruption in all its forms.
5. Corporate Social Responsibility: Businesses should work to make a positive impact on the societies and communities in which they operate.
6. Sustainable Supply Chain Management: Businesses should adopt sustainable practices in their supply chains.
7. Respect for Human Rights in Business Practices: Businesses should respect human rights in their business practices.
8. Business Ethics: Businesses should promote ethical behaviour.
9. Respect for Workers' Rights: Businesses should respect the rights of workers.
10. Technology Transfer: Businesses can contribute to sustainability through technology transfer.

The Global Compact emphasizes the importance of sustainability in the business world, helping businesses fulfil their social and environmental responsibilities.

The Kyoto Protocol: The Kyoto Protocol was signed in 1997 and aims to reduce global greenhouse gas emissions. The protocol requires industrialized countries to reduce their greenhouse gas emissions and developing countries to control their emissions.

The World Wildlife Fund: This organization works to conserve natural resources and address environmental issues. The fund focuses on issues such as wildlife and forest conservation, water resource protection, and climate change.

These international initiatives and efforts support global efforts to promote sustainable development, protect the environment, and conserve natural resources.

3. CORPORATE SUSTAINABILITY IN THE HEALTHCARE SECTOR

Today, the healthcare sector is not only providing services to improve or maintain the health of patients, but also conducting activities related to sustainability that contribute to the environment and society. Corporate sustainability in healthcare means that healthcare institutions carry out their business activities in an environmentally friendly and socially responsible manner. Corporate sustainability offers healthcare organizations an opportunity to manage environmental, economic, and social impacts in a balanced way. This helps to provide better healthcare services to patients while also benefiting the environment, employees, and society. Healthcare institutions can take various steps such as sustainable resource use, waste management, use of environmentally friendly materials, energy conservation, sustainable transportation, healthy working conditions, and ethical management practices (Asante Antwi vd., 2021).

Specific Country Practices on Corporate Sustainability in Healthcare:

Canada: Canadian healthcare institutions are increasingly focusing on telehealth services, reducing the need for physical patient visits, and therefore decreasing the carbon footprint associated with patient transportation (Jack, Munro-Kramer, Williams, & D., 2021).

India: There's a notable push towards using sustainable materials in hospital construction, and the promotion of Ayurvedic treatments, which emphasize natural remedies, is seen as an eco-friendly healthcare approach (Majid, Energy, Sustainability and Society).

Brazil: With the vast Amazon rainforest, Brazil's healthcare institutions are researching the use of natural treatments and medications derived from the forest, promoting both healthcare and forest conservation (Valli & Bolzani, 2019).

Turkey: Turkey's healthcare sector has actively been integrating sustainable approaches, particularly emphasizing effective waste management in hospitals, incorporating renewable energy in health facilities, and promoting the construction of green health institutions (Yasar, 2011).

Germany: Known for its robust healthcare system, Germany focuses on sustainable procurement policies. There's a notable emphasis on acquiring eco-friendly medical equipment and endorsing the construction of energy-efficient hospitals (Moser, 2015).

Spain: With technological advancements, Spain is at the forefront in promoting telemedicine and digital health solutions. These efforts not only improve healthcare access but also reduce the carbon footprint by minimizing the need for physical consultations (Egea, 2008).

England: The National Health Service (NHS) in England has set ambitious sustainability targets, aiming to achieve a net-zero carbon healthcare system by 2040. This encompasses promoting eco-friendly transportation means for healthcare professionals and integrating sustainability into medical education (Torjesen, 2020).

"The Lancet Countdown on Health and Climate Change" report is a report that examines the impact of global climate change on human health. Published annually by The Lancet medical journal, the report addresses various topics such as the latest scientific findings, policies, health indicators, and proposed solutions related to climate change. "The Lancet Countdown on Health and Climate Change" report presents many important findings about the impact of global climate change on human health. Air pollution causes approximately 9 million deaths per year and is the fifth leading cause of death worldwide. Heatwaves, rising sea levels, tropical storms, and other climate-related natural disasters are becoming more frequent and severe. Food insecurity, water scarcity, and environmental changes affect agricultural production and make healthy foods less accessible. Mosquitoes, ticks, and other vectors have begun to appear in new geographic areas due to the impact of climate change and have caused the spread of various diseases. Dependency on energy sources is the main cause of carbon dioxide emissions worldwide and contributes to climate change (Watts vd., 2018).

"The Health Care's Climate Footprint" report was prepared by the Global Climate and Health Alliance, a civil society organization that researches the connections between health and the environment and examines the global impact of climate change on health. Researchers and healthcare sector representatives from some universities in the United States and Europe also participated in the preparation of the report. "Health Care's Climate Footprint" report is a study that examines the contribution of the healthcare sector to the global problem of climate change and was published in 2019. The report estimates that the global carbon footprint of healthcare services accounts for approximately 4.4% of total greenhouse gas emissions worldwide and could increase to 6.6% by 2030. The report also notes that the environmental impacts of the healthcare sector are not only related to greenhouse gas emissions but also include other factors such as waste production, water consumption, chemical use, and loss of biodiversity. The report also recommends steps and strategies for reducing the environmental impacts in the healthcare sector. Other key findings of the report include (Health Care Climate Footprint Report, 2019):

• The healthcare services sector in the United States contributes 9% of the country's total greenhouse gas emissions.

• In Australia, the healthcare sector's carbon footprint accounts for 7% of the country's total greenhouse gas emissions.

• Renewable energy use in the healthcare sector is less than 1% worldwide.

These findings and recommendations underscore the significant environmental impacts of the healthcare sector, emphasizing the critical need for sustainable strategies to mitigate these effects and promote a healthier, more sustainable future for all (Karliner vd., 2020).

4. CONCLUSION AND EVALUATION

Corporate sustainability for healthcare organizations encompasses a range of suggestions and practices that can be applied in the social, environmental, and economic domains. Some of these recommendations include:

Energy Efficiency: Healthcare organizations can reduce electricity consumption by taking energy efficiency measures. For example, they can use energy-efficient light bulbs and optimize the operation and energy consumption of equipment by regularly maintaining them.

Digital Transformation: By transitioning to digital health records and utilizing telehealth services, healthcare institutions can reduce the need for physical resources, thereby promoting sustainability. These technologies also help in reducing the carbon footprint associated with patient and healthcare provider transportation.

Waste Management: Proper waste management plays an important role in ensuring sustainability. Healthcare organizations can develop a range of strategies for waste segregation, recycling, reuse, and disposal. These strategies may include waste reduction, recycling, waste management planning, using environmentally friendly materials, and controlling hazardous waste.

Green Energy: Healthcare organizations can reduce their carbon footprint by switching to green energy sources. They can use renewable energy sources such as solar, wind, or hydroelectric power to reduce energy costs.

Water Conservation: Healthcare facilities can implement systems to recycle and reuse water, reduce water wastage, and employ rainwater harvesting techniques. This not only conserves water but also reduces the operational costs in the long run.

Social Benefit: Healthcare organizations can create social benefit by raising awareness about environmental, health, and social responsibility issues. For example, they can organize education campaigns on environmental protection, the use of natural resources, recycling, and healthy living.

Partnerships and Collaborations: Building collaborations with environmental agencies, NGOs, and other stakeholders can amplify the impact of sustainability initiatives. These partnerships can lead to knowledge exchange, shared resources, and enhanced effectiveness in achieving sustainability goals.

Business Practices: Healthcare organizations can ensure sustainability by adopting environmentally friendly and sustainable business practices. For example, they can use eco-friendly cleaning supplies, reduce paper consumption, and use environmentally friendly materials that protect natural resources.

Incorporating Patient and Community Engagement: By actively involving patients and the local community in sustainability initiatives, healthcare institutions can foster a culture of collective responsibility and action. This can also enhance trust and collaboration between healthcare providers and the community they serve.

These recommendations, combined with a holistic approach that integrates the principles of sustainability into the core values and strategic planning of healthcare organizations, can help these entities achieve their sustainability goals. Moreover, this ensures that healthcare services are not only of high quality but also mindful of the environmental and societal impacts, leading to a sustainable future for both the healthcare sector and the communities they serve.

REFERENCES

- Asante Antwi, H., Zhou, L., Xu, X., & Mustafa, T. (2021). *Beyond COVID-19 Pandemic: An Integrative Review of Global Health Crisis Influencing the Evolution and Practice of Corporate Social Responsibility*. Healthcare (Basel, Switzerland), 9(4), 453. <https://doi.org/10.3390/healthcare9040453>
- Egea, J. M. (2008). *European General Practitioners' Usage of E-Health Services*. IGI Global, 541-550.
- Health care climate footprint report. (2019, Eylül 10). Health Care Without Harm. <https://noharm-global.org/documents/health-care-climate-footprint-report>
- International Council for Research and Innovation in Building and Construction, C. I. B., & United Nations Environment Programme International Environmental Technology Centre, U.-I. (2002). *Agenda 21 for sustainable construction in developing countries: A discussion document [Report]*. CSIR. <https://researchspace.csir.co.za/dspace/handle/10204/3511>
- Jack, S. M., Munro-Kramer, M., Williams, J., & D., S. (2021). Recognising and Responding to Intimate Partner Violence Using Telehealth: Practical Guidance for Nurses and Midwives. *Journal of Clinical Nursing*, 588-602.

- Karliner, J., Slotterback, S., Boyd, R., Ashby, B., Steele, K., & Wang, J. (2020). Health care's climate footprint: The health sector contribution and opportunities for action. *European Journal of Public Health*, 30(Supplement_5), ckaa165.843. <https://doi.org/10.1093/eurpub/ckaa165.843>
- Keeble, B. R. (1988). The Brundtland report: 'Our common future'. *Medicine and War*, 4(1), 17-25. <https://doi.org/10.1080/07488008808408783>
- Majid, M. (Energy, Sustainability and Society). Renewable Energy for Sustainable Development in India: Current Status, Future Prospects, Challenges, Employment, and Investment Opportunities. 2020, 1-36.
- Malthus, T. (t.y.). An Essay on the Principle of Population.
- Mio, C., & Venturelli, A. (2013). Non-financial Information About Sustainable Development and Environmental Policy in the Annual Reports of Listed Companies: Evidence from Italy and the UK. *Corporate Social Responsibility and Environmental Management*, 20(6), 340-358. <https://doi.org/10.1002/csr.1296>
- Moser, A. K. (2015). Thinking Green, Buying Green? Drivers of Pro-Environmental Purchasing Behavior. *Journal of Consumer Marketing*, 167-175.
- Padash, A., Bidhendi, G. N., Hoveidi, H., & Ardestani, M. (t.y.). Green strategy management framework towards sustainable development.
- Paris Anlaşması / T.C. Dışişleri Bakanlığı. (t.y.). Geliş tarihi 04 Temmuz 2023, gönderen <https://www.mfa.gov.tr/paris-anlasmasi.tr.mfa>
- Torjesen, I. (2020). NHS Aims to Become World's First "Net Zero" Health Service by 2040. *BMJ*, 1.
- UN Global Compact | 10 İlke. (t.y.). Geliş tarihi 04 Temmuz 2023, gönderen <https://www.globalcompactturkiye.org/10-ilke/>
- Valli, M., & Bolzani, V. (2019). Natural Products: Perspectives And Challenges for Use of Brazilian Plant Species in The Bioeconomy. *Anais da Academia Brasileira de Ciências*, 91.
- Watts, N., Amann, M., Ayeb-Karlsson, S., Belesova, K., Bouley, T., Boykoff, M., Byass, P., Cai, W., Campbell-Lendrum, D., Chambers, J., Cox, P. M., Daly, M., Dasandi, N., Davies, M., Depledge, M., Depoux, A., Dominguez-Salas, P., Drummond, P., Ekins, P., ... Costello, A. (2018). The Lancet Countdown on health and climate change: From 25 years of inaction to a global transformation for public health. *Lancet* (London, England), 391(10120), 581-630. [https://doi.org/10.1016/S0140-6736\(17\)32464-9](https://doi.org/10.1016/S0140-6736(17)32464-9)
- Valli, M., & Bolzani, V. (2019). Natural Products: Perspectives And Challenges for Use of Brazilian Plant Species in The Bioeconomy. *Anais da Academia Brasileira de Ciências*, 91.



Yasar, G. Y. (2011). Health Transformation Programme'in Turkey: an Assessment. *The International Journal of Health Planning and Management*, 110-133.

KATKI ORANI / CONTRIBUTION RATE	AÇIKLAMA / EXPLANATION	KATKIDA BULUNANLAR / CONTRIBUTORS
Fikir veya Kavram / <i>Idea or Notion</i>	Araştırma hipotezini veya fikirini oluşturmak / <i>Form the research hypothesis or idea</i>	Asst. Prof. Sibel Kahraman AK (Ph.D.) Assoc. Prof. Sarper YILMAZ (M.D.)
Tasarım / <i>Design</i>	Yöntemi, ölçeği ve deseni tasarlamak / <i>Designing method, scale and pattern</i>	Asst. Prof. Sibel Kahraman AK (Ph.D.) Assoc. Prof. Sarper YILMAZ (M.D.)
Veri Toplama ve İşleme / <i>Data Collecting and Processing</i>	Verileri toplamak, düzenlenmek ve raporlamak / <i>Collecting, organizing and reporting data</i>	Asst. Prof. Sibel Kahraman AK (Ph.D.) Assoc. Prof. Sarper YILMAZ (M.D.)
Tartışma ve Yorum / <i>Discussion and Interpretation</i>	Bulguların değerlendirilmesinde ve sonuçlandırılmasında sorumluluk almak / <i>Taking responsibility in evaluating and finalizing the findings</i>	Asst. Prof. Sibel Kahraman AK (Ph.D.) Assoc. Prof. Sarper YILMAZ (M.D.)
Literatür Taraması / <i>Literature Review</i>	Çalışma için gerekli literatürü taramak / <i>Review the literature required for the study</i>	Asst. Prof. Sibel Kahraman AK (Ph.D.) Assoc. Prof. Sarper YILMAZ (M.D.)

Hakem Değerlendirmesi: Dış bağımsız.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemiştir.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadığını beyan etmiştir.

Teşekkür: -

Peer-review: Externally peer-reviewed.

Conflict of Interest: The authors have no conflict of interest to declare.

Grant Support: The authors declared that this study has received no financial support.

Acknowledgement: -