

# Implementation of sustainability principles in service development and delivery

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## Abstract

The application of sustainability principles in service development and delivery is increasingly relevant as awareness of the importance of considering social, economic and environmental impacts grows. Sustainability in services includes natural resource management, and a focus on improving social welfare and achieving stable economic outcomes. Various service sectors such as health, education and energy have challenges and opportunities in integrating sustainability principles. This involves efficient use of resources, equitable access, and management of waste and emissions. In addition, collaboration between the public and private sectors is needed to create policies that support sustainability in services. With concrete measures such as the adoption of green technologies and increased consumer awareness, the service sector can contribute greatly to global sustainability goals. This knowledge on sustainability implementation can provide direction for the service sector in creating a more environmentally friendly and equitable future for society.

## Keywords:

Environmental economic; Green technology; Policy; Social services; Sustainability.

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## INTRODUCTION

Sustainability in services has become a major concern in many industrial sectors, given its widespread impact on the quality of life of communities and environmental preservation (Gryshova et al., 2020). The application of sustainability principles in services focuses on how to create long-term value

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by considering social, economic, and environmental sustainability. In recent years, more and more companies and institutions have been striving to balance profit achievement with positive contributions to societal and environmental well-being (Werhane et al., 2020). This is relevant in the public sector, and in the private sector that is committed to providing more environmentally friendly and socially responsible services (Stahel, 2017). There is also a more specific focus on how certain sectors can integrate sustainability into their service delivery (Caiado et al., 2018). For example, in healthcare services, sustainability can be applied in resource management, reduction of medical waste, and improving service accessibility without compromising quality. Similarly, in the education sector, sustainable services focus on the use of green technology and the provision of curricula that promote environmental awareness. This specific aspect shows how each sector can approach sustainability issues in a way that aligns with the characteristics of the services they offer (Dorsch et al., 2020).

One of the main issues in integrating sustainability principles into services is the lack of understanding of sustainability itself, both at the service provider level and the consumer level. Many service providers are not yet fully aware of the importance of implementing environmentally friendly practices in their operations, such as reducing energy consumption or more efficient waste management. Moreover, the obstacles in measuring the social and environmental impact of these services make the implementation of sustainability principles more difficult (Wolfson et al., 2013).

Additionally, the challenge of aligning the service business model with sustainability principles also includes higher cost factors (Breuer et al., 2018). The implementation of environmentally friendly technology or the procurement of sustainable materials often requires a significant investment. This becomes a constraint, especially for small and medium enterprises that have limited resources. According to a study by Bocken et al. (2014), the transition to a sustainable business model requires significant costs and can threaten short-term profitability, leading some service providers to tend to neglect the implementation of sustainability principles.

The global phenomenon that increasingly emphasizes sustainability in various sectors of life makes this topic highly relevant to observe (Spangenberg, 2021). A better understanding of how sustainability principles are applied in services can have a significant impact on society and the environment (Lindsey, 2011). Given its wide-ranging impact, this research has the potential to introduce innovative ways to design and manage services that are beneficial while considering environmental sustainability and social justice.

This research aims to identify ways to apply sustainability principles in the development and delivery of services, as well as to analyze their impact on social, economic, and environmental aspects. In this effort, the research will

highlight the challenges faced in integrating sustainability principles, both in terms of resources, costs, and impact measurement. Through this analysis, it is hoped that an effective approach can be found to create sustainable services without sacrificing quality and efficiency.

## **RESEARCH METHOD**

This research will use a literature review approach to analyze the application of sustainability principles in the development and delivery of services. Literature review is an effective method for collecting and analyzing relevant information from various secondary sources, such as academic journals, books, industry reports, and existing policy documents. By using this approach, the research can gain an understanding of sustainability practices that have been implemented in various service sectors. Literature review allows researchers to explore the underlying theories and concepts, as well as evaluate existing research on sustainability in the service sector. According to Saunders et al. (2019), a literature review is a very useful tool for identifying trends, challenges, and gaps in previous research that can provide direction for further studies.

In this literature review, the researcher will examine various scientific articles, policy reports, and case studies that discuss the application of sustainability principles in services, both in the public and private sectors. The research will focus on a comparative analysis of sustainability approaches across various sectors, such as education, health, and banking, as well as the social and environmental impacts they generate. Several previous studies have shown the importance of integrating sustainability principles in the service sector to achieve long-term success, both in economic, social, and environmental aspects (Caiado et al., 2018). By using this approach, researchers can identify various challenges and opportunities faced by service providers in implementing sustainability, as well as gain insights that can be applied more broadly.

## **FINDINGS AND DISCUSSION**

In a constantly evolving world, sustainability is becoming an increasingly important concept in every aspect of life, including service provision. Sustainable services are about preserving the environment and are closely related to social welfare and economic progress (Halme et al., 2004). These sustainability principles are no longer a secondary choice but have become an urgent necessity to ensure that societal and economic development does not damage the Earth, which is our home. The principle of sustainability in services focuses on how services can provide long-term benefits without harming future generations (Wolfson & Tavor, 2017).

The application of sustainability in the development and delivery of services requires a paradigm shift in how we view business processes (Bagheri

& Hjorth, 2007). The management of natural resources, social welfare, and economic efficiency must go hand in hand to create a service system that is profitable in the present and responsible for the future. Large business sectors, and the public and small business sectors must be able to integrate these sustainability principles into their operations, despite the existing challenges and limitations. With a focus on sustainability principles, every service sector can play a role in creating a more just and environmentally friendly world (Caiado et al., 2018). From the health sector, education, to the energy sector, every step taken to reduce negative impacts on the environment and society can bring about significant change. Knowledge about how these principles are applied can pave the way for the development of more sustainable service models in the future (Titu et al., 2019).

The principle of sustainability in the development and delivery of services refers to the effort to create services that meet current needs without compromising the ability of future generations to meet their own needs (Charter & Tischner, 2017). The application of sustainability requires the integration of social, economic, and environmental factors into all stages of service provision (Schaltegger & Wagner, 2017), from planning to implementation. Sustainability focuses on the management of natural resources and the social impacts that can arise from the provision of services to the community, as well as achieving stable economic outcomes (Elkington, 1997).

One way to implement sustainability principles in services is by optimizing resource efficiency, which means using natural resources wisely without causing environmental damage (Lindsey, 2011). For example, in the energy services sector, service providers can focus on the use of renewable energy, reduction of carbon emissions, and better waste management (Sachs, 2015). This also applies to other sectors, such as transportation services, where reducing fossil fuel consumption can be pursued through the transition to electric vehicles or more efficient public transportation systems.

In the social aspect, the principle of sustainability requires service providers to pay attention to the welfare of the community and ensure that the services provided are accessible fairly to all layers of society (Axelsson et al., 2011). In the education sector, for example, sustainability can be realized by prioritizing inclusivity, such as providing education that is accessible to children from various social and economic backgrounds. Healthcare services must also consider equitable access for the entire population, including those in remote areas or those who are less fortunate (Douthit et al., 2015).

From an economic perspective, sustainability requires service providers to consider long-term profitability without sacrificing service quality or environmental sustainability (Ozbekler & Ozturkoglu, 2020). For example, companies in the banking sector can implement a sustainable business model by providing loans to projects that support sustainability, such as renewable

energy or other sustainable developments. This can provide long-term financial benefits while also contributing to the achievement of global sustainability goals (Schaltegger & Wagner, 2017).

The implementation of sustainability in the service sector also requires supportive policies and regulations (Carballo-Penela & Castromán-Diz, 2015). The government can provide incentives for service providers that implement sustainable practices, such as tax reductions or access to special funding for environmentally friendly projects. The policy should also include strict oversight to ensure that the services provided indeed meet the established sustainability standards.

Furthermore, in the public service sector, the application of sustainability principles can also be seen in human resource management. Service providers can create a sustainable work environment by providing training on sustainability to employees (Law et al., 2017), raising awareness of the importance of sustainability in decision-making, and implementing policies that support employee well-being (Jones et al., 2014). Thus, sustainability becomes the responsibility of the service providers and all elements involved in delivering the service.

In terms of environmental sustainability, it is also important to pay attention to the service's life cycle itself (Liberacki et al., 2023). For example, in the service sector, sustainability can be applied by reducing paper usage or switching to more environmentally friendly digital systems. In transportation services, companies can adopt technologies that reduce pollution or use cleaner fuels. This reduces the negative impact on the environment and provides added value for service providers that can be promoted to consumers who are increasingly concerned about environmental issues (Dangelico & Pujari, 2010).

Services must also take into account the broader social impact (Alkire et al., 2019), for example, by considering how the services provided can improve the quality of life for the community. In the tourism sector, service providers can implement sustainability policies by preserving natural and local cultural heritage, as well as ensuring that the profits from tourism are enjoyed by local communities without harming the surrounding environment (Bramwell & Lane, 2011). This approach ensures that social sustainability is achieved in a fair and equitable manner.

In terms of waste management, the service sector must also focus on reduction, recycling, and efficient waste management (Wilts et al., 2016). This is very important in services that generate a lot of waste, such as the food and beverage sector. Service providers can reduce waste by using environmentally friendly raw materials, minimizing the use of single-use plastics, and ensuring that the waste generated can be recycled or managed in an environmentally friendly manner (Sahota, 2014).

The implementation of sustainability in services must also involve collaboration between the public and private sectors (Rashed & Shah, 2021). For example, the government can collaborate with large companies to develop and implement mutually acceptable sustainability standards, as well as provide technical and financial support to facilitate the adoption of sustainable practices in service provision (Seuring & Müller, 2008). This collaboration can accelerate the adoption of sustainability principles across various sectors and ensure that the achievement of sustainability goals can be realized more efficiently.

However, despite the importance of applying sustainability principles in services, there is a significant challenge in ensuring that all parties are involved (Lindsey, 2011). One of them is the lack of knowledge about sustainability among small service providers, who often do not have the resources to effectively implement sustainable practices (Baumgartner & Rauter, 2017). To address this, education and training focused on sustainability need to be strengthened to enhance the capacity of service providers in integrating sustainability into their operations.

It is also important to assess the long-term impact of sustainability practices in the service sector. Although immediate benefits may not always be visible, the implementation of sustainability principles can provide long-term advantages in the form of reduced operational costs (Reuter et al., 2010), improved company reputation, and the development of new markets that are more concerned with social and environmental issues. Thus, sustainability benefits the environment and society, and can become a profitable business strategy (Bocken et al., 2014).

The application of sustainability principles in the development and delivery of services is not an easy task, but it is very important to ensure that the services provided can offer long-term benefits. With the right approach that encompasses social, economic, and environmental dimensions, the service sector can make a significant contribution to achieving global sustainability goals. Challenges in implementing sustainability are unavoidable, but every effort made to address those challenges is a positive step towards a better world.

As public and corporate awareness of sustainability issues increases, the hope of seeing real changes in the way services are delivered grows stronger. The adoption of environmentally friendly technologies, the improvement of equitable access to services, and the efficiency in resource management are small examples of how the service sector can contribute to sustainability. All parties, from the government to the community, need to continue supporting and encouraging efforts to create services that are efficient and environmentally and socially responsible.

In the end, to ensure that sustainability can be realized in services, close cooperation between various sectors is necessary. The synergy between



government policies, private sector initiatives, and active community participation will greatly determine the extent to which sustainability principles can be effectively implemented. With the right approach and collective awareness, the future of sustainable and environmentally friendly services will become a reality that benefits all of humanity.

## CONCLUSIONS

The application of sustainability principles in the development and delivery of services is an important step to create services that meet current needs and contribute to social, economic, and environmental well-being in the future. In its implementation process, sustainability refers to the efficient management of natural resources and the provision of services that are fair, inclusive, and accessible to all layers of society. Sectors such as health, education, and energy have great potential to implement these principles, although they face various challenges, including resource limitations, high costs, and a lack of knowledge about sustainability. Nevertheless, small steps taken by service providers can bring significant changes in the long run, both for society and the environment.

As a suggestion, to accelerate the implementation of sustainability principles in the service sector, collaboration between the government, the private sector, and the community is necessary. Policies that support sustainability practices, such as incentives for environmentally friendly technologies and training for service providers on sustainability practices, should be prioritized. Additionally, more intensive education about sustainability for consumers will also help strengthen the demand for more responsible services. Sustainability in services must be a shared responsibility involving various parties, with a common goal of achieving a balance between human needs and the preservation of this planet.

## AUTHOR CONTRIBUTION

**Arif Rachman Putra:** Conceptualisation, Research Design, and Writing Entire Paper, **Didit Darmawan, Mila Hariani, Fayola Issalillah, Rahayu Mardikaningsih:** Data Collection, Methodology, **Samsul Arifin, Jahroni:** Data Analysis and Editing and Layouting, **Rafadi Khan Khayru:** Supervision and Conceptualisation. All Authors have read the final version of the paper.

## Declaration of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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