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FOSTERING BUSINESS-HUMAN SYNERGY: BUILDING A SUSTAINABLE FUTURE WITH TECHNOLOGY

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Abstract

Sustainability and technology are two critical concepts that have become inseparable in shaping the future of business and society. As businesses adopt sustainable practices, they realise that technology can be an enabler of sustainability initiatives, driving efficiency, reducing waste, and improving social and environmental impact. Moreover, fostering the synergy between business and humanity is critical for achieving sustainability goals. Businesses are responsible for considering their operations' impact on the wider community and engaging with stakeholders meaningfully. This conceptual note explores the potential of technology in fostering the synergy between business and humanity and how this can lead to a sustainable future. It defines the concepts of sustainability and technology and their significance in contemporary society, discusses the benefits of fostering the relationship between business and humanity, and highlights the role of technology in building a sustainable future. The note concludes by examining the challenges businesses face in adopting sustainable practices and the opportunities for businesses to overcome these challenges.

Keywords: Business, Conceptual, Humanity, Sustainability, Technology

1. Introduction

Sustainability has emerged as a critical concept for businesses and society, and technology has played a key role in enabling sustainability initiatives. The world faces numerous sustainability challenges that require the collaboration of technology, business, and humanity to build a sustainable future. Sustainability and technology have become inseparable concepts that will shape the future of business and society. In recent years, businesses have been taking a more proactive approach towards sustainability, recognising that the impact of their operations extends beyond financial performance to environmental and social outcomes (Brundtland, 2019).

As businesses adopt sustainable practices, they realise that technology can be an enabler of sustainability initiatives. Technology has the potential to drive efficiency, reduce waste, and improve the social and environmental impact of business operations (Tavanti, 2023). By harnessing the power of technology, businesses can become more sustainable, enhance their financial performance, and create value for their stakeholders (Okafor et al., 2021).

Furthermore, fostering the synergy between business and humanity is critical for achieving sustainability goals. Businesses are responsible for considering their operations' impact on the wider community and engaging with stakeholders meaningfully (Fordham et al., 2017). A collaborative approach that involves both businesses and society at large can lead to sustainable solutions that are both economically viable and socially responsible (Abreu et al., 2021). These can be seen through evidence from Malaysia by Yusoff et al. (2021). They found that transportation policy frameworks sustained with the integration of technology. A study by Ali et al. (2021) also found technology help for a sustainable blockchain framework in the Malaysian halal food supply chain.

In this conceptual note, we aim to explore the potential of technology in fostering synergy between business and humanity and how this can lead to a sustainable future. We will begin by defining the concepts of sustainability and technology and their significance in contemporary society. Then discuss the synergy between business and humanity and the benefits of fostering this relationship. Finally, we will highlight the role of technology in building a sustainable future, the challenges businesses face in adopting sustainable practices, and the opportunities for businesses to overcome these challenges.

2. Literature Review

2.1. Understanding the Key Concepts: Defining Sustainability and Technology

Sustainability and technology are critical concepts that have become increasingly important in contemporary society. As the world faces unprecedented environmental and social challenges, the need to define and understand these concepts has become essential. According to Heinberg and Lerch (2010), sustainability refers to something that has the capacity to be upheld or preserved over an extended period. Meanwhile, technology refers to the practical application of scientific knowledge for a specific purpose (Böhle et al., 2019).

The concept of sustainability is complex and multifaceted. The United Nations has defined sustainable development as "development that meets the needs of the present without compromising the

ability of future generations to meet their own needs" (United Nations, 2015). This definition emphasises the need for a balanced approach to development that considers the needs of present and future generations.

Technology plays a critical role in achieving sustainability goals. It can be used to reduce resource consumption, increase efficiency, and improve social and environmental outcomes. This definition highlights the importance of technology in solving practical problems and advancing social and economic progress.

2.2. The Role of Sustainability and Technology in Contemporary Society

Sustainability and technology have become increasingly intertwined in contemporary society. The use of technology is critical in achieving sustainability goals, with innovations such as renewable energy, green building materials, and sustainable transportation contributing to a more sustainable future.

Defining sustainability and technology is essential to understanding their role in contemporary society. Sustainability refers to a balanced approach to development that considers economic, social, and environmental factors, while technology is the practical application of scientific knowledge for a specific purpose. The relationship between sustainability and technology is dynamic, with technology playing a key role in driving sustainability initiatives and sustainability shaping the development and use of technology.

Technology has a crucial role in fostering sustainability. Advances in technology have led to the development of renewable energy sources, such as solar and wind power, which reduce carbon emissions and mitigate climate change. Furthermore, technology can help promote sustainable agriculture practices and reduce food waste through precision farming, vertical farming, and food traceability systems (Moussaid et al., 2023).

In addition, the use of technology can facilitate the circular economy by reducing waste and increasing resource efficiency. For example, recycling technologies can help transform waste into valuable resources, and 3D printing technology can enable the local production of products, reducing the need for transportation and logistics (Sarkis et al., 2020).

The importance of sustainability in technology is highlighted in various studies. Hosseini et al. (2019) present a model that aids decision-makers in choosing suitable building technology for post-disaster housing units based on the Life Cycle Thinking approach, which assesses the environmental, economic, and social aspects over the entire life cycle of a technology. Marinelli et al. (2019) summarise the contributions to the sustainability of heat pump systems for residential heating and cooling. In addition, Simtowe and Mausch (2019) analyse the reasons behind farmers' dis-adoption of climate-smart sorghum varieties in Tanzania. Further, Haryanto and Iswanto (2020) study the seriousness of pharmaceutical firms in Indonesia about social sustainability and their role in business innovation, competitive pressure, technology, and quality orientation. Nejad et al. (2021) propose an integrated decision-making model to investigate the social sustainability of the technology management process, and Baharudin and Marimuthu (2021) investigate the impact of business model, sustainability, and technology on the strengthening of sustainability practices of oil and gas public listed companies in Bursa Malaysia. Finally, Tajpour et al. (2022) examine the effect of knowledge management components on the

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sustainability of technology-driven businesses mediated by social media in emerging markets. Overall, these studies highlight the importance of sustainability in technology and provide insights into various aspects of sustainability in technology.

Sustainability activities are broad and include environmental, economic, and social initiatives at multiple levels. However, achieving sustainability requires an effective synergy between technology, business, and humanity. In this regard, the use of social media has become a significant tool for organisations to communicate their sustainability activities to stakeholders. According to Saunila et al. (2019), sustainability engagement is linked to green technology investments. Therefore, businesses must integrate green technology investments into their sustainability initiatives to achieve long-term sustainability.

Furthermore, Eglash et al. (2020) compare the problems created by the current mass production economy and potential solutions from an artisanal economy. The artisanal economy promotes local production and consumption, which helps to reduce the carbon footprint and enhance economic sustainability. To better understand creativity and sustainability from the perspective of people in different positions, Lemmetty et al. (2020) take advantage of a sociocultural approach. They explore manager and employee descriptions of creativity and its relationship with sustainability in the Finnish technology sector.

Through three research, Lee et al. (2021) also seeks to investigate a framework for sustainability indicators, analyse indicator weights, and evaluate performance in the context of a forest ecological resort. Zein et al. (2020) contend that the long-term viability of e-commerce and e-businesses depends on the successful fusion of entrepreneurship and technopreneurship. Using survey responses from 856 Ghanaian SMEs, Darkwah et al. (2021) discovered substantial positive connections between FDI inflow activities, economic sustainability decisions, environmental sustainability decisions, and social sustainability decisions.

Additionally, Park et al. (2021) conduct research on the organisational, technical, and human factors that influence the management and innovation capacity that contribute to the sustainability of content enterprises during COVID-19. Numerous individuals use the internet for business, study, and amusement during unplanned events like COVID-19. In order to increase the productivity of small and medium-sized firms (SMEs) and labour absorption, Hernita et al. (2021) plan to study how small and medium-sized enterprises' human resources (HR) might be strengthened. They examine the impact of enhancing human resource (HR) capacity, business productivity, technology utilisation, and business diversification on the sustainability of small and medium-sized businesses (SMEs), as well as the best ways to utilise the government's support of business development, productivity growth, business stability, and sustainability of SMEs.

Finally, Tajpour et al. (2022) sought to investigate how knowledge management elements affected the viability of social media-mediated technology-driven firms in developing regions. They investigate how social media mediates the relationship between knowledge management and the viability of technology-driven firms in emerging markets. In April 2022, this descriptive-correlational investigation was completed.

2.3. The Synergy between Business and Humanity

Human behaviour and values have a critical role in achieving sustainability. Adopting sustainable behaviours, such as reducing energy consumption, recycling, and using public transport, can significantly contribute to sustainability (Poortinga et al., 2004). The synergy between business and humanity is a concept that highlights the potential benefits of bringing together the economic goals of businesses and the well-being of society (Freeman et al., 2019). Synergy refers to the idea that the whole is greater than the sum of its parts. In the context of business and humanity, synergy suggests that the two can work together to create more significant outcomes than what they could achieve separately.

Businesses play a significant role in promoting sustainability. Companies can adopt sustainable business practices, such as eco-design, green supply chain management, and sustainable finance, to reduce their environmental impact and enhance their social and economic value (Eltayeb & Zailani, 2014).

Education and awareness-raising campaigns can help promote sustainable behaviours and values. For instance, Studying and deriving insights from pandemics, as well as incorporating these lessons into future design processes. The utilisation of a design thinking methodology in the context of preserving food consumer behaviour and attaining zero waste (Massari et al., 2022). Moreover, promoting sustainable lifestyles can lead to positive health outcomes, social benefits, and economic savings.

Moreover, at study proposes a conceptual framework that establishes a connection between strategic direction, innovation strategy, and corporate sustainability. This model aims to facilitate sustainable development inside organisations (van Lieshout et al., 2021). However, implementing sustainable business practices faces challenges such as employee resistance, lack of stakeholder support, and limited resources. Therefore, it is crucial to identify strategies to overcome these challenges and promote sustainable business practices.

The concept of cooperative partnerships between corporations and society has gained popularity in recent years (Adams, 2017). Many academics and businesspeople argue that organisations that put social and environmental concerns first are more likely to prosper in the long run. Businesses that prioritise growing profits, on the other hand, risk reputational harm, legal liabilities, and diminished customer loyalty.

Promoting harmony between business and humanity has several advantages. Making shared value is one important benefit (Porter & Kramer, 2019). Shared value is the notion that companies can generate financial gain while solving societal demands and problems. Businesses participating in charitable endeavours can develop close bonds with their clients, staff members, and communities. As a result, the company's standing and long-term profitability could benefit.

The Sustainable Development Goals (SDGs) of the United Nations can also be achieved through encouraging the synergy between business and humanity (Sachs et al., 2019). The SDGs are a set of 17 global objectives designed to advance sustainable development and address pressing social and environmental issues. Many companies match their plans with the SDGs in order to make money while having a beneficial social and environmental impact.

Recent studies have also highlighted the importance of fostering the synergy between business and humanity in the context of the COVID-19 pandemic (He & Harris, 2020). The pandemic has highlighted

the interdependence between businesses and society and the need for companies to prioritise the well-being of their stakeholders. Companies that have shown empathy and taken action to support their employees and communities have been found to be more resilient and better positioned for post-pandemic recovery.

Fostering the synergy between business and humanity can benefit companies and society significantly. By aligning their goals with societal needs and the environment, businesses can create shared value, enhance their reputation, and contribute to achieving the SDGs. The COVID-19 pandemic has further highlighted the importance of prioritising the well-being of stakeholders and the potential benefits of building resilient, sustainable businesses.

2.4. The Role of Technology in Building a Sustainable Future

Technology is essential for creating a sustainable future because it offers creative answers to societal problems. Initiatives in sustainable technology have effectively addressed the economic, social, and environmental problems facing industry and society. Technology promotes sustainability through energy efficiency and renewable energy sources, which lower carbon emissions and aid in shifting to a low-carbon economy.

Another way technology fosters sustainability is by developing smart cities, which use data and technology to improve efficiency and reduce waste in urban areas. Technology developments in renewable energy not only reduce environmental effects but also produce accessible, safe, and inexpensive energy sources for people. Housing and community settings can be powered in a healthy and sustainable manner (Breyer et al., 2022). In addition to lowering the health concerns connected with pollution, this has a considerable positive impact on energy security.

Additionally, digital technologies like blockchain and the Internet of Things (IoT) can support sustainable supply chains by enhancing transparency and traceability. Product-service systems innovation can support sustainable consumption habits. This offers a workable remedy for a sustainable lifestyle and addresses the problem of excessive consumption and waste that beset human cultures.

Furthermore, technology can facilitate sustainable practices in agriculture, such as precision farming, which optimises resource use and reduces waste. Precision farming uses data and technology to monitor soil conditions, crop growth, and weather patterns, allowing farmers to make informed decisions and reduce inputs such as water and fertiliser (Nashwan et al., 2019). Further, the use of technology to optimise resources not only helps to create a greener economic landscape, but also ensures the lifespan and health of our planet for future generations. It gives humanity the comfort that the resources on which they rely will not be frittered away, thereby maintaining their long-term well-being (Eskelinen et al., 2015).

Overall, technology offers many opportunities to promote sustainability in business and society. Successful sustainable technology initiatives can address environmental, social, and economic challenges, leading to a more sustainable future. In conclusion, fostering the synergy between business and humanity can benefit companies and society significantly. By aligning their goals with societal needs and the environment, businesses can create shared value, enhance their reputation, and contribute to achieving the

SDGs. The COVID-19 pandemic has further highlighted the importance of prioritising the well-being of stakeholders and the potential benefits of building resilient, sustainable businesses.

2.5. Challenges and Opportunities in Fostering the Synergy between Business and Humanity

Incorporating sustainability and technology into business operations can be challenging for many organisations. One of the major challenges is the high initial cost of adopting sustainable technologies and practices. This can be a barrier for small businesses that may not have the financial resources to invest in new technology or implement sustainable practices (Rizos et al., 2016). Additionally, some businesses may lack the expertise or knowledge to implement sustainable practices effectively, hindering their ability to incorporate sustainability into their operations. Furthermore, making changes to existing business practices to become more sustainable can be expensive. This can be a barrier for businesses, especially the small ones, that may not have the resources to invest in sustainability. Some customers would still choose to buy lower priced product over product that support sustainability agenda which might be quite expensive.

However, there are opportunities for businesses to overcome these challenges and foster synergy between business and humanity. One opportunity is to leverage partnerships with other organisations or stakeholders to share knowledge and resources. Collaborative partnerships can help businesses overcome knowledge and resource barriers and accelerate the adoption of sustainable practices (Laukkanen & Patala, 2014).

Another opportunity is to take a long-term perspective on sustainability and technology. Investing in sustainable technologies and practices may require an upfront cost, but it can lead to long-term cost savings and increased brand reputation (Kemp et al., 1998). By prioritising sustainability, businesses can differentiate themselves from competitors and attract consumers who prioritise sustainability in their purchasing decisions.

Moreover, businesses can leverage technological innovations to create new sustainable products and services that meet consumer needs. For example, developing sustainable materials, such as bioplastics, can lead to creating more sustainable products (Mohanty et al., 2002).

Incorporating sustainability and technology into business operations can be challenging, but there are opportunities for businesses to overcome these challenges and foster the synergy between business and humanity. By leveraging partnerships, taking a long-term perspective, and innovating with new technologies, businesses can become leaders in sustainable practices and drive positive social and environmental outcomes.

3. Future Research Avenues

The concept of building a sustainable future is complex, and there are many potential avenues for future research. One potential area of focus is the development of new sustainable technologies and products that can help reduce our environmental impact. Additionally, research can explore strategies for overcoming businesses' challenges in integrating sustainable practices into their operations. Another area

of research could be to identify effective strategies for changing societal attitudes towards sustainability, such as through education and awareness-raising campaigns.

Research might also look at how laws and regulations from the government influence sustainability. Policies, for instance, can reward sustainable behaviour and penalise unsustainable behaviour, but their efficacy may depend on a number of variables, including political will, public support, and industry cooperation. Research can also examine the potential contribution of cutting-edge technology, including blockchain and artificial intelligence, to the advancement of sustainability objectives.

4. Conclusion

In conclusion, this paper has explored the synergy between business and humanity in promoting sustainability and the role of technology in achieving this goal. We have defined sustainability, technology, and the synergy between business and humanity, highlighting the benefits of fostering this synergy. Additionally, we discussed the challenges businesses face in incorporating sustainability and technology into their operations and the opportunities to overcome these challenges.

Businesses should use technology in various ways to enhance sustainability and the interaction between businesses and people. Investing in renewable energy sources and implementing clean energy technology are two ways to reduce greenhouse gas emissions. Businesses can also use technology to improve how they use resources and manage trash, including recycling and upcycling.

Moreover, businesses should improve transparency and accountability by implementing sustainable reporting practices and engaging with stakeholders to ensure their sustainability goals align with society's expectations. Lastly, businesses should invest in training programs to educate their workforce on sustainable practices and technology, fostering a culture of sustainability within their organisations.

In summary, fostering the synergy between business and humanity is crucial to promoting sustainability and ensuring a better future for all. Businesses can play a critical role in achieving this goal by leveraging technology and embracing sustainable practices. Building a sustainable future requires collaboration between technology, business, and humanity. Research can help identify strategies for overcoming the challenges that each of these elements faces in contributing to sustainability and can help foster greater collaboration and synergy towards a more sustainable future.

Therefore, to foster synergy between technology, business, and humanity, businesses must integrate sustainability initiatives that promote environmental, economic, and social sustainability. The use of social media can enhance the communication of sustainability activities to stakeholders. Moreover, investments in green technology, local production and consumption, entrepreneurship, and human resource capacity building can contribute to long-term sustainability. Future research should focus on exploring effective strategies to integrate sustainability initiatives into business operations and examining the role of government policies in promoting sustainability.

Acknowledgments

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