





# How to Sustain Businesses in the Post-COVID-19 Era: A Focus on Innovation, Sustainability and Leadership

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Abstract: This study aims to discuss the universal and important theme of how innovation supports the growth of global firms, relying on two issues: technology adoption and sustainability in the global marketplace. In other words, the main goal of this research is to show how global innovation management can respond to difficult market conditions and maintain sustainability of businesses through problem solving. The electric vehicle sector was chosen as the object of the study as it faced unprecedented challenges brought about by COVID-19. The electric vehicle sector has emerged as a new model in the automotive sector with accumulations of innovative technologies and is destined to continue to evolve, from the perspective of achieving the Sustainable Development Goals (SDGs) backed up by policy interventions. The methodological tools of the conducted research were the methods of office research, analysis of primary and secondary data, bibliometric analysis of literature. The article presents the results of an empirical study based on primary data collection and analysis, the generalization of scientific work on the impact of innovations on ensuring sustainable business development. Based on a comparative analysis of the main models of conducting innovative research, such as the diffusion model, business model innovation, and Lewin's change management model, the most successful innovative solutions and the best practices of their implementation at specific companies are determined. The contribution of this study is to build on previous findings and academic discussions in the innovation field, analyse case studies of successful realization of sustainable business through innovative actions in response to unprecedented difficulties caused by the recent COVID-19 pandemic. The greatest contribution is to discuss the paths that innovation has successfully taken, with examples of specific companies, and to present a practical discussion agenda that will provide suggestions through stimulating further discussion in future research.

Keywords: electric vehicle, innovation, diffusion model, Covid-19, Sustainable Development Goals (SDGs).

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# How to Sustain Businesses in the Post-COVID-19 Era: A Focus on Innovation, Sustainability and Leadership

#### 1. Introduction

1.1 Background of the Study: Innovation and Creativity. Innovation is the key to success in businesses around the world, helping businesses succeed in the global marketplace and making companies more competitive (Dana et al., 2022). Innovation includes not only technology, but also useful and novel services, products, strategies, and business models, and can have a significant impact on upgrading an organization's customer service, changing the mindset of employers, and communicating and co-creating value among stakeholders. (Van Looy, 2021). From this perspective, there is no doubt that active involvement and contribution of business leaders will be key. This is because new innovations that help solve complex problems are essential in all areas of business, but it is the decision of leaders to discuss such directions, enumerate and consider possible options, and determine solutions. Although the words creativity and innovation are used in diverse ways and are not synonymous, creativity is one of the components of innovation that help bring new ideas for business success (Karami et al., 2020).

New ideas adopted in business must be innovative and useful, aligned with business objectives, and able to generate solutions to complex problems. In other words, creative ideas require discipline and wisdom to ensure that they lead to innovations aligned with the company's objectives and not result in being insignificant. Therefore, it is logical that innovation is about pursuing new opportunities or modifying a system that is working well, and creativity is the brain of the team, which means acquiring skills that will give rise to new ideas. Thus, the next important issue would be how to measure and evaluate innovation. Initially, measuring innovation and creativity differ from each other. While creativity is more difficult to measure because it refers to mental processes and ideas, innovation may be objectively measured with quantitative indicators and measures, such as operational improvements backed by creativity, improved quality of services and products, and improved and more efficient business processes (Karami et al., 2020).

1.2 Research Gap and Rationale of the Study. What then is the research gap to which this study contributes? When addressing this proposition, it may be useful to focus on styles of business innovation. Frequently, business innovation is categorized and compared to two types of innovation: disruptive and sustaining (Ho, 2022). Disruptive innovation enables small organizations to challenge large firms to successfully compete in business markets and thus gain competitive advantage (Al-Imarah & Shields, 2019). This type of innovation is often implemented in two ways: disrupting existing markets and disrupting the low end. Market disruption is inextricably linked to the creation of new market segments to serve a huge customer base that companies are unable to reach through their existing markets.

On the other hand, low-end disruption relates to a different perspective (and occasionally, ambition); organizations claim and enter segments at the bottom end of existing markets (Al-Imarah & Shields, 2019). Most companies around the world incorporate these two types of innovations into their business strategies to gain a competitive advantage over other companies and secure their market position. The COVID-19 pandemic has caused tremendous transformation in the day-to-day operations of companies due to the fragmentation and closure of business networks globally. This has created a negative cycle for many businesses, as it has impeded inter-business collaboration, sharing of resources, and co-creation of value (Christa & Kristinae, 2021). In such a disruptive environment, companies must seek avenues for economic and organizational growth through innovation, discovering and filling structural holes that set them apart from others in today's competitive business world, and taking business strategies to stay ahead of the curve (Markovic et al., 2021).

Humanity is still reeling from experiencing the unprecedented impact of COVID-19. Presently, when most developed countries have turned their attention to economic recovery and business support, it is imperative for social sciences to discuss, model, and reflect on future research and to practise how global corporations and business leaders navigated, implemented business strategies, and maintained sustainability by catalysing innovation in 2019 and beyond. This is a demanding task for the social sciences. Meeting this expectation and preparing the ground for discussion on the maintenance and development of business sustainability in a turbulent marketplace is the goal and purpose of this study.





## 2. Methodology

To achieve its objectives, this study takes the approach of expressing viewpoints through exploratory desk research discussions. Instead of empirical research using primary data and other data from surveys, a literature study was conducted to clarify and visualize issues and agendas that will contribute to further discussion and development by identifying discussion points (Sileyew, 2019). To address the unprecedented challenges that COVID-19 has imposed on humanity and to examine the process by which companies seek sustainability through innovative strategies to survive in the global marketplace, the studies used in the literature review were mainly based on discussions published since 2019. During our discussion, we also paid attention to facts and statistics based on publicly available secondary data to capture the latest conditions in the global marketplace and the latest survival strategies of companies amid turmoil.

#### 3. Literature Review

3.1. Global Business and Impact of Technology. Modernization and implementation of technology in production, transportation, global communications, etcetera, has aided businesses to effectively achieve their initiatives and evolve and develop their business models worldwide, thus enabling them to prosper. Corporate technology implementation has become an integral part of today's corporate behaviour, for example, through the implementation of software and computer systems, the introduction of infrastructures that enable global and seamless communication, and the resourceful dissemination and exchange of information through mobile devices (Brenner, 2018). Technology has further enabled the securing and delivering of services among stakeholders in a global setting with the advent of inexpensive and versatile applications such as social media, chat systems, and video conferencing tools. Technology has enabled Business to Business (B2B) and Business to Customers (B2C) customers to recognize and address their needs through different social media platforms; it has also supported the globalization of small businesses by enabling them to consider these options. Additionally, technology has contributed in terms of increasing the efficiency of communication and enabling companies to offer service products that meet their needs ahead of their competitors (Fernandez & Aman, 2018).

Not only in communication, but also in the field of manufacturing, technology has precisely tailored the processing of repetitive tasks in product creation, and, furthermore, advances in artificial intelligence (AI) and robotics have greatly enhanced the efficiency of global companies. For example, Amazon's front-loading robots, 'Ernie' and 'Bert', process over forty per cent of the company's orders, while Amazon's autonomous mobile robots help to improve delivery efficiency (Feiner, 2021). Mobile and information systems call for enhanced operational efficiency in companies, and investments in technology and innovation provide an answer to this challenge. Therefore, digital transformation (DX) of companies is also a timely theme, and as a response to changes in the corporate environment brought about by COVID-19, DX investments will amount to approximately US\$2.4 trillion (Figure 1).

| Global spending on digital transformation in 2024 | 2.4 trillion US\$                 |
|---|-----------------------------------|
| Most digitally competitive region                 | USA                               |
| Business No.1 priority during COVID-19            | Increasing operational efficiency |

Figure 1. Global Spending by Companies on Digital Transformation

Source: Statista, 2022b

3.2. Lewin's Change Management Model. Lewin's model states clearly what steps a company should bear in mind when implementing and planning change (Figure 2), namely, the three stages, unfreeze, change, and refreeze, which make corporate change possible (Rosenbaum et al., 2018). The first stage of the model, unfreeze, is the perception management stage in which affected stakeholders prepare for the organization's planned change. This can be called the preparation stage for embracing change; however, it is not so simple. This is because creating a change strategy and change vision with transparency and integrity requires eliminating resistance from affected stakeholders or gaining their understanding (Adam, 2022).

Once some degree of agreement has been reached among the parties involved, the next step is change, namely, the stage in which the desired change directions and practices are understood by the stakeholders of the organization and they are incorporated into the organization. The implementation of change; however,





requires change management. In other words, it is necessary to instil in employees the ability to adapt to change as well as the sense of being the driving force behind change. The final step is to reinforce and embed 'change' in the culture of the organization. In other words, it is a 'refreezing' of the acceptance and stabilization of change (Rosenbaum et al., 2018). Thus, to reach the third and final stage requires a simultaneous process of deflecting resistance, deepening understanding, fostering common understanding, and building employee skills and management capacity among the people involved.

One good example of this change management model in action is HSBC bank. The bank reduced its office space by forty per cent to accelerate remote and telecommuting work for its employees, with the goal of permanently adopting a hybrid work model. It was logical for HSBC to make digital banking a mainstay of its operations and to achieve a sustainable business model during COVID-19. This hybrid work policy was at the heart of the bank's innovative approach, given the modern working environment experienced by the bank during COVID-19. The substantial use of work from home (WFH) is an example of how HSBC, with the support of technology, has encouraged the adoption of a hybrid work model by reducing office space as well as of the way banking operations can operate remotely through the implementation of high-end technology (Flinders, 2021).

#### Change Management Model



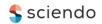
Figure 2. Lewin's Change Management Model

Source: Compiled by the authors

Technology in global business enhances business capabilities and further contributes to business expansion to reach more customers through the application of different technological tools. With the application of technology, organizations can collaborate with suppliers to replenish products and raw materials, and through increased communication and the accumulation of information, the capabilities of global firms are enriched (Fernandez & Aman, 2018). According to the diffusion theory, innovation is related to the rate and pattern at which new products, ideas, and practices spread to a population (Min et al., 2021). The introduction of the printing press in the 16th century, followed by the internet in the 20th century, and the parallels between them have led people around the world to attempt to test this diffusion theory; however, technological advances have made the convenience of new technology easier to apply (Akbari & Samimi, 2021). The diffusion theory is also discussed in analogy to the Facebook success story. Facebook's early users were students, and professionals and students in educational institutions were targeted, leading to an explosion of social use across borders (Chugh & Ruhi, 2018).

3.3. Innovation in the Global Market and Sustainability. Innovation is essential for the growth and survival of companies to gain competitive advantage, stay ahead of their competitors, and generate huge revenues (Krstić & Jovanović-Vujatović, 2022). However, while traditional innovation leads to the introduction of profitable services and products, it has been pointed out that it can exploit and harm natural resources and people (Yun et al., 2020). This innovation ambiguity has even created a new North-South problem, a paradox that makes the haves richer and the have-nots poorer (Black, 2018; Yun et al., 2020). Thus, we should seriously consider addressing the aspects of the negative, pervasive, and unintended negative effects on the environment and society that have resulted from companies' efforts to innovate sustainably around the world.

For this reason, sustainable innovation is encouraged. Sustainable innovation refers to intentional change by a company to create long-term environmental or social impacts that lead to economic benefits for the company. Sustainable innovation should be socially and environmentally friendly and provide comprehensive benefits to all parties involved. Organizations need to provide and invent new services and products that help achieve sustainability (Yun et al., 2020), and they should ensure responsible consumption and responsible production, as asserted by the UN Sustainable Development Goal 12 (Parks et al., 2022). In examining this proposition, a valid case in point is Bio-Bean, a B Corp accredited British start-up that has developed a biofuel made from coffee waste to power double-decker buses in London. In addition, the company upcycles ground coffee into environmentally friendly products such as coffee pellets and coffee





logs, thus generating US\$10 million in revenue in 2020 through sustainable innovation (Askew, 2022). Guiding corporate behaviour through certificates is a scheme that should be highly referenced, based on an objective evaluation of its results. This concept, if developed further, should also pay attention to the evocation of behavioural change in businesses and consumers through the concept of the Nudge theory. Oe and Yamaoka (2021) are in favour of policies that induce the behaviour of stakeholders through nudges that do not involve a financial burden and await the arrival of behavioural economics and new social policy theory. Furthermore, Oe et al. (2023 in printing) examine the factors essential for the certificate system to be effective in establishing coffee production and its value chain in Ethiopia. Indeed, when discussing corporate sustainability, we should reiterate the importance of fair and equitable business support centred on the intervention of the public sector and relevant organizations, the scrapping of new schemes and the transformation of the mind-set of those involved (Guttmann, 2021).

3.4. Cases from which We Learn about Innovative Sustainability. In regard to sustainable innovation, it would be useful to consider specific corporate efforts in the context of a case study. Not only the traditional innovation outcome of generating new products and services should be focused on, but also the aspects in which companies, through innovation, transform their existing service product delivery processes, streamline their relationships with employees and external stakeholders, and further increase their productivity (Lv et al., 2018). We discuss some examples of this. Fairphone in the Netherlands provides its customers with fair-sourced smartphones, using responsibly mined and recycled materials, and providing good working conditions and fair wages for its workers. The company focuses on reducing e-waste by manufacturing phones with modular designs for easy upgrades and repairs (Fairphone.com, 2022). It is easy to follow the effectiveness of this example, considering a perspective that captures the entire network from upstream to downstream of the supply chain. Thus, rather than only focusing on traditional product-service innovation to contribute to sustainable business, global companies, from large to small, are shifting the focus of sustainable innovation from this outlook to all stakeholders involved in the company, both upstream and downstream. They are steering in the right direction of transforming behaviour and focusing on innovation throughout the business network, resulting in an environmentally friendly, worker-friendly, and circular economy.

In the past, the main purpose and focus of companies has been to meet the demands of current consumers, with no concern for the needs of future generations or aspects of meeting the sustainability of future markets (Yu & Manthiram, 2021). In the future, the key to sanctioning sustainable innovation will be for companies to invest in technologies for improving the needs of future generations, rather than focusing on immediate profits (Haenlein et al., 2021). Sustainable innovation is not limited to the R&D department that develops innovative products and services, but also includes the department in charge of managing corporate behaviour and the marketing department that communicates with consumers to win their support for ethical corporate behaviour. Additionally, the strategy department should foster an organizational culture that enables and encourages sustainable corporate behaviour (Lv et al., 2018; Woo & Kang, 2021). For example, Statista (2022a) lists Schneider Electric as the most sustainable innovative company in the world, with a score of 83.2%, and its sustainable innovation is also highly correlated with productivity, which is a true indication of sustainable corporate behaviour (Table 1).

Table 1. Leading Sustainable Companies of 2021

| Company                                  | Country | Score (%) |
|--|---------|-----------|
| Schneider Electric SE                    | France  | 83.2      |
| Orsted A/S                               | Denmark | 82.7      |
| Bnaco do Brazil SA                       | Brazil  | 81.7      |
| Neste Oyi                                | Finland | 80.7      |
| Stantec Inc                              | Canada  | 80.5      |
| McCormick & Company Inc                  | USA     | 79.3      |
| Kering SA                                | France  | 78.4      |
| Mestso Outotec                           | Finland | 78.4      |
| American Water Works Company Inc         | USA     | 77.2      |
| Canadian National Railway Co             | Canada  | 77.1      |
| Rexel SA                                 | France  | 76.6      |
| Atlantica Sustainable Infrastructure PLC | UK      | 76.5      |

Source: Statista, 2022a

It is our next objective to research business model innovation. Innovation is the art of helping companies increase their advantage by being mutually supportive and creating value that changes their value





proposition to their customers (Pieroni et al., 2019); however, when considering innovation in the business model itself, it is easier to understand if we consider it along four approaches: the reinventor approach, the adapter approach, the maverick approach, and the adventurer approach. In this case, the business model innovations that Tesla has practised and will continue to practise are typical; however, they also present significant implications for other businesses. Initially, Tesla responded to the shortage of semiconductor chips by manufacturing electrical vehicles (EVs) and by 2021 had supplied approximately one million EVs (InsideEVs, 2022). The company is a visionary company that has successfully manufactured its products through sustainable innovation: the transition to renewable energy. In addition, Tesla removed USB ports and fancy features from its cars, allowing for the implementation of sustainable innovations during the global shortage of semiconductor chips, and provided customers with high value-added products (Kolodny, 2022).

Tesla showed that in times of crisis, it is possible to run a company successfully through sustainable innovation, rather than by destroying resources. Tesla demonstrated that to run a successful business globally through sustainable innovation, one must adopt the four approaches described above in operating a business. This proves the fact that sustainability can be achieved by a company through the introduction of a new design to drive innovation (Demirel & Kesidou, 2019). Identifying difficult market conditions, measuring the needs of consumers in the market, devising a product-service design to maximize resources, creating a prototype, and evolving the final product-service while awaiting market evaluation, is truly a business that follows a design thinking process. Tesla is a good example of a business model transformation based on a process of design thinking.

As Liu and Meng (2017) discussed, the innovation model has attracted the attention of researchers, especially in the field of new energy vehicles, which is mainly due to the impact car industries have on environmental problems facing Earth. Since the early 2010s, the business model innovation discussed by Girotra and Netessine (2013) has been analysed in the context of sustainability, especially for the manufacturing and service operations sectors. Mostaghel et al. (2022) raised another topic for a business innovation model, which is a digitalization-driven retail business model innovation. Through the difficult times experienced during the COVID-19 pandemic, we have learned a great deal about remote working and virtual connectedness, not only in business scenarios but also in our daily lives and free time lifestyle. This topic has cast a useful research paradigm for social sciences in discussing business innovations in the present circumstances. Furthermore, Chen (2022) suggested organizational culture has a mediating effect for building good relationships between business model innovation and corporate social responsibility (CSR), especially in the field of small-and medium-sized enterprises. To combine new emerging research themes, such as digitalization and CSR in the context of business model innovation, it would be important to evaluate the outcome of sustainable innovation, such as in the rise of technology giants (Parker, 2022).

3.5. Discussion. Companies all over the world have strived to gain a competitive advantage over others by creating innovative products and processes that captivate vast numbers of customers. The COVID-19 pandemic has placed a heavy burden on companies globally, forcing them to transform their business relationships. However, it has not only brought misfortune to global companies, but as previously mentioned, it has also created business opportunities for new successful companies through the implementation of new ingenuity and technology. Through innovative thinking and interaction with the market, some companies have succeeded in winning the confidence of customers in the market by adopting new applications and high-end technologies. In addition, the promotion of remote work and the introduction of hybrid work styles under the behavioural regulations of COVID-19 have changed people's values, transformed the way they worked, and changed protocols.

Consistently, this study reaffirms that use of technology is the golden rule for global companies as an innovation initiative and strategy for business success. Technology makes communication cost-effective and convenient and contributes to helping companies stay ahead of the curve. Advances in AI and robotics, when integrated into business, also assist global companies to become more efficient through better service delivery and more efficient handling of complex tasks. The Amazon example examined how the company applied AI and robotics to its operations to meet customer needs and increase business sustainability. Using two models, Lewin's change management model and the diffusion theory, this study examined how innovation supports the development, growth, and sustainability of a company by presenting the Facebook example.

Innovation is not only about products and services; it must contribute to the welfare of humanity and socioeconomic activities across generations, not only to current generations, but also not undermining the





needs of future generations. As companies around the world seek sustainable innovation, Bio-Bean and Fairphone are good examples of how developing responsible and ethical behaviour in the provision of product services has resulted in consumer support and revenue security. In the case of Tesla's business model innovation, the company demonstrated how, in the face of a critical shortage of semiconductor chips, it overcame the difficulties it faced and transformed itself into a sustainable business model through sustainable innovation based on a review of resources and the implementation of design thinking.

#### 4. Conclusion

- 4.1. Contributions. This study is intended to organize the authors' discussion on this topic as a preliminary step to empirical research through the collection and analysis of primary data, and to present future research questions. While arranging the core models of innovation research, such as the diffusion model, business model innovation, and Lewin's change management model, the paths followed by successful innovations were discussed together with case studies of specific businesses. The contribution of this study is to build on previous knowledge and academic discussions in the field of innovation, to analyze the cases of successful realization of sustainable business through innovative actions in response to unprecedented difficulties created by the recent COVID-19 pandemic, as well as to present a practical discussion agenda that will contribute to future debates.
- **4.2.** Limitations and Further Research Opportunity. To organize the future research agenda, this study is limited to identifying issues that need to be observed and to presenting an agenda for further discussion, based on the accumulated discussions to date. In other words, we recognize that the challenge for the future is to demonstrate the relationship between successful innovation and sustainability of businesses through the collection of primary data and its analysis, thus ensuring sustainable development through innovation for businesses in response to the unprecedented difficulties brought about by COVID-19. In fact, this is vital for companies. We conclude this study with the conviction that through empirical research, we will present far stronger suggestions and proposals to offer concrete recommendations on this issue.

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