

Asian Journal of Economics, Business and Accounting

Volume 23, Issue 12, Page 70-84, 2023; Article no.AJEBA.99247 ISSN: 2456-639X

Green Business/ Marketing: A Journey towards Ecofriendly and Sustainable Approaches?

Aakash Sirohi^{a*}

^a Hult International Business School, Campbellsville University, USA.

Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Article Information

DOI: 10.9734/AJEBA/2023/v23i12987

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/99247

Original Research Article

Received: 01/03/2023 Accepted: 02/05/2023 Published: 11/05/2023

ABSTRACT

During the last two decades, green and sustainable business models (GnSBMs) have become a popular topic of discussion among researchers, practitioners and policymakers. Preponderance of research and an expanding worldwide push to use GnSBMs need a full grasp of the state of research on GnSBMs. "Business should not be detrimental to society nor a parasite on society; rather, it should solely contribute positively to the well-being of society". As a result of this realization, sustainable business development has prompted a significant shift in the way that developing nations extend their business goals to include consideration of the global ecosystem and human development in accordance with the United Nations Sustainable Development Goals. This review focuses on the understanding o green business and marketing, history of green business models, practices of green business and various other aspects of green business.

Keywords: Company sustainability; environmental movement; green business.

Asian J. Econ. Busin. Acc., vol. 23, no. 12, pp. 70-84, 2023

^{*}Corresponding author: E-mail: theaakashsirohi@gmail.com;

1. INTRODUCTION

During the tail end of the 20th century, in response to an ever-increasing public concern about the long-term viability of economic development, the concept of "green business" was conceptualized and put into practice. The latter was, in turn, stirred up by the rising awareness of environmental concerns such as the rapid depletion of natural resources and the worsening of the quality of the environment. The ongoing expansion of the global economy has directly contributed to worries about the depletion of natural resources, air pollution, and wider issues relating to climate change [1-5]. However, given that climate change also impedes sound economic growth, a number of scholars have said, rather contradictorily that the world's economies won't be able to operate if the current rate of resource usage is maintained [6-9]. The development of "green business practices," which started to become more prevalent in the latter half of the 20th century, was motivated by ongoing worries the public's about the sustainability of economic growth and their growing understanding of environmental issues. In a landmark study released in 2011, the United Nations Environment Program (UNEP) described a green economy as one that "substantially reduces environmental hazards and ecological scarcities, while improving human well-being and social fairness." An economy that "improves human well-being and social fairness, while considerably lowering environmental dangers and ecological scarcities," is known as a "green economy." The establishment of such a green economy, particularly through business-related activities, may be a way to address the current environmental issues and make way for future economic growth that is more sustainable [10-13].

Few topics have drawn as much interest from academics and business experts as this one, including business sustainability and, more specifically, green and sustainable business models (therefore referred to as GnSBMs). Every sustainable business has a GnSBM, which serves the purpose of "helping describe, analyze, manage, and communicate (1) its sustainable value proposition to its customers, and all other stakeholders, (2) how it creates and delivers this value, (3) and how it captures economic value while maintaining or regenerating natural, social, and economic capital beyond its organizational boundaries," which should not come as a surprise. So, understanding GnSBMs and how they vary from traditional business models is necessary if one wants to achieve true company sustainability [14-24]. The actual environmental movement began in earnest in the middle of the 1960s, and it gained momentum throughout the next decades as a result of the ongoing exploitation and squandering of nonrenewable resources, as well as the sharp rise in consumption, waste. and environmental contamination. Businesses were forced to make an effort to include environmentally friendly management practices into their operating processes as society started to hold corporations accountable for finding solutions to many of the world's environmental challenges. In the 2000s, the phrase "green management" rose to prominence around the globe. Managerial leaders discovered at the same time that business and environmental goals had to be compatible. Implementing environmentally aware business practices not only enables organizations to uphold their social obligation but also act morally and responsibly towards the environment, but also improves financial outcomes, firm value, product innovation, and company sustainability [25-32].

According to institutional theory and stakeholder theory. businesses frequently engage in environmentally friendly practices and innovation to avoid economic costs and political pressure, to satisfy the expectations of various stakeholders by complying with social and moral norms, and to overcome the mimetic pressure of competitors. In other words, businesses do these things to avoid economic costs and political pressure, to satisfy the expectations of various stakeholders by complying with social and moral norms, and to innovate. Because of this, businesses have come around to the idea that effective green management has the potential to fulfill the requirements of all three of the sustainability principles. namely economic success. environmental integrity, and social equity. This is a consequence of the fact that businesses have come to accept the idea that efficient green management has the capacity to fulfil the requirements of all three of the sustainability principles. In a broad sense, green management practices may be seen as an initiative to enhance the environmentally responsible performance of an organization. This can be performed by turning inputs (natural resources and auxiliaries) into products or outputs (goods and services) with an attention on the balance and synergy of economic, social, and environmental advantages [33-39].

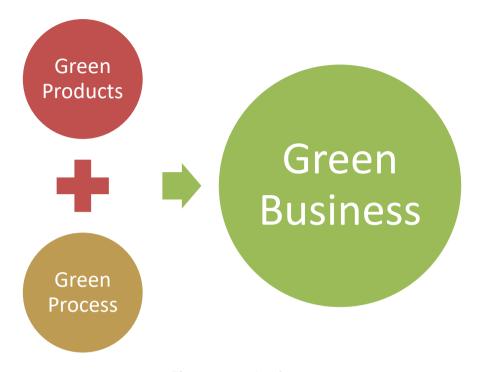


Fig. 1. Green business

2. GREEN BUSINESS, BRIEF HISTORY

2.1 Building Blocks of Business Model Concept

The concept of a business model (BM) has been around since the 1950s, but our current understanding of it was established in the 2000s to describe how e-commerce enterprises generate value for their customers [40-42]. The BM concept has evolved into a popular paradigm that is used to explain how a corporation earns, distributes, and receives money. A business model (BM) not only helps an organization establish credibility and a niche in target markets for its products, but it also helps an organization show its place in a given ecosystem. This is because a BM demonstrates an organization's position within the ecosystem [19,43,44].

In past studies, the constituent parts of a BM have been conceived of in a variety of different ways. According to what Magretta states, "All business concepts have two elements". The first part of this article discusses the whole production process, beginning with conceptualization and design and continuing with sourcing and assembly. The second section discusses all aspects of making a sale, including advertising, contacting potential customers, finalizing the contract, and delivering the product or service in

question. First, there is the offering; second, there is the market: third, there are the abilities of the business; fourth, there is the competitive strategy; fifth, there are economic components; and sixth, there are the personal factors of the entrepreneur or the investors. According to Johnson, a BM may be broken down into four distinct but interrelated components, which are as follows: (1) a value proposition, (2) resources, (3) procedures to convert inputs to final goods or services, and (4) the profit formula to provide an appealing return on investment are required for a business to be successful. In addition, Osterwalder identifies nine components of a BM that are grouped into four factors. These factors are as follows: (1) the product factor, which includes "customer segments," "channels," and "customer relationships," (2) the channel factor, which includes "channels," and (3) the customer relationship factor, which includes "customer segments," "channels," and " (2) the value propositions element, (3) the infrastructure management factor, which includes "critical resources," "key activities," and "key partners," and (4) the finance factor, which includes "resources," "key activities," and "key partners." According to Zott and Amit, a business model (BM) is characterized by the activities it engages in, the content of those activities, as well as its organizational structure and governance [45-52].

Sirohi; Asian J. Econ. Busin. Acc., vol. 23, no. 12, pp. 70-84, 2023; Article no.AJEBA.99247

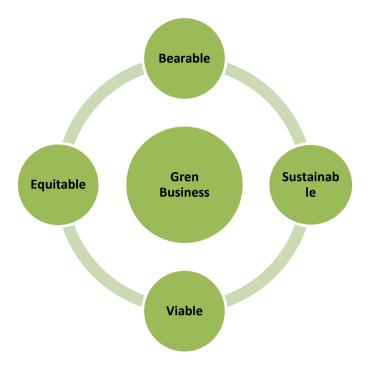


Fig. 2. Characteristics of green business

2.2 From Conventional Business Model to Green Business Model

The BM concept has been present in sustainability writing for almost ten years now [53]. Earlier research focused the on conceptualizations of GnSBMs [54-56], and showed how they blend economic, social, and environmental values in their value propositions. Despite these efforts, a clear description of GnSBMs is still missing from the scholarly literature. So, we characterize it as architecture of societal and ecological value that produces mechanisms for both delivering and capturing that are employed by a business [57-60]. Studies have shown that any BM can be transformed into a GnSBM by incorporating socio-environmental values into its operational designs, but other studies have shown that such BM transformations often fail [60-62].

As was shown, GnSBMs have become a widespread problem. There are two possible explanations for the explosion of research on GnSBMs in recent years. To begin, the institutional perspective argues that global enterprises are compelled to use GnSBMs by political, legal, and environmental considerations [63-65]. Second, the technological perspective suggests that the development of new GnSBMs or the transformation of existing BMs into green and sustainable ones has been facilitated by the

introduction of new technologies such as blockchain, digital sharing platforms , and renewable energies [66-68].

2.3 Environmentally Responsible Business Practices and Long-Term Performance

Green management is a form of environmentally sensitive corporate management that focuses on the voluntary prevention or ongoing reduction of pollution, waste, and emissions. Green management is also known as environmental management or sustainable management. Pane Haden defined green management as "the organization-wide process of applying innovation to achieve sustainability, waste reduction, social responsibility, and a competitive advantage via continuous learning and development and by embracing environmental goals and strategies that are fully integrated with the goals and strategies of the organization." This definition arrived at through an experimental was examination of the literature that handled historical, practical, and theoretical views. Green management is "the organization-wide process of applying innovation to achieve sustainability, waste reduction, social responsibility, and a As a result, green management in firms needs to go legal difficulties and encompass beyond conceptual practices and tools such as green production, green marketing, and green design in

addition to incorporating environmental considerations into the long-term goals of the organizations [69-74].

As enterprises adopted the perspective that their success depended on the availability of natural resources, their operations were constrained by and dependent on ecosystems. In other words, the strategy and the competitive advantage of probably the future will be based on characteristics that enable economically viable activities that are kind to the environment. As a result, the major focus of both commercial and academic research has shifted to concentrate on the sustainable performance of corporations. The social, environmental, and economic performance of a corporation are evaluated using the triple bottom line (TBL) methodology. This method of evaluation considers all three of these aspects to be equally important [75-77]. Indicators of both business operations and financial situations are used to assess economic performance. It is operationally tied to the capacity of businesses to minimize input prices, energy consumption, as well as waste treatment and disposal. Market share, profitability, and return on investment (ROI) are some of the financial metrics that are used to evaluate it. There is a correlation between a company's ability to preserve energy, decrease waste, and cut back on the usage of hazardous inputs and the environmental performance of the company. While social performance evaluates the degree to which an organization contributes to society beyond economic interests, such that the industry generates a profit while its actions do not harm society, environmental performance evaluates the degree to which an organization's operations have an impact on the environment [78-81].

3. GREEN MARKETING

When it comes to the things they purchase, today's customers are more knowledgeable and picky than ever before. When it comes to analyzing the companies that they support in terms of their influence on the environment and their commitment to sustainable practices, this is without a doubt the case. Because of this, a significant number of the most valuable and successful firms in the world are exploring projects to green their marketing [82].

3.1 Green Marketing?

Green marketing promotes eco-friendly goods, services, and causes. Green marketing

encompasses several eco-friendly methods [83]. Green marketing examples:

- Greening goods
- Recyclable product packaging
- Production-related greenhouse gas reduction
- Business sustainability
- Eco-friendly product marketing
- Profits in renewable energy or carbon offsets

As environmental concerns grow, so does green marketing. In 2020, 77% [84] of customers rated a brand's sustainability and environmental responsibility as extremely important or very significant. Due to rising demand, green marketing may be lucrative despite its higher cost. Locally created items in North America are more expensive than those made elsewhere with cheap labor, but their carbon impact is substantially lower. Some consumers and company owners value environmental benefits over pricing.

3.2 Strategies of Green Marketing

Business owners may use green marketing strategies beyond creating an eco-friendly product. Green marketing includes these [85]:

- Print marketing brochures using ecofriendly paper and inks
- electronic marketing instead of print
- Responsible trash disposal
- Eco-friendly or recycled packaging
- Sustainability certifications
- Effective packaging and shipping
- Green energy and agriculture
- Investment in carbon-offsetting
- Green enterprises value long-term sustainability over short-term profitability.

4. PRACTICES OF GREEN BUSINESS

The phrase "green economy" refers to an economic system that prioritizes social and environmental sustainability by providing more jobs and a stronger economy. This helps to ensure that future generations will be able to enjoy a high quality of life [86]. In this context, governmental and corporate program that aim to lower carbon emissions, encourage the use of energy that is efficient, and protect the environment have a role in influencing the expansion of job prospects as well as earnings.

Green growth is a form of economic expansion places that а priority on environmental sustainability. Creating a green economy is considered as a strategy to promote green growth [87]. The expansion of the economy has been beneficial to a great number of people, but it has come at the price of the natural resources of our planet and the integrity of our ecosystems [88]. To achieve greener industrial growth, which is especially important in light of the ongoing rise in the human population, investment and innovation that bolsters environmental sustainability and supports new economic prospects might be stimulated. This would be a good way to achieve greener industrial growth [89].

Companies that operate in accordance with the principles of environmental sustainability, attempt to decrease the negative impacts that their activities have on the environment, and priorities the use of renewable energy sources are considered to be more environmentally friendly [90]. To be more exact, one that meets the criteria of a "green business" is one that manufactures solar photovoltaic modules [91]. For the purpose of this investigation, we shall refer to "green business practices" as those procedures that a company implements in order to decrease the amount of damage that its operations do to the natural world, the economy, and society in general [92].

According to Walley and Taylor, who developed a typology of green entrepreneurs, the term "green" denotes an activity that is directed towards the long-term preservation of the natural environment. They use the phrases "green business" and green entrepreneurship" interchangeably since both of these endeavors aspire to benefit the planet in both tangible and intangible ways. Green business which emerged as a response to the rapid rate at which the world's population is growing, industrialization and economic development holds the promise of operations that are not only efficient and riskfree, but also kind to society and the environment. This is the promise of green entrepreneurship [93,94]. The terms "eco entrepreneurship." "eco preneurship." "environmental entrepreneurship," "sustainable entrepreneurship," "ecological entrepreneurship," "enviropreneurship," and "sustainopreneurship" are among the most common that are used to refer to this kind of enterprise. All types of business owners, whether they run a small firm, an eco-friendly business, or a green enterprise, share a same objective: to have a smaller negative impact on the surrounding environment [94]. "value creation via ecological ideas and things" another method describe is to green entrepreneurship. "Entrepreneurship with an environmental perspective" another is approach to describe green entrepreneurship [95,96].

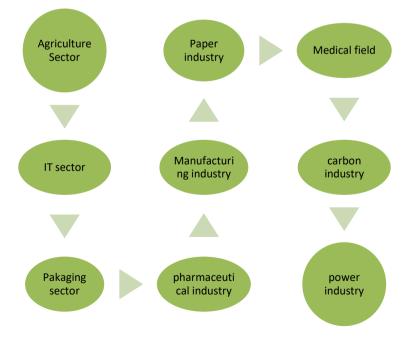


Fig. 3. Green business in different sectors

In addition, the ideals of green entrepreneurship and green business, as well as the circular economic svstem. all share the same fundamental values in their quest to have a less negative influence on the environment. For instance, low-grade lumber is a byproduct of high-grade timber that is produced by wood enterprises; nonetheless, it is still potentially useful in other contexts within a circular economic system [97,98]. This notion not only helps the business, but it also helps the by reducina environment emissions and improving other environmental aspects. These beneficial impacts on the environment aid the economy as well [99-101]. When a corporation makes the decision to become more cognizant of its impact on the environment, it may do so in a variety of ways. The United States Small Business Administration (SBA) provides advice to companies on a wide number of issues. including energy efficiency, waste management, and the utilization of renewable energy sources, amongst others [102-104], who studied the adoption of such green business practices among small manufacturing enterprises in the Greater Chicago area, found that the most common green practices implemented in these firms were adopting energy efficiency in their facilities and recycling materials such as metal, paper, and plastics. These were found to be the most common green practices implemented in these firms. A similar study was carried out by Depken and Zeman [105] on small and mediumsized businesses (SMEs) in the state of Iowa. They discovered that waste minimization and recycling were the most common green initiatives, followed by the implementation of energy efficiency measures. Depken and Zeman's research was published in 2018. According to the findings of research carried out by Chang and Slaubaugh [106], businesses across the United States choose environmentally friendly practices such as reducing the amount of paper they use, conserving water, and implementing technology that is more energy efficient because of the positive effects these practices have on their bottom lines [107].

4.1 Green Energy

Wind, solar, and geothermal energy have made commercial enterprises more sustainable for years. Business-to-consumer marketplaces are adopting renewable energy and novel energy sources. Solar panels may balance company consumption and expenditures, much like in homes. One firm turns food waste and sewage into electricity [108].

4.2 Zero Waste

Energy, materials, and food waste all run counter to eco-friendly practices. An estimated 70 billion pounds of food are wasted every year in the United States, according to Feeding America. More greenhouse gases with a larger global warming potential than carbon dioxide are produced as a result of this food waste. Donating unsold food to local homeless shelters and food banks is one way that urban eateries, grocery shops, and food manufacturers are reducing waste. However, food market owners are rethinking their operations with an eye on cutting down on food waste by creating zero-waste shops and recipe-based meal delivery services [109].

4.3 Appliances That Save Energy

Energy efficiency and other green business developments are having an impact on the home improvement industry and consumer decisionmaking. Companies in the building industry and service industry for the house the are increasingly providing with customers environmentally preferable choices. New appliances with high Energy Star ratings, tankless water heaters, solar panels, and insulated windows or window film are common examples of these trendy eco-friendly items. The use of salvaged or recycled materials for a wide range of home restoration applications rather than brand-new materials and fixtures is just one example of how many construction companies are implementing green business trends into their building and sourcing practices [110].

4.4 Using Eco-Friendly Methods

Adding a recycling bin and encouraging staff and customers to go paperless aren't the only ways that tech firms and corporate enterprises may lessen their impact on the environment. When computers and other electronics are left on overnight or when animated screen savers are activated, they consume a significant amount of power. Turning off the automatic screen saver and having workers power down their devices at the end of the workday are two simple ways in which offices may take a more environmentally friendly tack. Electronics with high Energy Star ratings or EPEAT designations are available for businesses with the means to upgrade their current equipment. One of the most sought-after perks of working in the IT and media sectors is the opportunity to do some or all of one's work from home. Because to the high carbon footprint of transportation and the increased energy and financial expenses associated with bigger office facilities, this is also a green business trend [111].

4.5 Green Finance

Green finance is geared on helping communities fund program that benefit the environment, such as environmentally responsible farming practices. Green finance also often prioritizes the funding of educational possibilities, creative initiatives, and local environment projects. The focus of green finance is on maximizing social profit. Green finance aims to back initiatives that are good for the environment and the community while still generating a profit [112].

5. THE GREEN BUSINESS: MORE THAN JUST A FINANCIAL COLOR

In addition to more conventional indicators of a company's level of success, such as its profit margins and return on investment, the concept of sustainable business growth has emerged as an essential component of the structure of modern businesses. The Millennium Development Goals

of the United Nations (UN) and, more recently, Sustainable Development Goals, have the supported initiatives that have helped usher in a paradigm change towards an emphasis on things other than financial gain. This move has helped usher in a new era of global development (SDGs). Yet, both developing nations and developed countries face challenges when attempting to incorporate corporate social responsibility and innovation into sustainable company development. This is necessary in order to address the existing environmental issues that put public health at risk. According to the United Nations, in order for us to achieve these objectives, we will need to embrace new economic paradigms, adjust company and consumer consumption patterns of natural resources, put adaptive policies into place, and make commitments to restrict resource usage [103.113.114].

5.1 Thoughts on a Sustainable Businesses

In the realm of business. demonstrating awareness of and responsiveness to concerns regarding social and environmental welfare is not a novel concept. Corporate executives and company owners are becoming more and more connection conscious of the between environmental systems, social welfare (such as community and public health), and the

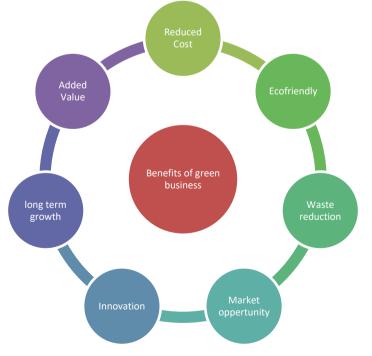


Fig. 4. Some benefits of green business

Sirohi; Asian J. Econ. Busin. Acc., vol. 23, no. 12, pp. 70-84, 2023; Article no.AJEBA.99247

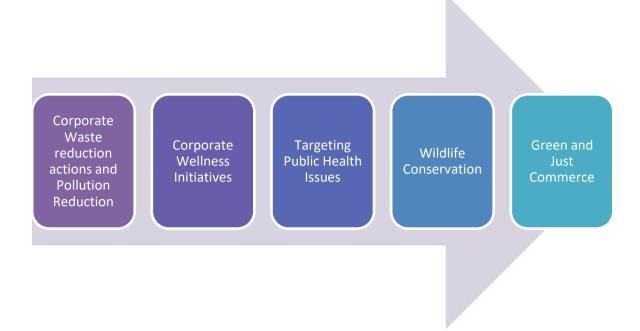


Fig. 5. Environmental sustainability and public health

well-being and success of their own enterprises in today's world [115]. In response to this knowledge, they have integrated environmentally responsible business practices into the fundamental aspects of their operations. Organizational strategies that incorporate environmental protection, economic development and stakeholder value improvement. In the everevolving new business age, the introduction of new methods to create value and fulfill the varying expectations of many stakeholders has opened the way for organizations to implement a variety of sustainable business initiatives. In excess of twenty years ago, well-known Michael Porter, a professor at Harvard Business School, is the one who proposed the Porter hypothesis, which asserts that "environmental regulation can benefit companies by nudging them to explore their current production methods and eliminate costly waste that they have been blissfully unaware of" [116,117].

5.2 Business Environmental Sustainability and Public Health

Companies are rapidly becoming environmentally sustainable as a result of their adoption of cutting-edge business methods such as corporate social responsibility and transaction-based leaning. This new style of thinking has a number of benefits, one of which is that it has the potential to have a significant beneficial influence on the well-being of society.

6. CONCLUSIONS

"Business should not be detrimental to society nor a parasite on society; rather, it should solely contribute positively to the well-being of society". As a result of this realization, sustainable development has prompted business а significant shift in the way that developing and developing nations extend their business goals to include consideration of the global ecosystem and human development in accordance with the United Nations Sustainable Development Goals. Building public trust and attaining corporate status both need the incorporation of business practices that include corporate social (CSR) total responsibility and business leadership (TBL) to profit objectives. This is of utmost importance when businesses are responding to the demands of customers by advancing material acquisition and processing processes that are beneficial to the general public's health.

As a consequence, these initiatives position responsible firms in the market, which ultimately results in the generation of a base of devoted customers. Hence, the influence of sustainable business practices provides a chance to solve global environmental circumstances while also making progress towards commercial objectives. These conditions include carbon emissions, ewaste, and the conservation of natural habitats. Understanding the effect that a company's environmental sustainability has on public health and making use of management tools to evaluate the corporate status and the viability of sustainable business initiatives are two essential components of adopting a socially responsible strategy.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

- 1. Balsalobre-Lorente D, et al. How economic growth, renewable electricity and natural resources contribute to CO2 emissions? Energy Policy. 2018;113:356-367.
- 2. Rao C, Yan B. Study on the interactive influence between economic growth and environmental pollution. Environ Sci Pollut Res Int. 2020;27(31):39442-39465.
- 3. Riekhof MC, Regnier E, Quaas MF. Economic growth, international trade, and the depletion or conservation of renewable natural resources. Journal of Environmental Economics and Management. 2019;97:116-133.
- 4. Rosales J. Economic growth, climate change, biodiversity loss: distributive justice for the global north and south. Conserv Biol. 2008;22(6):1409-17.
- Zhu L, et al. Do economic activities cause air pollution? Evidence from China's major cities. Sustainable Cities and Society. 2019;49:101593.
- 6. Abidoye BO, Odusola AF. Climate change and economic growth in Africa: an econometric analysis. Journal of African Economies, 2015;24(2):277-301.
- 7. Alagidede P, Adu G, Frimpong PB. The effect of climate change on economic growth: evidence from Sub-Saharan Africa. Environmental Economics and Policy Studies. 2016;18:417-436.
- Chandio AA, et al. Short and long-run impacts of climate change on agriculture: an empirical evidence from China. International Journal of Climate Change Strategies and Management. 2020; 12(2):201-221.

- Lal P, Alavalapati JR, Mercer ED. Socioeconomic impacts of climate change on rural United States. Mitigation and Adaptation Strategies for Global Change. 2011;16:819-844.
- 10. Gibbs D. Urban sustainability and economic development in the United Kingdom: exploring the contradictions. Cities. 1997;14(4):203-208.
- 11. Michaud G, Punctuating the equilibrium: A lens to understand energy and environmental policy changes. International Journal of Energy Research. 2019;43(8):3053-3057.
- 12. Severo EA, De Guimarães JCF, Dellarmelin ML. Impact of the COVID-19 pandemic on environmental awareness, sustainable consumption and social responsibility: Evidence from generations in Brazil and Portugal. J Clean Prod. 2021;286:124947.
- Čekanavičius L, Bazytė R, Dičmonaitė A. Green business: challenges and practices. Ekonomika. 2014;93(1):74-88.
- 14. Barbieri R, Santos DFL. Sustainable business models and eco-innovation: A life cycle assessment. Journal of Cleaner Production. 2022;266:121954.
- 15. Curtis SK, Mont O. Sharing economy business models for sustainability. J Clean Prod. 2020;266:121519.
- Dyllick T, Muff K. Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true business sustainability. Organization & Environment. 2016;29(2):156-174.
- 17. Gao J, Bansal P. Instrumental and integrative logics in business sustainability. Journal of Business Ethics. 2013;112:241-255.
- Agrawal VV, Bellos I. The potential of servicizing as a green business model. Management Science. 2017;63(5):1545-1562.
- Foss NJ, Saebi T. Fifteen years of research on business model innovation: How far have we come, and where should we go? Journal of Management. 2017;43(1):200-227.
- 20. Franceschini S, Pansera M. Beyond unsustainable eco-innovation: The role of narratives in the evolution of the lighting sector. Technological Forecasting and Social Change. 2015;92:69-83.
- 21. Dentchev N, et al. Embracing the variety of sustainable business models: A prolific field of research and a future research

agenda. Journal of Cleaner Production. 2018;194:695-703.

- 22. Lüdeke-Freund F. Sustainable entrepreneurship, innovation, and business models: Integrative framework and propositions for future research. Business Strategy and the Environment. 2020;29(2):665-681.
- 23. Yip AW, Bocken NM. Sustainable business model archetypes for the banking industry. Journal of Cleaner Production. 2018;174:150-169.
- 24. Schaltegger S, Lüdeke-Freund F, Hansen EG. Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. Organization & Environment. 2016;29(3):264-289.
- 25. Pane Haden SS, Oyler JD, Humphreys JH. Historical, practical, and theoretical perspectives on green management: An exploratory analysis. Management Decision. 2009;47(7):1041-1055.
- 26. Roh T, Lee K, Yang JY. How do intellectual property rights and government support drive a firm's green innovation? The mediating role of open innovation. Journal of Cleaner Production. 2021;317:128422.
- Banerjee SB. Managerial perceptions of corporate environmentalism: Interpretations from industry and strategic implications for organizations. Journal of Management Studies. 2001;38(4):489-513.
- 28. Nattrass B, Altomare M. The natural step for business: Wealth, ecology and the evolutionary corporation. New Society Publishers; 1999.
- 29. van der Linde C. Green and competitive: ending the stalemate; 1995.
- 30. Wu L, Liu H. How bricolage influences management in high-polluting areen The manufacturing firms: role of stakeholder engagement. Business Strategy and the Environment. 2022; 31(7):3616-3634.
- 31. Li Z, Liao G, Albitar K. Does corporate environmental responsibility engagement affect firm value? The mediating role of corporate innovation. Business Strategy and the Environment. 2020;29(3):1045-1055.
- 32. Liao Z. Is environmental innovation conducive to corporate financing? The moderating role of advertising expenditures. Business Strategy and the Environment, 2020. 29(3):954-961.

- Li, X, et al. Entrepreneurial orientation and green management in an emerging economy: The moderating effects of social legitimacy and ownership type. Journal of Cleaner Production, 2021;316:128293.
- 34. Menguc B, Auh S, Ozanne L. The interactive effect of internal and external factors on a proactive environmental strategy and its influence on a firm's performance. Journal of Business Ethics. 2010;94:279-298.
- 35. Almaqtari AF, et al. Exploring the impact of sustainability, board characteristics, and firm-specifics on firm value: A comparative study of the United Kingdom and Turkey. Sustainability. 2022;14(24):16395.
- 36. Suk S, Liu X, Sudo K. A survey study of energy saving activities of industrial companies in the Republic of Korea. Journal of Cleaner Production. 2013;41:301-311.
- Berry MA, Rondinelli DA. Proactive corporate environmental management: A new industrial revolution. Academy of Management Perspectives. 1998;12(2):38-50.
- Lee KH. Why and how to adopt green management into business organizations? The case study of Korean SMEs in manufacturing industry. Management Decision. 2009;47(7):1101-1121.
- Raharjo K. The role of green management in creating sustainability performance on the small and medium enterprises. Management of Environmental Quality: An International Journal. 2019;30(3):557-577.
- 40. Bellman, R, et al. On the construction of a multi-stage, multi-person business game. Operations Research. 1957;5(4):469-503.
- Alt R, Zimmermann HD. Preface: introduction to special section-business models. Electronic Markets. 2001;11(1):3-9.
- 42. Chesbrough H, Rosenbloom RS. The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. Industrial and Corporate Change. 2002;11(3):529-555.
- 43. Teece DJ. Business models, business strategy and innovation. Long Range Planning. 2010; 43(2):172-194.
- 44. Snihur Y, Zott C, Amit R. Managing the value appropriation dilemma in business model innovation. Strategy Science. 2021;6(1):22-38.

- 45. Magretta J. Why business models matter. Harv Bus Rev. 2002;80(5):86-92,133.
- 46. Morris M, Schindehutte M, Allen J. The entrepreneur's business model: toward a unified perspective. Journal of Business Research. 2005;58(6):726-735.
- 47. Zott C, Amit R. Business model design: An activity system perspective. Long Range Planning. 2010;43(2):216-226.
- 48. Dalenogare LS, et al. Building digital servitization ecosystems: An analysis of inter-firm collaboration types and social exchange mechanisms among actors. Technovation. 2023; 124:102756.
- 49. Öberg C. Towards a typology of sharing economy business model transformation. Technovation. 2023;123:102722.
- 50. Froese T, et al. Degrowth-oriented organisational value creation: A systematic literature review of case studies. Ecological Economics. 2023;207:107765.
- 51. Vernay AL, Sebi C, Arroyo F. Energy community business models and their impact on the energy transition: Lessons learnt from France. Energy Policy. 2023;175:113473.
- 52. Zhu ZY, Xie HM, Chen L. ICT industry innovation: Knowledge structure and research agenda. Technological Forecasting and Social Change. 2023;189:122361.
- 53. Stubbs W, Cocklin C. Conceptualizing a "Sustainability Business Model". Organization & Environment. 2008;21(2):103-127.
- 54. Birkin F, et al. New sustainable business models in China. Business Strategy and the Environment. 2009;18(1):64-77.
- 55. Høgevold NM, Svensson G. A business sustainability model: a European case study. Journal of Business & Industrial Marketing. 2012;27(2):142-151.
- 56. Hutchinson D, Singh J, Walker K. An assessment of the early stages of a sustainable business model in the Canadian fast food industry. European Business Review. 2012;24(6):519-531.
- 57. Biloslavo R, Bagnoli C, Edgar D. An ecocritical perspective on business models: The value triangle as an approach to closing the sustainability gap. Journal of Cleaner Production. 2018;174:746-762.
- 58. Boons F, Lüdeke-Freund F. Business models for sustainable innovation: state-ofthe-art and steps towards a research agenda. Journal of Cleaner Production. 2013;45:9-19.

- 59. Kleine A, von Hauff M. Sustainabilitydriven implementation of corporate social responsibility: application of the integrative sustainability triangle. Journal of Business Ethics. 2009;85(3):517-533.
- 60. Green Business, in Partnerships for the Goals, W. Leal Filho, et al, Editors. Springer International Publishing: Cham. 2021;561-561.
- 61. Green Business Practices, in Partnerships for the Goals, W. Leal Filho, et al, Editors. Springer International Publishing: Cham. 2021;561-561.
- 62. ADB, Daniele Ponzi. The Business of Greening. Policy Measures for Green Business Development in Asia. ADB Sustainable Development working paper series, no 59; 2019.
- Bisgaard T, Høgenhaven C, Henriksen K, Bjerre M. Short guide to green business model innovation. Nordic innovation publication, 2012:19. Norden; 2012. Available:http://www.divaportal.org/smash/get/diva2:707241/FULLT EXT01.pdf.
- Bocken N, Evans S, Miller K. Assessing the environmental impacts of new circular business models. Conference "New Business Models" – Exploring a changing view on organizing value creation, Toulouse, France; 2016.
- 65. Danish Business Authority. National Operational Programme for the European Regional Development Fund, 2014–2020. Denmark; 2014.
- 66. EC-JRC. International Reference Life Cycle Data System (ILCD) Handbook --General Guide for Life Cycle Assessment Detailed Guidance. First Edition March 2010. EUR 24708 EN'. Luxembourg: Publications Office of the European Union; 2010.

DOI:https://doi.org/10.2788/38479.

- 67. European Commission. Interreg: European Territorial Co-operation; 2019. Available:https://ec.europa.eu/regional_poli cy/en/policy/cooperation/europeanterritorial/ Accessed 2020-06-04.
- 68. FOR A. Green business models in the Nordic region: a key to promote sustainable growth, green paper for the Nordic Council of Ministers, FORA, Copenhagen; 2010.
- 69. Fund for Green Business Development. Overview of projects supported by the Fund for Green Business Development; 2015.

Available:https://groenomstilling.erhvervsst yrelsen.dk/sites/default/files/media/overvie w_of_projects_supported_by_the_fund_for _green_business_development.pdf [last accessed 03-09-2019].

- Goedkoop M, Mieras E, Gaasbeek A, Contreras S. How to make the life cycle assessment team a business partner, in: Sonnemann and Margni (eds) Life Cycle Management, Dordrecht: Springer Netherlands. 2015;105–115. DOI:https://doi.org/10.1007/978-94-017-7221-1_9.
- Geerken T, Schmidt J, Boonen K, Christis M, Merciai S. Assessment of the potential of a circular economy in open economies – case of Belgium. J Clean Prod. 2019;227:683–699. DOI:https://doi.org/10.1016/j.jclepro.2019.0 4.120.
- Mieras E. An LCA-based framework to validate sustainable business models. LCM; 2015. Available:www.presustainability.com/download/Eric-Mieras-LCA-framework-for-new-business-

LCA-framework-for-new-businessmodels.pdf Accessed 2020-04-04.

Passer A, Lasvaux S, Allacker K, De 73. Lathauwer D, Spirinckx C, Wittstock B, Kellenberger D, Gschösser F, Wall J, Wallbaum H. Environmental product declarations entering the building sector: critical reflections based on 5 to 10 years different european experience in countries'. International Journal of Life Cvcle Assessment. 2015;20(9):1199-1212.

DOI:https://doi.org/10.1007/s11367-015-0926-3.

- 74. Quantis. Measuring business performance in the circular economy; 2017. Available:https://quantisintl.com/measuring-circular-economy/ [Last accessed Sept 3, 2019].
- 75. Scheepens AE, Vogtländer JG, Brezet JC. Two life cycle assessment (lca) based methods to analyse and design complex (regional) circular economy systems. case: making water tourism more sustainable. J Clean Prod. 2016;114:257–268. DOI:https://doi.org/10.1016/j.jclepro.2015.0 5.075
- 76. Towards green growth. Paris: OECD Publishing; 2011.
- 77. Bosco S, et al. Soil organic matter accounting in the carbon footprint analysis

of the wine chain. Int J Life Cycle Assess. 2013;18.

- Fraccascia L, Giannoccaro I, Albino V. Business models for industrial symbiosis: a taxonomy focused on the form of governance. Resour Conserv Recycl. 2019;146.
- 79. Haupt M, Zschokke M. How can LCA support the circular economy?—63rd discussion forum on life cycle assessment, Zurich, Switzerland, November 30, 2016. Int J Life Cycle Assess. 2017; 22.
- 80. Joyce A, Paquin RL. The triple layered business model canvas: a tool to design more sustainable business models. J Clean Prod. 2016;135.
- 81. Kjaer LL, et al. Challenges when evaluating product/service-systems through life cycle assessment. J Clean Prod. 2016;120.
- 82. Burke MJ, Stephens JC. Energy democracy: goals and policy instruments for sociotechnical transitions. Energy Res Soc Sci. 2017;33.
- Caldera HTS, Desha C, Dawes L. Evaluating the enablers and barriers for successful implementation of sustainable business practice in 'lean' SMEs. J Clean Prod. 2019;218.
- 84. Chandio AA, et al. Short and long-run impacts of climate change on agriculture: an empirical evidence from China. Int J Clim Change Strateg Manage. 2020;12.
- 85. Chege SM, Wang D. The influence of technology innovation on SME performance through environmental sustainability practices in Kenya. Technol Soc. 2020;60.
- 86. Lüdeke-Freund F, et al. The sustainable business model pattern taxonomy—45 patterns to support sustainability-oriented business model innovation. Sustain Prod Consum. 2018;15.

87. Lüdeke-Freund F, Dembek K. Sustainable business model research and practice: emerging field or passing fancy? J Clean Prod. 2017;168.

- Lyhne I, Byriel IP. Environmental assessment of R&D programmes: the case of the Danish ForskEL Programme. JEAPM. 2013;15.
- Merli R, Preziosi M, Acampora A. How do scholars approach the circular economy? A Systematic Literature Review. J Clean Prod. 2018;178.
- 90. Morioka SN, Bolis I, Carvalho MM. From an ideal dream towards reality analysis:

proposing sustainable value exchange matrix (SVEM) from systematic literature review on sustainable business models and face validation. J Clean Prod. 2018;178.

- 91. Olsen SI. Bæredygtigt Bundlinje: Metoder Og Værktøjer | Gate 21. Gate. 2019;21.
- 92. Singh J, Cooper T. Towards a sustainable business model for plastic shopping bag management in Sweden. Procedia CIRP. 2017;61.
- 93. Sonnemann G, et al. Chapter 18: life cycle thinking and the use of LCA in policies around the world, in Hauschild, RK. Rosenbaum and S.I. Olsen, Editors. 2017, Life Cycle Assessment: Theory and Practice.
- Täuscher K, Abdelkafi N. Scalability and robustness of business models for sustainability: a simulation experiment. J Clean Prod. 2018;170.
- 95. Testa F, et al. Perceptions on LCA implementation: evidence from a survey on adopters and nonadopters in Italy. Int J Life Cycle Assess. 2016;21.
- 96. Alliance for the Chesapeake Bay. New York green business program; 2017. Available:https://businesses.alliancefortheb

ay.org/partner/ny-dec-ny-green-business/ Accessed 5 Dec 2020.

- 97. Bergquist AK. Business and sustainability: new business history perspectives. Harvard Business School; 2017. Available:https://www.hbs.edu/ris/Publicati on%20Files/18-034_39d7d71d-9e84-4e8b-97c0-0e626f75293c.pdf. Accessed 18 Apr 2021.
- Desilver D. Perceptions and realities of recycling vary widely from place to place; 2016.
 Available:https://www.pewresearch.org/fact

-tank/2016/10/07/perceptions-and-realitiesof-recycling-vary-widely-from-place-toplace/

Accessed 1 Dec 2020.

 99. LexisNexis. Company dossier overview; 2019. Available:http://lexisnexis.custhelp.com/ap p/answers/answer_view/a_id/1084401/~/c ompany-dossier-

overview#Dossier%20Currentness Accessed 5 Dec 2020.

100. Michaud G, Jolley GJ. Using proprietary databases to overcome data suppression in industry cluster analysis. J Ext. 2017;55(4).

- Restoring Prosperity. Transforming Ohio's communities for the next economy; 2010.
 Available:https://www.brookings.edu/resea rch/restoring-prosperity-transformingohios-communities-for-the-next-economy/ Accessed 5 Dec 2020.
- 102. U.S. Small Business Administration. Green business; 2021. Available:https://www.sba.gov/category/typ es-businesses/green-business Accessed 17 Apr 2021.
- 103. Environmental policy toolkit for SME greening in EU Eastern Partnership Countries. OECD Green Growth Stud; 2018.
- 104. Aboelmaged M. The drivers of sustainable manufacturing practices in Egyptian SMEs and their impact on competitive capabilities: a PLS-SEM model. J Clean Prod. 2018;175.
- 105. Aboelmaged M, Hashem G. Absorptive capacity and green innovation adoption in SMEs: the mediating effects of sustainable organisational capabilities. J Clean Prod. 2019;220.
- 106. Acs ZJ, et al. Entrepreneurship, institutional economics, and economic growth: an ecosystem perspective. Small Bus Econ. 2018;51.
- 107. Alagidede P, Adu G, Frimpong PB. The effect of climate change on economic growth: evidence from Sub-Saharan Africa. Environ Econ Policy Stud. 2016;18.
- 108. Danish S, Ulucak R. How do environmental technologies affect green growth? Evidence from BRICS economies. Sci Total Environ. 2020;712.
- 109. Johnstone L. A systematic analysis of environmental management systems in SMEs: possible research directions from a management accounting and control stance. J Clean Prod. 2020; 244.
- 110. Johnstone L, Hallberg P. ISO 14001 adoption and environmental performance in small to medium sized enterprises. J Environ Manage. 2020;266.
- 111. Pizzi S, Corbo L, Caputo A. Fintech and SMEs sustainable business models: reflections and considerations for a circular economy. J Clean Prod. 2021;281.
- 112. Rao C, Yan B. Study on the interactive influence between economic growth and environmental pollution. Environ Sci Pollut Res. 2020;27.
- 113. Baah C, et al. Examining the correlations between stakeholder pressures, green

production practices, firm reputation, environmental and financial performance: Evidence from manufacturing SMEs. Sustain Prod Consum. 2021;27.

- 114. Balsalobre-Lorente D, et al. How economic growth, renewable electricity and natural resources contribute to CO2 emissions? Energy Policy. 2018;113.
- 115. Bartolacci F, Caputo A, Soverchia M. Sustainability and financial performance of small and medium sized enterprises:
 a bibliometric and systematic

literature review. Bus Strateg Environ. 2020:29.

- 116. Benzidia S, Makaoui N. Improving SMEs performance through supply chain flexibility and market agility: IT orchestration perspective. Supply Chain Forum. 2020:21.
- 117. Broccardo L, Zicari A. Sustainability as a driver for value creation: a business model analysis of small and medium entreprises in the Italian wine sector. J Clean Prod. 2020:259.

© 2023 Sirohi; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history: The peer review history for this paper can be accessed here: https://www.sdiarticle5.com/review-history/99247