

Business Model and Sustainability

Shivika Rana^{1*}, Tanvi Rana², Bhoomika Mahato³, Rajeev Gupta⁴

^{1,2,3,4}Mittal School of Business, Jalandhar, India

Abstract: Sustainability in businesses has been the topic of discussion as consumers have become more conscious of how consumption directly affects the world in which we live. A search is conducted in this paper by using EBSCO Host database.

Keywords: Business, Sustainability, Business models.

1. Introduction

Sustainability aims to address the needs and desires of the present without losing the opportunity to meet the needs of the future (Birkin, et. al., 2009). It does not imitate a certain quantifiable, but a mechanism in which ecological, economic and social values are well-adjusted in incessant action (Boons, Frank, and Florian Lüdeke-Freund, 2013). Sustainability aspects (environmental, social and financial) are incorporated into company processes, business processes for the production and development of ideas and commercialization, this mechanism is known as sustainable innovation (Aagaard, Annabeth, 2019). Sustainability is defined by focusing on increased operational efficiency or more environmentally benign products and processes. It includes “the services their products provide, in lieu of the products themselves” (Sandra Rothenberg, 2007). Sustainability envisages a sustainable integration of economic performance, social inclusion and environmental sustainability for the good of current and future generations. It is of rising concern to governments, investors, and the business community and it proposes a holistic integration of economic performance, social justice and sustainable development for the benefit of current and future generations. (Marina P.P. Pieroni et. al., 2019). It may refer to strategies that address social, conservational & economic apprehensions in an integrated way, so as to change organizations in a technique that contributes to sustainable economic and social growth within the context of the sustainability ecosystem. (Stefan Schaltegger, 2016).

Sustainability is a core concern for companies in the twenty-first century, as they continually understand that their policies and activities have social and/or environmental implications (Wendy Stubbs and Chris Cocklin, 2007). Business Model is referred to as architecture, design, pattern, strategy, process, assumption, and declaration of purpose. The business model holds promise as a unifying unit of study that can promote the advancement of the theory of entrepreneurship (Michael Morris, 2005). It is influenced by the resources of the firm, product line and the stakeholders of the firm along with the

inside and outside environment of the company (Lozano, Rodrigo, 2018). Business models promote the sustainable use of goods and services or enable the broader implementation of emerging environmentally friendly technologies (Karan Girotra et. al., 2013). It constitutes the core and driver of a strategy as well as essential to decoding, understanding and successfully communicating the plan both within the enterprise and through the business environment. Sustainability means Striking to combine continuity and coherence with versatility and shift (Elias G. Carayannis et. al., 2015). Business models allow us to identify businesses in taxonomy or typology. It helps in classifying devices and offer useful ways to broaden the understanding of Company phenomena and the creation of ideal forms (Charles Baden-Fuller, and Mary S. Morgan, 2010). Also, it led to improved organizational economic, environmental and social efficiency. Sustainability is a requisite business potential, whether linked to small incremental steps or to radical, disruptive developments (Steve Evans et. al, 2017). A sustainable business model is defined as one that provides a competitive advantage, Increased consumer satisfaction and leads to sustainability creation of the business and of society (Rantala, Tero, et. al., 2018). Sustainability cannot accept classical business models, but business models need to be transformed to integrate social and environmental aspects. (de Man, Johannes Cornelis, and Jan Ola Strandhagen, 2017). This study is going to present ample evidence that the concept of “Business Model” and “Sustainability” is still young and is just making inroads into some of the leading academic journals.

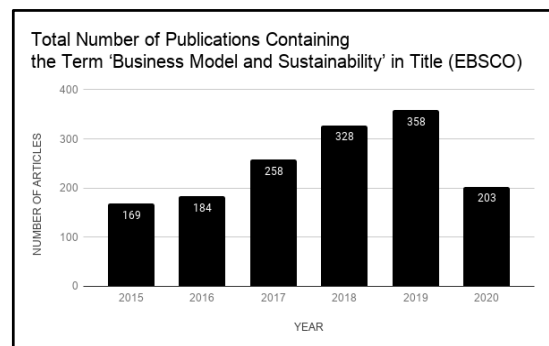


Fig. 1. Emergence of concept of Business Model and Sustainability

A search is conducted in this paper by using EBSCO Host database and it has been found that from January 2015 to October 2020, an altogether of 1500 articles were published

*Corresponding author: shivikarana21@gmail.com

containing the terms “Business model” and “Sustainability” in the title. The break up is as follows: 169 articles published in 2015, 185 articles published in 2016, 258 articles published in 2017, 328 articles published in 2018, 358 articles published in 2019 and 203 articles published upto October in the year 2020 had terms “Business model” and “Sustainability” in title (Figure 1).

2. Literature Review

Four of the most popular market sustainability appraisal predictor frameworks are analyzed. First, it introduces the idea of sustainable production as described by the University of Massachusetts Lowell Center for Sustainable Production. Neither structure for assessing sustainable manufacturing systems exists as a whole, regardless of the large number of sustainability metrics being established for businesses (Vesela Veleva and Michael Ellenbecker, 2000).

Sustainability is development which fulfils the requirements of present without any compromise of ability of future needs of the environment. Sustainability refers to maintaining, renewing and restoring specific needs and also include the ethical dimension of fairness of tradeoff between economic pressures and future requirements of the environment (Adrian Wilkinson *et. al.*, 2001). Sustainability to be a combination of environmental, social and economic success as the most elusive aspect of the three-fold strategy. Sustainability should be avoided in order to avoid degradation and inefficiency effects of premature death for businesses (Deborah Doane & Alex MacGillivray, 2001).

(Michael Morris, Minet Schindehutte, Jeffrey Allen, 2005) The literature is reviewed and a number of these key concerns are observed. Theoretical underpinnings of an organization’s business model are explored. The goal of this study is to examine established viewpoints and suggest an integrative structure for defining the business model of an entrepreneur.

The challenges of sustainability faced by food retail industries in Britain and the United States are contrasted. In defining and reacting to sustainability, British and US industries are in different stages of maturity. This article explored what retailers do, how retailers are influenced by accountability structures and business accountability, and suggests that retailers can achieve major business advantages by approaches for better accountability (Alastair Iles, 2005).

Eeco-conscious and green policies can potentially lead to competitive advantages and better financial results (P. Engardio *et.al.*, 2007).

Wendy Stubbs and Chris Cocklin (2007) explained the process which is used for helping Business students to understand and reconcile various sustainability perspectives. The focus of this sustainability framework is to change the thinking of students from various viewpoints, by interacting with sustainability, rather than introducing a single version of sustainability to them. Description of the sustainability principles applicable to best practices is presented and explained how they are used to teach sustainability to business students. (F. Birkin, A. Cashman, S.C.L. Koh, Z. Liu, 2007) New business model for sustainable development is urgently

required in China. Chinese Government is calling for a review and a revision of the current business models in China must incorporate at least the eco-efficiency aspects of sustainability. This study explored the necessity to build new sustainable business models in China and uses numerous purposes to explore the certainties of sustainable development, environmental knowledge and efficiency, community accountability, efficiency barriers and drivers in a sample of Chinese companies and other issues related to sustainability. (John R. Bryson and Rachel Lombardi, 2009) investigated the practices of two UK-based property development companies that have incorporated sustainability into their business strategies as a source of competitive advantage in regard to the emerging sustainability agenda of the public sector. These businesses have introduced innovative routines and business practices that have given them uniqueness in the marketplace. This integration involves the creation of a structure for balancing sustainability and associated value systems against more conventional concerns and optimizing profitability. In this paper, authors have described a paradigm and discussed the ways where these companies have established a discursive benefit and value creation that is used to counteract the contradictions that arise in a business model formulated through balancing a dual bottom line. A business model that measures its decision’s implications and impacts and recognizes social and environmental factors as a financial vision is an organization dedicated to the future and to sustainability (Aligleri, 2009).

Rising public interest and discussion is gaining in sustainability. Maurice Berns, Andrew Townsend *et. al* (2009) explained that the business impacts of sustainability deserve to be studied and examined more closely, of a different nature from the most popular "green" emphasis.

A proposed model by (Florian Lüdeke-Freund, 2010) has been established involving sustainability initiatives, eco-innovation, the involvement of business models and important points on creating value in terms of private and public benefits. The article dealt with business model creativity and the development of private and public benefits. Sustainability is best embraced for economic success and competitive advantage, research into the effective strategies for implementing eco-sustainable corporate initiatives is still in its infancy into business marketing (Arun Sharma, 2010). Sustainability is the premise of incorporating the aspects relating to sustainability, which presents an evolving challenge to businesses, and stresses that management practises and sustainable goods open up new opportunities and outlets of availability, bringing out the need for business models and growth outlets, which change the cost nature of the business, so that sustainability can pervade the company's operations from the corporate strategy (Peter Lacy *et. al.*, 2010).

Petrini, Maira *et. al.* (2010) propose a conceptual model to allow the integration of sustainable development in business practice and to learn from Latin American companies - in Brazil in particular - that excel in sustainable practices. The key outcome of our research is the identification of a range of impact variables that are interrelated by three broader

categories - company view, organizational structure and process - so that the incorporation of sustainability into business practices can be better understood.

(Charles Baden-Fuller and Mary S. Morgan, 2010) proposed answers to the questions 'Why is the idea of business models useful?' And 'Who uses it, for what, and how?' Authors have explained their ideas with reference to experience in the real world and academic research, especially in this Long-Term Planning Special Issue on Business Models. The presence of a business plan for sustainability is generally considered to be an ad hoc measure, an add-on to a core business, or simply a circumstance. This paper by (Stefan Schaltegger *et al.*, 2011) argues that promoting the systematic, ongoing development of sustainability business cases may involve creativity in the business model. A structure for business model innovation is suggested as a means of strategically generating business cases on a constant schedule as an intrinsic, profoundly integrated part of business operations. According to a survey carried out by Sheila Bonini (2011), several businesses consciously incorporate the ideals of sustainability. They do so by following objectives that go way beyond past reputation management issues. Sustainability is not a matter of being humanistic and well-meaning, it is a question of managerial accountability and performance. The bridges between environmentally, humanistic and strategic business visions are critical for sustainability (2011).

The emphasis of this paper by Jason MacVaugh and Mike Norton (2011) is on the author's experiences in designing and implementing sustainability training in their higher education programs. To overcome the problems inherent in the work, authors apply the concepts of active learning, using problem-based learning extensively, in the classroom and participate in an individual growth process.

A typology and conceptual structure for sustainability initiatives are presented (by Karin Tollin & Jesper Vej, 2012) at enterprise level to the practical marketing level. Market survival in various fields of knowledge and literature is enacted (e.g. supply chain management, corporate branding, value creation, product innovation and business model innovation). This paper (by Samuel W. Short *et al.*, 2012) examined how companies can achieve stable social, environmental & economic meaning by integrating sustainability more profoundly into the core of their business. For this reason, a more systematic approach to sustainability in the innovation business model is required. Establishing a strategic mapping approach is suggested to help businesses create value proposals that are better suited to sustainability. In Sustainability, priority can be taken from the outset and implemented as part of a company mission statement; it may emerge as a desired component of other priorities and initiatives. It can be regarded as a new source of rivalry, or as the product of an unexpected crisis directed at the company as an environmental violator or social exploiter (Terry Porter and Robbin Derry, 2012).

This paper explained the activities of a Norwegian office chair manufacturer for business sustainability in the demand and supply chain networks. Business survival should not only concern itself with one thing but that there should be a multitude

of simultaneous initiatives (i.e. actors, resources and activities). The focus of the case study is confined to one particular business sustainability initiative and its networks in terms of production and consumption chains. It offers a sustainable business model, which provides additional study opportunities (Nils M. Høgevoid, Göran Svensson, 2012).

(Frank Boons, Florian Ludeke-Freund, 2013) have not looked so much at the goods or services itself or in terms of their physical aspects and their effect on sustainability. Instead, they focused on how business models and sustainable technology link together and what can be learned from them. Business model definition is useful in putting together perspectives at the various levels of research that they have defined in the context of sustainable innovation. The goal was to advance sustainable innovation research through the implementation of a business model perspective. The organizations with a strong commitment from senior management to innovation can achieve sustainability. Technology and business skills are focused on an understanding of the connection between such a strategic orientation and a generic growth strategy. Sustainability focuses on sustainable growth that addresses present needs without impacting future generations' ability to fulfil their needs (Richard Li-Hua & Lucy Lu, 2013).

The goal of this paper by (Nelson A. Barber, 2013) is to show how, despite institutional obstacles, sustainable development education can be accomplished through creative and cooperative ties with internal and external stakeholders in business schools. This study addressed the growth and development challenges implementing and evaluating the multiple driving factors behind these obstacles in sustainable development education. The paper explained in depth how a business school has overcome these challenges in certain ways and gives generalizable insights into how other schools and universities can participate in the execution of similar sustainable development programmes. This article presented the LCA approach as a tool for management decision making and demonstrates its potential for generating value in several examples. One such important instrument to measure the effects and environmental aspects of a product or service to a serious one is the environmental life cycle assessment (LCA) (Wendy Stubbs, 2013). Three components of the sustainability concept are discussed in this article: resilience, upholding core values or goals, and external needs accountability (Justin Bateh *et al.*, 2013).

(Derk Loorbach and Katinka Wijsman, 2013) By playing an active transformational role, businesses will at the same time help change their competition and transform their own businesses. Through this, they will consciously form transitions to sustainability. The shared economic lens is perfect for exploring and contributing to sustainability. Whilst the shared economy can contribute to sustainable development and there is plenty of space for practical issues to drive sustainability, there are no empirical studies of the shared economy. The literature and business practice analysis (by N.M.P. Bocken *et al.*, 2014) has identified a broad range of examples of methods and strategies that can contribute to sustainability innovation in

the business model. The purpose of this research is to create a common language that can be used to facilitate the implementation of sustainable business models in analysis and innovation. Each individual or group recognizes sustainability through its own value filter so that communications that promote sustainability must be placed as per the audience's receptivity (value driver). Theoretically and empirically, human and social principles across the globe are measured, and sustainability ideas can be incorporated in every business programme for tertiary education (Elizabeth Sidiropoulos, 2014). Authors have returned closer to their origins and claim that sustainability takes time into consideration. Sustainability allows businesses to enter into temporary trade arrangements to protect intergenerational assets. By demonstrating that the idea of "time" discriminates from sustainability and other related definitions, authors explained the sense of sustainability. They then claim that a short-termism that is survival has been aided by the lack of time from the main strategic management (Pratima Bansal and Mark R. DesJardine, 2014)

Observations and suggestions on an integrated approach between marketing activities and companies, with a view to contributing to existing information gaps is offered. The presented work underlines new, optimistic future marketing communication theories and also provides many opportunities for more study in this area (Suraksha Gupta *et al.*, 2014).

The paper opens with the obvious context of vulnerability reflected in a variety of discourses on contemporary management and non-management. The authors trace the deterioration of trust between society and the negative attributes of advanced globalisation institutions of administrators of major corporation's perceptions of corruption. The paper articulates a systematic approach to managing the many risks inherent in the unveiling context which are highly societalised (human-focused) approaches (Sir Michael Rake and David Grayson, 2016).

(Johannes Cornelis de Man, Jan Ola Strandhagen, 2017), have implemented a sustainable business model in the environment of Industry 4.0. They have shown the ability of Industry 4.0 for sustainable business models with many scenarios. This culminated in a research agenda on topics to further establish sustainable business models. Future sustainable business scenarios are explored and introduced a research agenda on how Industry 4.0 can be used to create sustainable business models. (Rodrigo Lozano, 2018) a concept and structure for more sustainable business models is proposed, aimed at incorporating organisational approaches, the company environment, stakeholders, improvements and sustainability, this will include a more systematic and comprehensive approach to discourses on sustainable business models. Paavo (Ritala *et al.*, 2018) have examined the variety of sustainable business models embraced by the world's largest organizations in the S&P 500 Index over the span 2005-2014. Empirical and expert committees to create a list of keywords throughout nine sustainable business model mythologies are proposed and to use automated data approach to analyse the nature and purpose of sustainable business operations and practises. (Elizabeth C. Kurucz *et al.*, 2017) the impacts of leadership in enabling and

accelerating the impact of strategic sustainable practises are investigated. This is done by identifying, initially, the main adaptation issues faced by strategic sustainability through a five-level analysis of the Framework for Strategic Sustainable Development (FSSD). They have defined the value of relationship leadership for strategic survival, or the ongoing process of meaningful thought and reflection within the embedded framework of the society.

(Laura Bini *et al.*, 2018) An analytical tool is provided that examines the organization's mission to sustainability by examining its business model (defined here as a summary of the mechanisms by which companies execute their strategic strategies and build value). The degree to which mining companies are engaged in sustainability by undertaking content analysis of their business model filings, is explored. (Tero Rantala *et al.*, 2018) focused on the connection between sustainability and the implementation of different forms of technologies. Empirical analysis focused on how sustainability assessment impacts the acceptance of innumerable forms of technologies. This thesis responds to this research void by providing the explanatory sustainability factors behind the willingness of horse industry operators to embrace technical, service and business model developments. (Henning Breuer *et al.*, 2018) contributed to a common understanding of the basic parameters for modelling sustainable business Centered on a theoretical approach of boundary-range and collective development of a sustainable value business model formation. By summarizing the results from the theory and available resources, the authors have identified four guiding principles (sustainability focus, extended value creation, systematic thinking and stakeholder integration) and four process-related criteria (reframing business model components, context-sensitive modelling, collaborative modelling, impact management and outcomes) for sustainability growth. (Federico Rotondo *et al.*, 2019) focused on the social side of sustainability and seeks to analyze the degree to which the incorporation of social sustainability goals into the business model has a positive effect on the company's financial performance, encourages sustainable innovation and improves the company's ability to survive discontinuities such as the recent financial crisis. They answered the issue of whether and under what circumstances the incorporation of social sustainability into the business model of a company impacts financial results and encourages sustainable innovation. (Antonio Maffei *et al.*, 2019) analyzed the related scientific contribution through the concept of BM (Business Model) and BMI (Business Model Innovation). The result of this analysis is characterization, and when possible a description of the ways digitalization can support manufacturing firms in this adoption of Sustainable Business Models.

The objective of this research paper is to provide comprehensive and up to date literature on the concept of business model and sustainability. This research paper works in direction to bridge the gap that is there in literature on sustainability and business model definitions and its various dimensions.

We are doing secondary research; we are going to review the papers that are on the topic “Business Model” and “Sustainability”. The analysis is going to highlight the fact that, despite a major surge in scholarly literature on business models, the idea is still understudied and at a developing level.

3. Conclusion

This paper presented an overview on business model and sustainability.

References

- [1] Aagaard, Annabeth. "Identifying Sustainable Business Models Through Sustainable Value Creation," in *Sustainable Business Models*, pp. 1-24. Palgrave Macmillan, Cham, 2019.
- [2] Aligleri, L., Aligleri, L. A., & Kruglianskas, I. (2009). Gestão socioambiental: responsabilidade e sustentabilidade do negócio. Atlas.
- [3] Baden-Fuller, Charles, and Mary S. Morgan. "Business models as models." *Long range planning* 43, no. 2-3 (2010): 156-171.
- [4] Barber, N. A., Wilson, F., Venkatachalam, V., Cleaves, S. M., & Garnham, J. (2014). Integrating sustainability into business curricula: University of New Hampshire case study. *International Journal of Sustainability in Higher Education*.
- [5] Bansal, P., & DesJardine, M. R. (2014). Business sustainability: It is about time. *Strategic Organization*, 12(1), 70-78.
- [6] Bateh, J., Heaton, C., Arbogast, G. W., & Broadbent, A. (2013). Defining sustainability in the business setting. *Journal of Sustainability Management (JSM)*, 1(1), 1-4.
- [7] Berns, M., Townend, A., Khayat, Z., Balagopal, B., Reeves, M., Hopkins, M. S., & Kruschwitz, N. (2009). The business of sustainability: what it means to managers now. *MIT Sloan Management Review*, 51(1), 20-26.
- [8] Bini, Laura, Marco Bellucci, and Francesco Giunta. "Integrating sustainability in business model disclosure: Evidence from the UK mining industry." *Journal of cleaner production* 171 (2018): 1161-1170.
- [9] Birkin, F., A. Cashman, S. C. L. Koh, and Z. Liu. "New sustainable business models in China." *Business Strategy and the Environment* 18, no. 1 (2009): 64-77.
- [10] Bocken, Nancy MP, Samuel W. Short, Padmakshi Rana, and Steve Evans. "A literature and practice review to develop sustainable business model archetypes." *Journal of cleaner production* 65 (2014): 42-56.
- [11] Boons, Frank, and Florian Lüdeke-Freund. "Business models for sustainable innovation: state-of-the-art and steps towards a research agenda." *Journal of Cleaner production* 45 (2013): 9-19.
- [12] Bonini, S., & Gorner, S. (2011). The business of sustainability. *McKinsey & Company*.
- [13] Breuer, Henning, Klaus Fichter, Florian Lüdeke-Freund, and Irina Tiemann. "Sustainability-oriented business model development: principles, criteria and tools." *International Journal of Entrepreneurial Venturing* 10, no. 2 (2018): 256-286.
- [14] Bryson, John R., and Rachel Lombardi. "Balancing product and process sustainability against business profitability: Sustainability as a competitive strategy in the property development process." *Business Strategy and the Environment* 18, no. 2 (2009): 97-107.
- [15] Carayannis, Elias G., Stavros Sindakis, and Christian Walter. "Business model innovation as lever of organizational sustainability." *The Journal of Technology Transfer* 40, no. 1 (2015): 85-104.
- [16] de Man, Johannes Cornelis, and Jan Ola Strandhagen. "An Industry 4.0 research agenda for sustainable business models." *Procedia Cirp* 63 (2017): 721-726.
- [17] Doane, D., & MacGillivray, A. (2001). Economic sustainability: The business of staying in business. *New Economics Foundation*, 1-52.
- [18] Engardio, P. (2007, January 29th). Beyond the green corporation. *Business Week*, 50-64.
- [19] Evans, Steve, Doroteya Vladimirova, Maria Holgado, Kirsten Van Fossen, Miying Yang, Elisabete A. Silva, and Claire Y. Barlow. "Business model innovation for sustainability: Towards a unified perspective for creation of sustainable business models." *Business Strategy and the Environment* 26, no. 5 (2017): 597-608.
- [20] Girotra, Karan, and Serguei Netessine. "OM forum—business model innovation for sustainability." *Manufacturing & Service Operations Management* 15, no. 4 (2013): 537-544.
- [21] Gupta, S., Rudd, J., & Lee, N. (2014). Business sustainability through successful integration of marketing and operations. *Industrial Marketing Management*, 43(1), 3-5.
- [22] Høgevoid, N. M., & Svensson, G. (2012). A business sustainability model: A European case study. *Journal of Business & Industrial Marketing*.
- [23] Iles, A. (2007). Seeing sustainability in business operations: US and British food retailer experiments with accountability. *Business Strategy and the Environment*, 16(4), 290-301.
- [24] Kurucz, Elizabeth C., Barry A. Colbert, Florian Lüdeke-Freund, Antony Upward, and Bob Willard. "Relational leadership for strategic sustainability: Practices and capabilities to advance the design and assessment of sustainable business models." *Journal of Cleaner Production* 140 (2017): 189-204.
- [25] Li-Hua, R., & Lu, L. (2013). Technology strategy and sustainability of business. *Journal of Technology Management in China*.
- [26] Lacy, P., Cooper, T., Hayward, R., & Neuberger, L. (2010). A new era of sustainability. *UN Global Compact, Accenture*.
- [27] Lozano, Rodrigo. "Sustainable business models: Providing a more holistic perspective." *Business Strategy and the Environment* 27, no. 8 (2018): 1159-1166.
- [28] Loorbach, D., & Wijsman, K. (2013). Business transition management: exploring a new role for business in sustainability transitions. *Journal of cleaner production*, 45, 20-28.
- [29] Lüdeke-Freund, Florian. "Towards a conceptual framework of 'business models for sustainability'." Knowledge collaboration & learning for sustainable innovation, R. Wever, J. Quist, A. Tukker, J. Woudstra, F. Boons, N. Beute, eds., Delft (2010).
- [30] Maffei, Antonio, Sten Grahn, and Cali Nuur. "Characterization of the impact of digitalization on the adoption of sustainable business models in manufacturing." *Procedia Cirp* 81 (2019): 765-770.
- [31] MacVaugh, J., & Norton, M. (2012). Introducing sustainability into business education contexts using active learning. *International Journal of Sustainability in Higher Education*.
- [32] Morris, Michael, Minet Schindehutte, and Jeffrey Allen. "The entrepreneur's business model: toward a unified perspective." *Journal of business research* 58, no. 6 (2005): 726-735.
- [33] Petrini, M., & Pozzebon, M. (2010). Integrating sustainability into business practices: learning from Brazilian firms. *BAR-Brazilian Administration Review*, 7(4), 362-378.
- [34] Pieroni, Marina PP, Tim C. McAloone, and Daniela CA Pigosso. "Business model innovation for circular economy and sustainability: A review of approaches." *Journal of Cleaner Production* 215 (2019): 198-216.
- [35] Porter, T., & Derry, R. (2012). Sustainability and business in a complex world. *Business and Society Review*, 117(1), 33-53.
- [36] Rantala, Tero, Juhani Ukko, Minna Saunila, and Jouni Havukainen. "The effect of sustainability in the adoption of technological, service, and business model innovations." *Journal of cleaner production* 172 (2018): 46-55.
- [37] Ritala, Paavo, Pontus Huotari, Nancy Bocken, Laura Albareda, and Kaisu Puumalainen. "Sustainable business model adoption among S&P 500 firms: A longitudinal content analysis study." *Journal of Cleaner Production* 170 (2018): 216-226.
- [38] Rothenberg, Sandra. "Sustainability through servicing." *MIT Sloan management review* 48, no. 2 (2007): 83.
- [39] Schaltegger, Stefan, Erik G. Hansen, and Florian Lüdeke-Freund. "Business models for sustainability: Origins, present research, and future avenues." (2016): 3-10.
- [40] Schaltegger, Stefan, Florian Lüdeke-Freund, and Erik G. Hansen. "Business cases for sustainability and the role of business model innovation: developing a conceptual framework." Centre for Sustainability Management (CSM), Leuphana Universität Lüneburg (2011).
- [41] Short, Samuel W., Padmakshi Rana, Nancy MP Bocken, and Steve Evans. "Embedding sustainability in business modelling through multi-stakeholder value innovation." In *IFIP International Conference on Advances in Production Management Systems*, pp. 175-183. Springer, Berlin, Heidelberg, 2012.
- [42] Short, S. W., Rana, P., Bocken, N. M., & Evans, S. (2012, September). Embedding sustainability in business modelling through multi-stakeholder value innovation. In *IFIP International Conference on Advances in Production Management Systems* (pp. 175-183). Springer, Berlin, Heidelberg.

- [43] Stubbs, W. (2013). Addressing the business-sustainability nexus in postgraduate education. *International Journal of Sustainability in Higher Education*.
- [44] Sharma, A., Iyer, G. R., Mehrotra, A., & Krishnan, R. (2010). Sustainability and business-to-business marketing: A framework and implications. *Industrial marketing management*, 39(2), 330-341.
- [45] Sidiropoulos, E. (2014). Education for sustainability in business education programs: a question of value. *Journal of cleaner production*, 85, 472-487.
- [46] Stubbs, Wendy, and Chris Cocklin. "Teaching sustainability to business students: shifting mindsets." *International Journal of Sustainability in Higher Education* (2008).
- [47] Tollin, K., & Vej, J. (2012). Sustainability in business: understanding meanings, triggers and enablers. *Journal of Strategic Marketing*, 20(7), 625-641.
- [48] Veleva, V., & Ellenbecker, M. (2000). A proposal for measuring business sustainability. *Greener Management International*, 31(3), 101-120.
- [49] Werbach, A. (2011). Strategy for sustainability. *Strategic Direction*.
- [50] Wilkinson, A., Hill, M., & Gollan, P. (2001). The sustainability debate. *International Journal of Operations & Production Management*.