

HOW GREEN STRATEGY RESEARCH IS EVOLVING? A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Today, with the rapid increase in industrialization, the production and consumption behaviors of societies have become intense. This situation causes the decrease of limited resources, increase in environmental pollution and deterioration of the environment we live in. Increasing environmental damage during industrialization causes significant ecological deterioration such as climate changes today. However, in the last period, with the support of both international organizations and states, social awareness on this issue has increased. The concept of green economy emerges at this point. Green economy states that economic interests and growth should be evaluated together with the environment. According to this approach, for a sustainable growth, it is necessary for organizations to determine strategies in a way that will cause the least damage to the environment. As environmentally sensitive behaviors began to increase, businesses re-evaluated their internal and external dynamics in this context. Green business is the realization of business activities by considering the environment. With green strategies, companies rearrange their long and short-term business strategies in a way that protects both their own interests and the interests of the natural environment. In this study, a systematic literature review approach is utilized in order to understand the pattern of evolvement of green strategy literature. 1.147 articles were reviewed and were classified into categories about green strategies. Based on the analysis of the studies in the literature, predictions were developed about future studies.

Keywords: Green Economy, Green Business, Green Strategy, Business Strategy

INTRODUCTION

Along with the rapidly increasing industrialization movements after the industrial revolution, urbanization, increased consumption and human population caused the unnecessary and irresponsible use of resources (Aldieri & Vinci, 2018). Specifically, industrial production and consumption are increasing rapidly. In this way, increasing consumption habits have emerged, especially in America, China and European countries. Within the scope of this global consumption habit, the usage time of the products decreases, causing the demand for surplus and increasing the demand diversity (Caprotti & Bailey, 2014). This situation causes deterioration in both sociological structures of societies and natural resources.

The world is exposed to threats such as climate change and global warming due to many reasons such as damage to its natural resources, increase in consumption and environmental pollution. In recent years, these deteriorations in the ecological system have caused some awareness in business and social life (Mealy & Teytelboym, 2020). Green economy emerges as a concept aimed at eliminating this environmental damage. The Green Economy suggests that we need to reverse these habits and reconsider both the way businesses operate and our relationships with the planet (Newton & Cantarello, 2014).

In fact, the relationship between the environment and economic development has been discussed since the early 1970s (Mikhno et al., 2021). Early researchers emphasized that the increasing population and consumption demands of society would increase and natural resources were limited. The report titled "Limits to Growth" published in 1972 underlined that development policies should be determined by taking into account the limitedness of natural resources. It has been stated that if the increase in industrialization, food consumption and environmental pollution continues, the global economic limits will reach the limits within a century (Loiseau et al., 2016). Especially after the 2000s, United Nations Environment and Development Commission has held meetings in various countries and has been carrying out some studies to adjust the economic regulations in a way that will protect the environmental

conditions (Bergius, Benjaminsen, Maganga & Buhaug, 2020). With the recent increase in global studies, the concept of green economy has become more important.

Green economy is a comprehensive concept that includes many areas from social life to economic developments, from environmental factors to consumption habits. This concept evaluates the extent to which economic and social development can be achieved by protecting the environment. In this context, countries need to develop low carbon emulsion technology and make green investments (Aldieri & Vinci, 2018). Although countries and large investors initially thought that these efforts would adversely affect global growth, they agreed that improved environmental conditions would increase the quality of life and ensure sustainable growth in the long run (Caprotti & Bailey, 2014). Sustainability will be made possible with the green economy. Green economy deals with the harmony of economy and environment from a broader perspective. In transactions that adopt this concept, a green business perspective emerges.

Green business is a business style that aims to manage its business functions and its relations with internal and external stakeholders in an environmentally friendly manner. Green business aims to cause minimal or no harm to the environment (Loiseau et al., 2016). In this context, green businesses determine long and short-term green strategies for themselves. On the other hand, green strategy is the establishment of strategies aiming to protect the ecological system by considering the environmental conditions of the long and short-term strategies of the enterprise in the fields of activity such as production, marketing or finance (Lin et al., 2021).

Since the natural environment has become a strategic issue within the field of green business and management, the key question is about how the literature is evolving about businesses' green strategies. This study will deploy a systematic literature review approach to evaluate academic progress about green strategies. The main aim is to document the overall characteristics of related articles, and propose a research agenda for future studies. In line with this aim, the paper is organized as follows. First, we discuss the conceptual framework; with a systematic literature review we present findings. Last, we discussed our findings.

CONCEPTUAL FRAMEWORK ABOUT GREEN BUSINESS ISSUES

Green Economy, Green Business, Green Strategy

There are some differences between green economics and mainstream economic theories. Mainstream economic theories determine human happiness and well-being with material criteria. Unlike the mainstream economic theories, which see the increase in income level as proportional to the welfare of the society, this is enough change for green economists (Newton & Cantarello, 2014). The green economy considers people as social beings. With this point of view, it is to advocate that individuals also increase their sensitivity to the environment (Mealy & Teytelboym, 2020). The authors states that societies do not only want to buy the cheapest, but also make choices in a way that will cause the least harm to nature. The green economy is an economy that reduces environmental pollution and emissions, prevents damage to the ecosystem, and increases employment and growth in human welfare with social investments (Aldieri & Vinci, 2018).

At the Environment and Development Ministerial Conference held in Seoul in 2005, the importance of green economy was declared and it was emphasized that the green economy perspective should be accepted for sustainable development (Lin et al., 2021). Afterwards, the adoption of green growth as a strategy for sustainable development was accepted by international committees. There are 5 principles that form the basis of the green economy (Bergius et al., 2020). The first of these, the principle of welfare, focuses on health, education and human development in order to increase social welfare. This principle, which takes human at its center, does not measure welfare only with income level, but also speaks of a sustainable welfare understanding. Secondly, the principle of efficiency and competence is mentioned. This principle advocates a production model that conserves resources, that are circular, diversified and produce low carbon emissions. It states that these values should be adhered to in the production and consumption processes (Caprotti & Bailey, 2014). The principle of justice states that values such as social justice, human rights and equality should be taken into account. In accordance, production and consumption processes should be realized by considering the interests of all people and even future

generations. Another, the planetary boundaries principle, states that the biodiversity of the planet must be preserved. It emphasizes that the environment we live in has a limit and that we should produce in a way that will cause the least damage to it. Finally, the principle of good management states that the principle of science and accountability should be put at the center (Mealy & Teytelboym, 2020).

In order to completely explain the green economy, it is necessary to discuss about sustainable development. The concept of sustainable development was first mentioned in the report "World Conservation Strategy" prepared by the International Union for Conservation of Nature in 1980. The concept of sustainable development is defined as the protection of living resources by centered on the ecological perspective. Conservation of ecological diversity and processes is one of its main objectives (Caprotti & Bailey, 2014).

Sustainable development argues that the present needs of society should be met in a way that does not prevent future generations from meeting their own needs (Mikhno et al., 2021). While sustainable development aims to increase the quality of growth, it aims to protect and develop resources. Within the scope of sustainable development, it works to reduce the amount of resources needed per service or product or unit, the wastes produced and the emissions (Purwandani & Michaud, 2021).

In recent years, businesses have had to reorganize their processes due to the fact that sustainable development has gained significant value both on an international scale and in the social field. A number of legal obligations, the public's interest in environmental events and the sensitivity of customers to the environment cause businesses to re-evaluate their relations with the environment. Today, businesses bear some responsibilities towards the environment and society (Sarkar et al., 2021). For this reason, businesses adopt a new management approach, taking into account the continuity and social sensitivity. The green management approach has also started to be widely adopted in companies for this purpose.

Green management adopts the principles of environmental sustainability and regulates the activities of the enterprise in a way that will protect the natural balance in a way that will cause the least damage to the environment (Sarkar et al., 2021). Green management puts the ecological environment on the basis of decision-making processes. It is a modern understanding that R&D activities are carried out in an environment-oriented manner. In this context, it aims to minimize the damage they cause to the environment in production processes, product design, packaging and logistics processes. In terms of green business, the company does not only have its own internal processes; at the same time, it chooses its suppliers and subcontractors according to the adoption of similar truths. Green management is an approach that encompasses the entirety of a company's internal and external relations (Oncioiu et al., 2019). Green business has a perspective that covers all functions of a business. Table 1 shows the related concepts of the green business approach according to the functions of the business.

Table 1. Green Business Function

Green Management	Green management is the environmental-friendly planning, organization, implementation, supervision and evaluation of all business activities (Mealy & Teytelboym, 2020).
Green Production	Green production includes production processes that do not cause environmental pollution, in which resources that do not harm the environment are used in the most efficient way. A very little or zero waste target is adopted in green production. At the same time, recycling and green product designs are used in order to prevent environmental pollution (Kaswan et al., 2019).
Green Marketing	It is the adoption of practices that aim to protect the environment in marketing processes such as pricing, promotion or advertising (Gelderman et al., 2021). Green marketing covers all nature and environmentally friendly marketing activities while meeting consumer needs and desires. Green marketing includes a number of activities that encourage the society to use products that do not harm the environment, aim to minimize environmental pollution in packaging processes, and promote the recycling of products (Papadas et al., 2019).
Green Finance and Accounting	The green finance model covers all financial instruments used for environmental policies and products. Green finance brings a new perspective to the traditional economy, bringing sustainable and inclusive methods and environmental factors to the fore (Mohd & Kaushal, 2018). Green Finance states that green investments should be prioritized. Green accounting is expressed as the classification, recording, reporting

	and evaluation of environmental activities by specifying their material values (Akomea-Frimpong et al, 2021).
Green Human Resources	Green human resources aims to adopt the company's green strategies by the personnel and to select environmentally sensitive personnel. Green human resources train their staff on green strategies and raise awareness. Employees of companies that accept the green management approach should fully embrace this mission of the company and be able to represent the company against internal and external stakeholders. The selection and training of these personnel is the responsibility of human resources (Úbeda-García et al., 2022)
Green R&D	Green R&D includes innovative research and studies aimed at giving the least harm to the environment while carrying out the activities of the company. With green R&D, continuous improvement can be made in the service and production processes within the company, more efficient use of resources is ensured, new environmentally friendly services and products are developed, and high efficiency can be achieved from business processes (Chen, Wang & Zhou, 2019).

The green business approach also brings some advantages to companies. While this understanding enables companies to meet certain legal obligations, it also shows that they are sensitive to society and the environment (Purwandani & Michaud, 2021). Namely, with the green management approach, there will be an increase in the sales profitability of the enterprises and a decrease in the production costs. While companies' implementation of renewable energy or savings policies with an environmentalist approach will reduce their costs, there will be an increase in sales profitability with the increase in social awareness (Oncioiu et al., 2019).

In recent years, positive changes have occurred in the attitude of the society towards companies and products that do not harm the environment, together with its support in the square. Businesses that are sensitive to the environment stand out among their competitors and are appreciated by customers through the environmentally friendly symbols and awards they receive. Adopting environmentally friendly strategies by environmentally friendly companies and then introducing them to customers positively affects the brand's recognition and image (Singh et al., 2022). For this reason, environmentally sensitive businesses have started to adopt green business strategies in order to provide competitive advantage and to satisfy environmentally friendly customers with a social responsibility understanding.

Green strategy is a new term in the literature and there are other related concepts such as corporate environmentalism, environmental strategy, eco-enterprise strategy, or corporate sustainability. Simms (1992) states that green business practices should base on sound science and realistic claims, since it is a very new and complex area, and requires expertise for an organization to understand the full implications. Taylor (1992) was one of the first authors to identify the importance of green strategy. Based on interviews with senior management at 16 companies worldwide which are actively engaged in environmental issues, the article discusses the concept of green management, the relationships between the environment and corporate strategy, and how green management approaches can be implemented. This discussion put forth the environmental concern as an integral part of company strategy. The importance of green strategy as basis of competitive advantage is further discussed in other pioneering studies. Porter and van der Linde (1995) explained the fundamentals of greening as a competitive initiative; Hart (1995) as well stated competitive advantage to arise from integrating environmentalism with organizational strategy. Parker (2000) identifies green strategies as creation of new business and market opportunities, improving an organization's competitive edge. The author states that through green strategies the organization achieves cost efficiencies in terms of waste reduction, energy conservation, raw materials reprocessing and reuse, by which organizations gain significant financial returns. According to Olson (2008), for any kind of organization, either public or private, government or commercial, a green strategy is one that complements the business operations and overall business strategies that are already well understood and often well-articulated by the enterprise; moreover, green strategy is the one which has a positive environmental impact.

Cronin et al (2011) classified green strategies in the literature in three groups, as "green innovation", "greening the organization" and "green alliances". According to the authors, the first group of strategies, development of new or innovative green products is the commonly utilized ones. The second group of strategies focuses on environmental aspects inside the company; the authors identified "green champions"

who are policy entrepreneurs, green processes, and supply chain management as the categories of greening processes. Beyond these strategies, the final group is about green alliances.

Literature Review on “Green Strategy”

In this study, a systematic review approach is used to examine progress in the literature about green strategy. The authors followed Tranfield et al.’s (2003) three-phase process for systematic reviews that are planning, conducting, and reporting phases. Authors evaluated the topic together during the planning phase and based upon a literature review selected review criteria. In the second stage, the authors decided to select articles only and eliminate books, book chapters, and conference proceedings for the review. The articles published across the Scopus database are included in the review. The search for articles was based on concepts determined during the planning phase, including ‘green strategy’ and the synonymous concepts of ‘environmental strategy’, ‘corporate environmentalism’ and ‘corporate sustainability’. The list for selected keywords generated 4,629 articles, which was further limited to 1,653 articles that were published in Business and Management journals. All of the articles were reviewed by the authors for their relevance to the research aim and 506 of them were removed after discussion among the authors. Elimination of the articles generated a final list of 1,147 relevant articles. Reading through the articles, the authors conducted thematic analysis. In the final phase of reporting, based on descriptive information the data was analyzed.

The articles within the sample consisted of articles published within last two decades, the two initial articles were published in 1992. No articles about the topic were published in the following 5 years; but since 1997 there is a continuous interest in the concept, and especially in the recent years the number of articles published on green strategy consists of more articles in comparison to the past years (160 articles published in 2020, 154 articles were published in 2021 and 198 articles were published in the 9 months of 2022). The articles were published in many journals, most of which was published in ‘Business Strategy and the Environment’ (n=103; 9,98%), ‘International Journal of Supply Chain Management’ (n=68; 5,92%) and ‘Benchmarking’ (n=41; 3,67%).

Table 2. Classification of Articles in Terms of Their Topic

Green Strategies	Categories	# of Articles	
Innovation	New Product	24	
	Innovative Processes	83	
Greening organization	Champions	Top Management Teams	25
	Green Processes	Management	282
		Marketing	60
		HRM	210
Supply Chain		453	
Green Alliances	Alliances	10	

Conducting the review, we classified the articles based on Cronin et al.’s (2011) definitions of green strategies. As shown in Table-2, most of the reviewed articles are based on “greening organization” strategy, of which “green supply chain management” accounts for most of the papers (39,5%). Green processes also attracted the attention of the authors of the articles within the sample. This category is divided into three as “green management”, “green marketing” and “green human resources management” (green HRM). Among these categories, green management accounts for 24,5% and green HRM accounts for 18,3% of all the articles; the least researched topic of this category is green marketing accounting for 5,2% of the articles. Within this group of green strategies, we classified the articles regarding the role of Top Management Teams (TMT) for green strategies as Champions, and this category consists of 2,2% of all articles. The next group of green strategies is “green innovation” and under this topic we classified the articles as “new product” (2,1%) and “innovative processes” (7,2%). The last group of green strategies is called alliances which accounts for the least number of articles within the reviewed sample.

Analyzing the articles about green supply chain management in detail, we noticed that in the recent years the authors focused on new topics other than supply chain efficiency, supplier selection or evaluation. The new topics include the link between other concepts such as supply chain and customer relations, integration of technology in supply chains (i.e. IT-enabled performance monitoring; impact of big-data

analytics or artificial intelligence), role of institutional environments. In a similar way, the topics of the articles about green management changed its focus towards integration of technology in recent years. The topics of the articles about green management is various, including value-chain practices, logistics, procurement, certification, IT/IS. But in recent years the articles focused on other managerial processes such as green oriented crowdfunding campaigns, green in-store operations, green technology transfer, green factory, cross-functional green management, green creativity. Green HRM is discussed in the articles within the sample since more than a decade. The initial articles focused on green HRM practices and its effect on various employee outcomes. Much recent articles investigated green HRM in relation to other green issues, in particular with green supply chain management, top management teams, green marketing. The articles about green marketing processes within the sample have a much focus on consumer behavior; rather than greening the marketing-mix. We also noticed that research on top management teams in relation to green strategies is increased in recent years and most of this recent research focused on the relation of TMT with innovation.

The second group of green strategies is about innovation and we divided this strategy into two categories as new product and innovative processes. Regarding both of the categories, the authors interest shifted from conceptual to the empirical analyses in the recent years. The final group of green strategies is related to alliance formation and this strategy is the one that is researched least among the reviewed articles. The initial articles about this strategy focused on alliances with environmental groups and NGOs. However, the most recent articles are about collaborations with different stakeholders like customer groups or global collaborations. Some research about this stream also researched the collaborations for the purpose of innovation.

CONCLUSION AND DISCUSSIONS

Green management emerged in 1990s and receiving much attention in both society and business world, it became a popular concept since millennium. How to manage green issues and develop green strategies became strategically dominant issue for each company. With continuous growth in environmental issues, academia also has an increasing interest in this problem and there exists a well accumulated knowledge about the topic. Within this frame, this study aimed to systematically investigate the evolvement of green strategy literature. Based on a systematic literature review, we reviewed 1.147 articles from the Scopus database. Classifying the green strategies into three groups and 8 categories, we found out the most researched categories as green supply chain management, green management and green human resources management. All of these categories are classified under “greening organization” group. On the other hand, less research were conducted about “green innovation” and “green alliances”. In accordance, these areas could be subject to further studies (Zehir and Ozgul 2020).

The analysis revealed important future study areas. Initially, as in other management research, literature about green strategy is evolving to include developing technologies such as big data, artificial intelligence. Therefore, we suggest future studies to analyze the effect of these concepts during strategy processes. Moreover, strategic alliances also provide a fruitful research area. In the future studies, the authors could focus on strategic partnerships in network relations. Finally, the relation of green strategy concepts also provides another future agenda. Further research could focus more on the relations between green HRM and green supply chain or green marketing; green innovation or alliances and the role of top management teams. Although based on our analysis, we propose our recommendations for further research, this study has also its own limitations. First of all, although there is extensive number of investigated articles the study is limited with these articles; and the perceptions of the authors.

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