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Green Marketing Communication Strategies for Reverse Logistics

Estratégias de Comunicação de Green Marketing direcionadas à Logística Reversa

Estrategias de Comunicación de Mercadeo Verde para Logística Inversa

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KEYWORDS

green marketing, sustainability, reverse logistics. **Abstract:** The impacts on the environment resulting from the production chain processes, as well as the effects that these actions have already caused and their potential future effects, have generated a growing discussion on environmental issues. In this context, the interest of managers in the practice of reverse logistics and green marketing is growing due to the tightening of environmental legislation, consumer pressure, and benefits for the organizational image. The information aimed at the members of the production chain, especially end consumers, is one of the fundamental elements of any initiative in reverse logistics systems and to communicate, encourage, and instruct their customers to adhere to this system, i.e., to use green marketing. Given this scenario, a research problem arises: "What are the green marketing communication strategies used by companies to encourage and instruct their consumers to contribute to reverse logistics?" Thus, this paper aims to list the green marketing communication strategies used by companies to encourage and instruct their consumers to contribute to reverse logistics?"



PALAVRAS-CHAVE Green marketing. Sustentabilidade. Logística reversa. **Resumo:** Os impactos no meio ambiente resultantes dos processos da cadeia produtiva, assim como os efeitos que essas ações já ocasionaram e seus potenciais efeitos futuros, têm gerado uma crescente discussão quanto à temática ambiental. Nesse contexto, o interesse dos gestores pela prática da logística reversa e o marketing verde (green marketing) são crescentes visto o endurecimento das legislações ambientais, a pressão dos consumidores e os benefícios para a imagem organizacional. A informação voltada aos integrantes da cadeia produtiva, especialmente aos consumidores finais, é um dos elementos fundamentais de qualquer iniciativa na área de logística reversa. Nesse contexto, o desafio dos gestores tanto é desenvolver e implementar sistemas de logística reversa, bem como comunicar, incentivar e instruir seus clientes a aderirem a esse sistema, ou seja, fazerem uso do green marketing. Diante deste cenário, surge um problema de pesquisa: "Quais são as estratégias de comunicação de green marketing utilizadas pelas empresas para incentivar e instruir seus consumidores a contribuírem com a logística reversa?" Assim, o objetivo deste trabalho foi elencar as estratégias de comunicação de green marketing utilizadas pelas empresas para incentivar e instruir seus consumidores a contribuírem com a logística reversa.

PALABRAS CLAVE Marketing verde. Sostenibilidad. Logística inversa. **Resumen:** Los impactos sobre el medio ambiente derivados de los procesos de la cadena productiva, así como los efectos que ya han causado estas acciones y sus potenciales efectos futuros, han generado una creciente discusión en torno al tema ambiental. En este contexto, el interés de los directivos por la práctica de la logística inversa y el marketing verde (marketing verde) va en aumento ante el endurecimiento de la legislación ambiental, la presión del consumidor y los beneficios para la imagen organizacional. La información dirigida a los miembros de la cadena productiva, especialmente a los consumidores finales, es uno de los elementos fundamentales de cualquier iniciativa en el ámbito de la logística inversa. En este contexto, el desafío para los gerentes es tanto desarrollar e implementar sistemas de logística inversa, como comunicar, incentivar e instruir a sus clientes para que se adhieran a este sistema, es decir, hagan uso del marketing verde. Ante este escenario surge un problema de investigación: "¿Cuáles son las estrategias de comunicación de marketing verde que utilizan las empresas para incentivar e instruir a sus consumidores a contribuir a la logística inversa? Así, el objetivo de este trabajo fue enumerar las estrategias de comunicación de marketing verde que utilizan las empresas para incentivar e instruir a sus consumidores a contribuir a la logística inversa? Así, el



Introduction

In the current socioeconomic scenario, the increase in the consumption of products and services has contributed to the growth of packaging production and disposal. The "consumer society" cycle has reduced the waste generation time (Samson et al., 2011). From this perspective, a trail of spoils is left behind by the exploitation of natural resources in the production and consumption processes (Maruyama et al., 2019).

Hence, the impacts on the environment resulting from the production chain processes, as well as the effects that these actions have already caused and their potential future effects, have generated a growing discussion on environmental issues (Basu, Bai, & Palaniappan, 2015). In this context, there has been a more significant engagement of organizations to act sustainably since consumers started to demand products, services, and companies with environmentally friendly attitudes (Ribeiro & Santos, 2012). The demand by consumers, combined with market requirements, stakeholder pressure, compliance with environmental legislation, and increasingly fierce competition, forces organizations to assume environmental control, preservation, and recovery policies that aim, in addition to financial gain, to improve their image and reputation (Serokastolka, 2014).

The reverse logistics system aims at post-consumer responsibility, applying representing the application of the "polluter pays" principle (Nascimento & Lima, 2018). Thus, the interest of managers in the practice of reverse logistics is growing due to the tightening of environmental legislation, consumer pressure, and the benefits for the company image (Demajorovic, Augusto, & Souza, 2016). The implementation of reverse logistics, however, still needs to overcome several challenges, such as the development of an infrastructure that can ensure the collection of post-consumer waste and the identification of alternatives to ensure its reuse or safe disposal, minimizing socio-environmental impacts (Vasconcelos, Alves, & Pesqueux, 2012).

When considering reverse logistics, the

perspective of the consumer is still seen with less importance (Khan, Ahmed, & Najmi, 2019). Yet, it is fundamental for the process to occur efficiently and effectively (Valle et al., 2005). Information aimed at the members of the production chain, especially end consumers, is one of the fundamental elements of any initiative in logistics (Vasconcelos, reverse Alves, & Pesqueux, 2012). It is important to highlight that the role of information and communication in logistics processes has historically remained in the background of supply chain management (Bowersox & Closs, 1996).

Thus, one of the significant challenges for the implementation of reverse logistics is the disregard by managers of the role of communication to favor the cooperative work of the actors in the chain, especially the end consumers, who are at the beginning the of reverse flow process (Demajorovic, Augusto, & Souza, 2016). Marketing communication refers to all the tools that make a message reach the target audience (Kotler & Keller, 2006). According to attitude theory, customers are more likely to develop purchasing behaviors according to their attitudes toward marketing communication, marketing decisions, and personal benefits (Ajzen & Fishbein, 1980).

Therefore, the development of green marketing is important for placing the customer as one of the stakeholders in the business, and this generates benefits and affects the strategic marketing performance and planning of organizations (Mele, Molina, & Garay, 2019). Green marketing is the process of planning, implementing, and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met, (2) organizational goals are achieved, and (3) the process is compatible with the ecosystems (Fuller, 1994). Moreover, green marketing must simultaneously satisfy two conditions: develop products with high environmental quality and meet customer expectations (Dangelico & Vocalelli, 2017).

Thus, the challenge for organizations is both to develop and implement reverse logistics systems and to communicate, encourage, and instruct their customers to adhere to the new



system. Many studies have addressed green marketing and supply chain, according to Chen and Chen (2019); however, there is little research regarding reverse logistics. Given this scenario, a research problem arises: "What are the green marketing communication strategies already published in the scientific community used by companies to encourage and instruct their consumers to contribute to reverse logistics?" Thus, the general objective of this paper is to list within the scientific literature the green marketing communication strategies companies use to encourage and instruct their consumers to contribute to reverse logistics.

Theoretical elements of the research

This topic summarizes the main papers and concepts developed on the themes that guide the proposal of this research. The definitions of reverse logistics and green marketing communication are addressed.

Reverse logistics

Pohlen and Farris (1992) defined reverse logistics as the flow of products from a consumer to a manufacturer in the distribution channel. In general, reverse logistics involves collecting used products from end users, sorting them, returning them to the plants, and reprocessing and redistributing them (Budijati et al., 2016). The reverse logistics system aims to take the scraps to the source of their production or marketing chain, with the specific purpose that there be reuse (Mimouni, Abouabdellah, & Abouabdella, 2016).

Reverse logistics is understood as one of the instruments for the application of shared responsibility for the life cycle of products. Reverse logistics is understood as the area of business logistics that plans, operates, and controls the flow of logistics information corresponding to the return of after-sales and post-consumer goods to the business cycle or the production cycle through reverse distribution channels (Leite, 2003). The Brazilian National Policy on Solid Waste (PNRS, Law No. 12305/2010) defined it as follows:

"Economic and social development

instrument characterized by a set of actions, procedures, and means intended to enable the collection and restitution of solid waste to the business sector for reuse, in its cycle or other productive cycles, or another environmentally appropriate final destination" (PNRS, 2010).

To Govindan, Soleimani, and Kannan (2015), reverse logistics begins with the end consumers when other actors of a given chain collect the products used by them, and then, in this system, efforts are employed for waste management. Reverse logistics may be a source of savings for organizations (Mimouni, Abouabdellah & Abouabdella, 2016). For this reason, many companies work to formalize their reverse logistics processes, starting by establishing rules, procedures, and communications so that all stakeholders understand how to act at each moment (Huscroft et al., 2013).

Green marketing communication

Green marketing communication is the promotion of products based on ecological aspects, under the claim that they are "environmentally friendly" in their different stages of the production chain (Karmugilan & Pachayappanb, 2020). Green marketing is part of the concept of Corporate Social Responsibility (CSR) (Prusa & Sadílek, 2019). CSR is the voluntary integration of social and environmental perspectives into the daily operations of a company and in the interactions with the company. It is a business philosophy that meets or goes far beyond what is ethical, legal, and commercial and the social expectations of stakeholders (Govindan, Soleimani, & Kannan, 2001). The CSR approach involves three main areas: environmental, social, and economic. Hence, green marketing is an integral part of the activities of socially responsible companies or even an extension of these activities.

The concept of green marketing (also called ecological marketing, environmental marketing, and sustainable marketing) should mainly cover the following areas: concern for clean air, soil, and water; conservation of nature before devastation; rational use of natural resources with an emphasis on recycling; popularization of an environmental



orientation and a healthy lifestyle; realization of the interconnections of the environment; and hunger and overpopulation (Castenow, 1993). The goal is to develop business activities in such a way as to prevent environmental pollution or reduce the burden on the environment and preserve the natural living conditions for people, animals, and plants or at least change these conditions to improve their lives (Milfont, 2012).

There are two meanings for green marketing – the most restricted is limited mainly to the production of green and environmentally friendly products, while the broader meaning refers to the entire strategy of a company to protect the environment and make efficient use of natural resources in the long term (Zaiem, 2005). Therefore, green marketing must include all activities intended to satisfy human needs and desires with minimal impact on the natural environment (Dubey, 2008).

Even more, marketing communication is the means by which companies seek to inform, persuade, and remind their consumers about the products and brands they market (Kotler & Keller, 2006). It fulfills a prominent role, starting from the use of several communication tools that, in a planned and integrated manner, allow informing consumers and potential customers about the actions, products, and services of a company, in addition to influencing their behavior (Crescitelli & Shimp, 2012).

Thus, marketing communication is a strategic business process used to plan, develop, execute, evaluate coordinated and measurable and persuasive brand communication programs over time aimed at consumers and other target audiences (Belch & Belch, 2008, p. 9). Marketing communication collaborates in various ways with the consumer; through it, it is possible to get to know or see how and why a product is used, by what type of person, when, and where, and consumers can receive information about who manufactures a product and what the company and brand represent (Kotler & Keller, 2006). It has as one of its targets the generation of both financial returns in the short term and the construction of a long-term brand and value to stakeholders (Belch & Belch, 2008, p. 11).

Methodological elements of the research

As proposed, this paper aims to answer the following research problem: "What are the green marketing communication strategies used by companies to encourage and instruct their consumers to contribute to reverse logistics?" To meet this purpose, we opted for research with an exploratory purpose and qualitative nature through bibliographic research.

To Gil (2008, p. 22), the use of the qualitative approach renders it possible to deepen the investigation of issues related to the phenomenon under study and its relationships through the appreciation of direct contact with the situation studied, seeking what was common and open to perceive the individuality and multiple meanings. In turn, exploratory research aims to provide greater familiarity with a problem to make it more explicit or to constitute hypotheses (Gil, 2008, p. 26). A considerable part of exploratory studies may be defined as bibliographic research (Gil, 2008, p. 44). Thus, bibliographic research is developed from material already prepared, and an advantage lies in the fact that it allows the researcher to cover a much more comprehensive range of phenomena than that which they could research directly (Gil, 2008, p. 50).

To carry out the bibliographic research, only scientific articles in the Web of Science – Scopus database were selected, restricting the time interval of publications from 2010 to 2020. The keywords used were "green marketing" AND "logistic" or "green marketing" AND "reverse logistics". A total of 26 documents were found, of which 12 were scientific articles, and seven were used as research analysis material due to greater adherence to the theme.

Presentation and discussion of results

From the selected articles adhering to the scope of the research as described in the methodology, a table was developed with the main contributions of each paper on green marketing communication and reverse logistics. Table 1 is the representation of these contributions.



Table 1Contributions of the literature on green marketingcommunication and reverse logistics

Authors	Contribution
(Karmugilana & Pachayappanb, 2020)	"The most important concern related to green logistics is how to identify the exact solution in a balanced manner to the problems related to the business and environmental issues. Various marketing channel mixes are used by managers to promote their products as environmentally safe. Advertising played an important role in increasing sales of green products. Other factors such as self-awareness, environmental awareness, concerns about society, cultural impact, and attraction to labels were responsible for driving consumers to purchase green products."
(Chou et al., 2020)	"Managers must promote sustainable consumption and participate in the community environment more than once a year. They must promote sustainable concepts to their employees, customers, and other stakeholders."
(Chen & Chen, 2019)	"The growing consumer preference for environmental quality motivates the eco-design of the product. Producing green products attracts more sales, but the products cost more, discouraging customers."
(Prusa & Sadílek, 2019).	"Managers must adopt social change strategies, educating consumers about the environmental dangers humanity faces. More importantly, they need to emphasize that the role of millennial consumers may be fundamental in preserving the environment."
(Dangelico & Vocalelli, 2017)	"Producers must promote complete, correct, and easy-to- understand communication about the information and performance of their products, ensuring that the benefit promoted has a real impact, identifying the specific benefits of the product, providing specific data, and defining technical terms. To do this, the

	associated message must also have the following characteristics: it must be clear, easy to remember, understandable, personalized for the target audience, may be differentiated by country, and must generate emotional commitment. Even so, consumers show that they do not deeply understand all terms related to the environment: the most ambiguous terms with multiple interpretations are 'environmentally friendly', 'green', and 'nature', often used in a very generic manner."
(Lee & Lam, 2012)	"With a proper marketing campaign, products may be promoted, and green culture may further facilitate the development of the green market. Companies mainly care about marketing and promotion before sales and can generally ignore the roles and responsibilities of green marketing after sales, which may further improve the reputation of a company and the loyalty of green customers".
(Sharma et al., 2010)	"The promotion of environmentally friendly products has been particularly successful considering the increase in the number of such products offered in response to customer demands. However, many eco-friendly products fail in the market due to a significant focus only on their ecological aspects. Instead, promotion efforts should focus on how ecological aspects complement other functionalities needed to provide better overall added- value benefits to customers".

Source: prepared by the authors

As shown in Table 1, the articles addressed green marketing communication for promoting "green" products, but only one article related marketing communication with reverse logistics. Moreover, few practical tools for use by managers were listed, and little focus was given to end consumers. In general, the relevance of green marketing is perceived, but there are insufficient studies that relate this marketing tool to the disposal and reuse of packaging after sale and/or



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consumption.

The paper by Dangelico and Vocalelli (2017) brought an applicable view on marketing communication, showing how technical language needs to be translated for the end consumer so that green marketing is effective. The paper is a literature review, and the authors pointed out the trend in the evolution of the number of articles on green marketing found in their search. Hence, there is a growing interest in the topic, confirming that environmental sustainability is not just a passing trend but a key issue when designing and developing the marketing of new products (Dangelico & Vocalelli, 2017).

According to the proposal of the paper, it would be necessary to educate consumers about issues related to the environment and the respectful generation of products, given that a knowledge gap may be observed among buyers (Dangelico & Vocalelli, 2017). Thus, to compose good green marketing, the specific benefits of the products resulting from this process and information related to green marketing would need to be disclosed objectively (Dangelico & Vocalelli, 2017). Despite the rich contribution, the paper did not bring the direct relationship between green marketing and reverse logistics.

In turn, the paper by Lee and Lam (2012) was the only one that emphasized the discussion about green marketing communication and reverse logistics directly. Lee and Lam (2012) showed the relevance of an adequate marketing campaign for promoting green products and reverse logistics. The authors emphasized that green marketing has been steadily gaining influence in both customerand business-centric marketing.

According to Lee and Lam (2012), manufacturers could determine environmentally friendly strategies to meet the environmental awareness needs of their customers and design appropriate solutions to achieve the balance between ecology and economy. Identifying the problem of reverse logistics in sustainable products would increase the efficiency of market operations and competencies that add value to the business processes of its customers (Lee & Lam, 2012).

The paper by Karmugilana and Pachayappanb (2020) argued that various marketing channel

mixes are used by managers to promote their products as environmentally safe. The authors contributed by stating that most consumers are acquainted with the term "green marketing" but do not have exact knowledge about its meaning, which generates neutrality in their opinion about the word sustainable, as also found in the paper by Dangelico and Vocalelli (2017). Despite this fact, the increasing importance of the theme of sustainable issues has made discussions on the subject common on social networks, but there is still much to work on so that the terms are more effective in consumer behavior, according to Karmugilana and Pachayappanb (2020).

The paper by Sharma et al. (2010) emphasized the growth in "green" product offerings in the face of increased demand and argued that marketing promotion should be directed at providing information on how ecological aspects are complemented by other functionalities necessary to provide better overall added value benefits. Furthermore, the marketing function is also crucial to encouraging recycling efforts as part of the sustainability program of a company, according to Sharma et al. (2010). Despite the brief discussion on recycling, there was no deepening of the issue of reverse logistics in the paper.

The paper by Chou et al. (2020) stressed the importance of promoting sustainable consumption and the positive correlation between increased sales and the ecological design of products, despite arguing that the high cost of green products could discourage customers from consuming them. are demanding environmentally Consumers friendly food and products, and it is believed that the marketing mix to display a product's environmental footprints, pricing, and promotion to consumers may increase the value consumers place in favor of the environment (Chou et al., 2020). Thus, the authors argued that the main marketing paradigms when it comes to sustainable issues are associated with the type of green product, its pricing strategy, the place of distribution, and the promotion mix.

Chen and Chen (2019) proposed a framework that relates the increase in sustainable consumption through green marketing and other marketing and production tools. The authors argued that large companies allocated in a



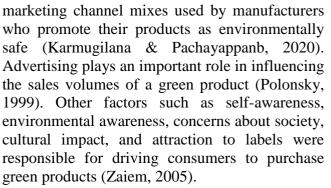
competitive market should bet on technological innovation to implement ecological improvements in their products or even create new green products. In turn, economically less competitive companies should have as their main priority the improvement of the design of the green product, and this is within the scope of green marketing.

Finally, the paper by Prusa and Sadílek (2019) addressed the education of consumers on environmental management by managers. The objective of the research by Prusa and Sadílek (2019) involved analyzing the perception of green marketing by young millennial consumers, given that this generation has already become mature consumers and still has a long journey as consumers. The paper inferred that millennials are a generation of consumers that truly care about the environment, and this care would have already become an integral part of their lifestyle. The role of green marketing was reported in the paper as significant for encouraging this consumption.

Thus, it is possible to state that the effects and overall impact of the green marketing concept indicate that conscious consumers that adhere to green marketing play a positive role in alleviating environmental problems (Milfont, 2012). Therefore, proactive marketers are increasingly promoting green marketing, according to Prusa and Sadílek (2019). In fundamental terms, the behavior of consumers that adhere to green marketing is the behavior of individuals who consider environmental or social issues in making consumption decisions (Ribeiro & Santos, 2012).

For this reason, it is understood that green marketing tools should be explored as to the incentive and instruction on reverse logistics, given that the behavior of consumers that adhere to green marketing campaigns directly impacts environmental issues. For better effectiveness of this issue, it is suggested that green marketing strategies be contained in the strategic planning of an organization. This is because strategic planning may be considered fundamental for the promotion of organizational longevity, being a form of critical exercise for any organization, from the point of origin to the point of destination, based mainly on how the business should look competitively in the future (Alberti et al., 2014).

Finally, it was observed that several are the



Thus, it is understood that green marketing may be valuable for organizations that are actually engaged in promoting environmental practices outside organizational inside and their environments. It is noticed that this strategy may still be better explored within the academic and professional environments. Even more so with regard to reverse logistics, which despite regulation in the Brazilian environment, still presents obstacles to its operationalization. Green marketing could come to be a facilitator in this process.

Final considerations

This paper aimed to list the green marketing communication strategies used by companies to encourage and instruct their consumers to contribute to reverse logistics. The objective was partially achieved, as discussed in the results; this was because the papers presented the functions of green marketing and its benefits for the promotion of products and services in general, but only one article addressed the direct relationship between green marketing and reverse logistics. It is known that the challenges of reverse logistics are many, even among products outside the scope of green marketing, so there is the first opportunity of agenda for new academic research. It is suggested, therefore, a research agenda in the face of the opportunity of the empirical and theoretical study on the use of green marketing tools for promoting reverse logistics.

Some limitations permeated this research, such as the database, since the literature review was done with articles from a single database. The time interval was ten years, and the search was restricted exclusively to scientific articles, discarding other sources of information such as



books and congress proceedings. Thus, it is understood that the cut made for this research had its limitations, but it was possible to find information that allowed proceeding with the study.

Concerning what was found in the research, it is possible to state that, among the analyzed papers, green marketing tools were identified that were discussed generically, with little details as to the practice of managers. It is understood that management may be more efficient if managers have knowledge about the most effective resources to promote green marketing. Thus, we see a second proposal of agenda for future research: a study on the practical tools used by managers to promote *green marketing*. It is suggested that future research be associated with the strategic planning of these resources and not limited only to the description of the tools for better use by the reading community.

The papers analyzed also showed consistency in stating that consumers have had a tendency to choose products with sustainable aspects: green products. Despite this trend, it was observed that there are opportunities for improvements in the communication of companies with their consumers since the terms related to green marketing are still broad and possibly confusing for the consumer. Thus, a third proposed research agenda is the analysis of the effectiveness of green marketing communication and the proposition of more efficient methods.

Finally, the analyzed studies pointed out that green marketing should be a more exploited tool to encourage the consumption of green products. It is suggested that it be expanded to the instruction on reverse logistics since the behavior of the consumer who adheres to green marketing campaigns directly impacts environmental issues.

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