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TRIPARTITE ROLES IN THE PROMOTION OF SUSTAINABLE CONSUMPTION: THE CASE OF XANXERÊ – SC

PAPÉIS TRISSETORIAIS NA PROMOÇÃO DO CONSUMO SUSTENTÁVEL: O CASO DE XANXERÊ – SC¹

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Abstract

The promotion of sustainable consumption is part of the Agenda 2030 as one of the main objectives of Sustainable Development (ODS), which requires identifying and analyzing the roles of the actors responsible for this process, including governments, companies, and civil society. The plastic bags are an icon of Brazilian consumption that causes damage to society and the environment. The need to intervene in their consumption patterns and levels is evident. Thus, this article aimed to analyze the process of promoting sustainable consumption adopted in the Program for Reduction of Consumption of plastic bags in supermarkets in the city of Xanxerê - SC, from the tripartite roles identified in recent studies. This study is qualitative research was carried out through a case study of an exploratory and descriptive nature, based on semi-structured interviews with social subjects relevant to the program and documentary analysis. We analyzed seventeen government roles, eleven company roles, and seven civil society roles identified in the literature. The results show that the involvement of the actors of the three segments of society, from the construction of spaces of dialogues and negotiation to generate viable alternatives and promote cultural change, was essential for the program's effectiveness, with emphasis on the participation of civil society.

Keywords: Sustainable consumption. Tripartite partnerships. Plastic bags.

Resumo

A promoção do consumo sustentável faz parte da Agenda 2030, como um dos principais Objetivos do Desenvolvimento Sustentável (ODS), o que requer a identificação e a análise dos papéis dos atores responsáveis por esse processo incluindo governos, empresas e sociedade civil. As sacolas plásticas são um ícone de consumo brasileiro que causa danos à sociedade e ao meio ambiente, de modo que se evidencia a necessidade de intervir nos seus padrões e níveis de consumo. Assim, este artigo teve como objetivo analisar o processo de promoção do consumo sustentável adotado no Programa de

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Redução do Consumo de sacolas plásticas nos supermercados na cidade de Xanxerê – SC –, a partir dos papéis trissetoriais identificados em estudos recentes. Esta pesquisa é qualitativa, realizada por meio de um estudo de caso de natureza exploratória e descritiva, a partir de entrevistas semiestruturadas realizadas com sujeitos sociais relevantes para o programa e análise documental. Foram analisados 17 papéis de governo, 11 papéis de empresas e 7 papéis da sociedade civil identificados na literatura. Os resultados apontam que o envolvimento dos atores dos três segmentos da sociedade, a partir da construção de espaços de diálogos e negociação para gerar alternativas viáveis e promover uma mudança cultural foi essencial para a eficácia do programa, com ênfase na liderança das empresas e na participação da sociedade civil.

Palavras-chave: Consumo sustentável. Parcerias trissetoriais. Sacolas plásticas.

Introduction

The 1970s highlighted the environmental crisis and brought the challenge of establishing a harmonious relationship that considers the interdependence of society with the ecosystem and its limits, redefining the parameters of development so that the principles of balance and equity guide them. It guarantees survival conditions for both the current and future generations, defined primarily as sustainable development.

This discussion's fundamental question depends on societies' capacity to submit to the precepts of ecological prudence and make fair use of nature, aiming to reconcile economic growth, conservation of ecosystems, and social justice (ARIVUMANI & VIJAYALAXMI, 2017). One of these proposal's main objectives is present in the Sustainable Development Goals - Agenda 2030 (UNITED NATIONS, 2015; ARIVUMANI & VIJAYALAXMI, 2017) modification of production and consumption patterns that are considered unsustainable. Because the excessive exploitation of natural resources does not recognize the finitude of natural systems, the capacity for assimilation of waste by the environment is exceeded, and the access to the wealth produced to be unjust and unequal (PORTILHO, 2005; JACKSON, 2006). The aim is to improve progressively, until 2030, the efficiency in the use of global resources in consumption and production, and strive to decouple economic growth from environmental degradation (UNITED NATIONS, 2015).

This discussion's fundamental question depends on societies' ability to submit to the precepts of ecological prudence and make good use of nature, aiming to reconcile economic growth, conservation of ecosystems, and social justice (ARIVUMANI & VIJAYALAXMI, 2017). One of this proposal's main objectives, present in the Sustainable Development Goals - Agenda 2030 (UNITED NATIONS, 2015; ARIVUMANI & VIJAYALAXMI, 2017), is the modification of production and consumption patterns. That is considered unsustainable by promoting excessive exploitation of resources natural resources that do not consider the finitude of natural systems, to exceed the capacity of assimilation of waste by the environment, as well as the access to the wealth produced to be unjust and unequal (PORTILHO, 2005; JACKSON, 2006). The aim is to improve progressively, until 2030, the efficiency in the use of global resources in consumption and production, and strive to decouple economic growth from environmental degradation (UNITED NATIONS, 2015).

As a possibility to face this problem, the term "sustainable consumption" emerged as a new proposal that includes, in addition to incremental changes about production and consumption processes, macro-structural changes in a broader context (PORTILHO, 2005; COSTA; TEODÓSIO, 2011; OLIVEIRA et al., 2018a). Promoting changes in consumer practices in search of sustainability is challenging because they imply structural changes in the way societies are organized (TUKKER et al., 2008; OLIVEIRA et al., 2018a) long-term return perspective. Besides a diversity of requirements for interventions in specific realities, it considers consumption as a multifaceted and complex phenomenon (PORTILHO, 2005; JACKSON, 2006) how as technological innovations and individual changes in consumption practices, collective actions, and new political, economic, and institutional propositions (PORTILHO, 2005; VIEGAS; TEODÓSIO, 2011).

Contemporary studies on sustainable consumption point out that actors must promote it from governments, companies, and civil society (OLIVEIRA et al., 2018a). In this sense, three studies were identified that present each of these actors' roles in the process of promoting sustainable consumption validated for the Brazilian context with a group of specialists on the subject. One

addresses the roles of government (OLIVEIRA et al., 2016), another lists the roles of companies (OLIVEIRA et al., 2018b), and the third presents the roles of civil society (OLIVEIRA et al., 2018a).

The plastic bags that are an icon of Brazilian consumption. Its excessive consumption in supermarkets, stimulated by gratuity and availability, has a great environmental impact that generates collective damage to society (BRASIL; MMA, 2011). It imposes the need to intervene in these consumption patterns, and researching the roles of promoting sustainable consumption in this segment is of great importance.

Given the above, this article's objective was to analyze the process of promoting sustainable consumption adopted in the Program for Reducing the Consumption of plastic bags in supermarkets in the city of Xanxerê - SC, based on the tripartite roles identified in the literature. This empirical case's choice was because the plastic bag consumption reduction program was the pioneer in Brazil and referred to by the Ministry of the Environment as a case of success, which occurred from the performance of government, business, and society actors civil. In methodological terms, this research consists of a case study, an exploratory and descriptive nature, based on semi-structured interviews with social subjects relevant to the program.

Sustainable Consumption

Consumption was inserted in the debates on sustainability from the 1990s, due to its levels and patterns associated with the environmental impacts of large-scale production - increased levels of pollution, degradation, and depletion of natural resources. Modifying them then came to be considered one of the main objectives of the proposal for sustainable development, established in Chapter 4 of Agenda 21, to prioritize the optimal use of resources and reduce waste to a minimum. Currently, production and sustainable consumption are included among the 17 Sustainable Development Goals - Agenda 2030 (UNITED NATIONS, 2015; ARIVUMANI; VIJAYALAXMI, 2017).

Several concepts have emerged associated with strategies and analyze consumption practices that aim to obtain solutions to the socio-environmental implications arising from advances in their standards and levels. Many of them are focused on consumer behavior, giving them broad responsibility for their consumption choices, making them assume the costs resulting from technological solutions incorporated into the products (FUCHS; LOREK, 2005; BRADLEY, 2019). It results from a kind of transfer of regulatory activity, presented by Portilho (2005), in two aspects: a) the state transfers it to the market, through self-regulatory mechanisms, b) from the state and the market the citizen, through their consumption choices.

However, evidence demonstrates that improvements in the efficiency of a product's resources, such as a reduction in industrial energy savings and emission of pollutants, have often been hampered by rebound effects resulting from increased consumption levels (FUCHS; LOREK, 2005; CLARK, 2007; DERMODY et al., 2018). Furthermore, the market logic that defends the consumer's right to make efficient choices transfers the responsibility for sustainable consumption from a collective perspective to an individual one. The consumer is conceived as capable of solving this problem based on his choices. consumption (JACKSON, 2006; CLARK, 2007). This is a misconception that only consumers are the ones who determine consumption patterns.

Thus, it is necessary to assign responsibilities for consumption patterns and levels and the resulting impacts between different social and institutional actors that operate within the historical flow and social and cultural processes in which consumption practices occur (DOLAN, 2002; JACKSON; 2006; TUKKER et al., 2008).

In this context, proposals have emerged that emphasize collective actions and political and institutional changes, such as the proposal for sustainable consumption (OLIVEIRA et al., 2016; OLIVEIRA et al., 2018a; OLIVEIRA et al., 2018b). It is necessary to consider aspects of consumption and technological, economic, and behavioral issues so that sustainable consumption takes on more complex shapes and involves macro-structural changes that alter the economic, social, and cultural structures on which current consumption practices are anchored. It includes the performance of government actors, companies, and civil society.

Tripartite roles in promoting sustainable consumption

As a sociocultural phenomenon, consumer practices are developed from manifestations of local and global connections of social interdependencies (JACKSON, 2006), continuously looking at the consumer as the only one who determines the unsustainability of consumption effectively

decontextualizes their practices of such interdependencies (BARBER, 2007). It must be accepted that the process of promoting sustainable consumption is more complicated than a change in individual values and practices and the adoption of clean production technologies (SCHAFER; CRANE, 2005; TUKKER et al., 2008; VRINGER et al., 2017; OLIVEIRA et al., 2018b).

Much of the effort to promote sustainable consumption is based on a set of theoretical assumptions called ethical value paradigms, which adopt social and moral values, such as human solidarity and ecological sensitivity, as determining elements of the transition to consumption sustainable (HOLT, 2012; VRINGER et al., 2017). However, there is a gap between attitudes and sustainable consumption behaviors, which means that individuals declare that they favor protecting the environment does not mean that they do their part in making changes in their daily consumption (LOREK; SPANGENBERG, 2014).

Thus, sustainable consumption promotes the need to establish collective actions and political, economic, and institutional changes that converge on the need for articulation between actors from the state, the market, and civil society (COSTA; TEODÓSIO, 2011; UNITED NATIONS, 2015). It meets the requirements regarding access to natural resources, a guarantee of a balanced environment, and social justice within and between generations.

The representatives of each sector of society need to be taken into account to adopt strategies to contribute to the transition to a sustainable consumption model. It makes it possible to identify common challenges, potential synergies, and collaboration between them, so that actions implemented in one sector support, or at least do not prevent, what needs to happen in other sectors to achieve sustainability (BROMAN; ROBERT, 2017). One should start from the actors' broad participation from the three sectors in the public spaces of the debates and actions on the necessary changes, each playing their roles (UNITED NATIONS, 2015; ARIVUMANI; VIJAYALAXMI, 2017).

In this sense, three studies were identified based on shared management of socio-environmental problems associated with consumption that involves the actions of governments (OLIVEIRA et al., 2016), companies (OLIVEIRA et al., 2018b), and civil society (OLIVEIRA et al., 2018a). One of the main challenges in establishing these partnerships between governments, companies, and civil society that involves promoting sustainable consumption is the structural dynamics of their cooperation and governance relationships (LOREK; FUCHS, 2013; ŮLKŮ; HSUAN, 2018). This dimension refers to the dilemma faced by the actors about the games of cooperation and confrontation, characterized by relations of power and domination in social action, revealing realities that are not overcome, but that constitute constituent and structural parts of the partnership processes (BRONZO, TEODÓSIO, ROCHA, 2012).

The roles identified in the referenced studies are categorized into macro, meta, and micro performance levels, considering the scope of action and the impact generated in the context where they can be put into practice. These roles were consolidated in Figure 1 and were used as a basis for carrying out this study.

Figure 1: Tripartite roles in promoting sustainable consumption

Roles for promoting sustainable consumption			
	Governments	Companies	Civil Society
Macro Level	Fight oligopolistic and monopolistic markets Formulate pricing policies that reflect environmental costs Create regulatory mechanisms Abolish subsidies for unsustainable markets Establish consumer protection mechanisms Set advertising standards	Establish mechanisms for the dissemination for better social and environmental practices in the market	Collaborate with the elaboration public policies Create educational methods for sustainable consumption
Meta Level	Oversee compliance with environmental regulations Promote subsidies for the development of sustainable initiatives. Promote a level playing field for the production and distribution of environmentally friendly products. Cultivate sustainable initiatives Establish partnerships with NGOs Promote transparency criteria on the social and environmental performance of products Promote environmental education Motivate consumers	Promote sustainable supply chain Exercise corporate citizenship Dialogue with stakeholders Practice responsible marketing Provide environmental product information through labels and stamps	Put pressure on governments and businesses Promote discussions on the subject Form fair trade networks
Micro Level	Adopt policies of public purchases sustainable Maintain transparency and auditing in government consumption practices Use indicators focused on sustainable consumption strategy	Adopt Eco-Efficiency Principles Promote Product Lifecycle Analysis Develop sustainable products Promote the use of environmentally friendly packaging Adopt ecotaxes	Promote and carry out boycotts Promote Buycotts

Incentives/Pressures/Influences

Source: Elaborated from Oliveira et al., (2016), Oliveira et al (2018a) and Oliveira et al., (2018b)

Because of the above, it is considered that the papers presented are flexible and allow adaptations to specific themes and contexts that involve initiatives to change patterns and levels of consumption in terms of sustainability. As the analysis object in this study is plastic bags' consumption, the environmental issue is surrounding this consumption practice.

The problem of plastic bags

It is common practice in Brazil to distribute plastic bags in several commercial establishments to promote convenience and practicality to its customers, associated with the low cost they represent. However, this availability generates the feeling of zero cost, and increasingly stimulates its consumption, masking the reality of the high environmental cost linked to its excessive consumption (BRASIL; MMA, 2011).

The environmental problems associated with plastic bags' consumption start in its production process due to the used raw material. It is derived from petroleum, a non-renewable substance made from a resin called low-density polyethylene (LDPE), generating waste and toxic emissions in the production of plastic and water and energy consumption in this process. Besides, there are still problems related to cities' pollution, forests, water bodies, and clogging of water passage in maintenance holes and streams. It contributes to floods and the retention of more garbage, the death of thousands of animals due to asphyxiation and starvation resulting from inadequate disposal, and its degradation in the environment taking centuries (SANTOS et al., 2012; DE DEUS et al., 2014). It is estimated that 41 million plastic bags are consumed per day in Brazil, 1.25 billion per month, and 15 billion per year, which ends up representing approximately 9.7% of all Brazilian waste (BRASIL; MMA, 2011). Figure 2 shows the main impacts caused by this product.

Figure 2: Impacts of plastic bags



Source: Lima, 2016.

To face this problem, it becomes necessary to provide viable alternatives and develop a structure of initiatives based on joint action between governments, companies, and civil society that favor the achievement of the established goals and allow a cultural change in the bag consumption process plastic.

Methodological procedures

This article's objective was to analyze the process of promoting sustainable consumption adopted in the Program for Reducing the Consumption of plastic bags in supermarkets in the city of Xanxerê - SC, based on the tripartite roles identified in the literature. For this, we made an exploratory and descriptive case study, which is considered the most appropriate method for questions involving the "how" and the "why" (YIN, 2010).

The approach adopted was qualitative to confront the three-sector roles of promoting sustainable consumption and the program's practices to reduce plastic bags' consumption in Xanxerê - SC. It is considered an emblematic case, with a prominence at the national level in achieving the objectives proposed, that is, to significantly reduce the consumption of plastic bags in supermarkets, making it possible to classify them.

About the respondents, we sought to privilege those social subjects who had information about the development and dynamics that involve the plastic bag reduction program in supermarkets in Xanxerê - SC. In this sense, using the snowball technique that started with the creator of the program, six relevant social subjects were identified and investigated, namely: two supermarket managers (E1 and E2), the leading creators of the program; one employee from the Secretary of Education (E3) and another from the Secretariat of Environmental Policies of the Municipality of Xanxerê - SC (E4), responsible for preparing the partnership project that involves the program; a representative of the Local Agenda 21 (E5) and a representative of the Xanxerê Residents' Association who actively participated in the implementation of the Program (E6). We used diverse

data collection techniques, document analysis, and semi-structured interviews online (FLICK, 2009). The interviews followed a script based on the tripartite roles for promoting sustainable consumption identified in recent literature.

Due to the amount of information obtained, content analysis was adopted as a method (BARDIN, 2011) to identify the connections and categories in the transcripts of the interviews carried out and the other documents analyzed. The criterion of scientific rigor required for studies of this nature, the data analysis followed the three steps of the content analysis method proposed by Bardin (2011), namely: pre-analysis, exploration of the material, and treatment of results and interpretations.

Results

The city of Xanxerê - SC is located in the interior of Santa Catarina and was a pioneer in Brazil in adopting a campaign to encourage the use of returnable bags in its supermarkets, adopting the motto "A small action makes a big change." It has around 45 thousand inhabitants and is considered one of the most developed municipalities in western Santa Catarina and the second-largest beef cattle producer in the state (IBGE, 2011). The Human Development Index (HDI) in 2010 was 0.775 (UNDP, 2014), situated in the High Human Development range (HDI between 0.7 and 0.799) according to the UNDP criteria and is above the current average of the Brazilian HDI, which is 0.730 (UNDP, 2014). These data demonstrate that the municipality's contextual issues, in terms of HDI as a measure of development, have better levels than the country's general data.

There was an indication of the monthly consumption of one million plastic bags in the municipality before implementing the program. After a year of implementation of the program, which took place in 2009, monthly consumption increased to eighty thousand plastic bags per month, representing a reduction of approximately 92% of the total previously consumed. Based on these data, the program developed in Xanxerê - SC came to be considered a typical case of actions to reduce plastic bags' consumption in supermarkets. Thus, it has become an emblematic case to verify the empirical application of the roles of promoting sustainable consumption.

The initiative to promote the plastic bags consumption reduction program took place in the city's supermarket sector when planning the end-of-year actions in 2008. One of the interviewees stated that supermarkets were touched by an email they received and warned about the environmental impacts that the consumption of plastic bags generated on the environment. However, the actors involved in the program's design to reduce plastic bags' consumption in the municipality recognize that they made a mistake at the beginning of its implementation. They disclosed in the advertising material previously presented when they would no longer be free plastic bags were provided in the city's supermarkets, without first having dialogues with government and civil society representatives to offer the program and reconcile interests.

Initially sounded like an imposition by supermarkets and not a project that needed social support from the population to succeed. According to the interviews, this was when the municipal government's articulations, with PROCON, and civil society representatives were crucial to take the initiative forward. Thus, it started the Plastic Bag Consumption Reduction Program's development process effective in the city of Xanxerê - SC.

Roles played by the Xanxerê government

Government action is essential in changing the social and political structure that anchors unsustainable consumption patterns (MICHAELIS & JACKSON, 2003; JACKSON, 2006 TUKKER et al., 2008). At the macro level, the roles identified as relevant and applied to the case of Xanxerê - SC were: the institution of consumer protection mechanisms; the formulation of prices that reflect the environmental costs of the products; and the fight against oligo and monopoly markets. The interviewees consider that the municipal government's support was essential for the good results achieved in the program to reduce the consumption of plastic bags in Xanxerê - SC.

According to respondent E2, "the Public Prosecutor's Office and PROCON played an important role as bodies instituted by governments to promote the defense of consumer rights." They were unanimous in reporting that some consumers' resistance to having to pay for conventional plastic bags or returnable bags was one of the episodes that reinforced the need to raise community awareness and expand support and articulation with government agencies' defense interests of consumers and representatives of society. It corroborates the studies by Teodósio (2011) and

Oliveira et al. (2016) on the need to establish intersectoral partnerships to strengthen democratic dialogue.

Thus, a public hearing was held promoted by the Public Prosecutor's Office with representatives from PROCON, supermarkets, the Xanxerense Residents' Union, and the Xanxerê Commercial, Industrial, and Agricultural Association. At this hearing, respondents reported arguments in favor of and against plastic bags' free availability in supermarkets.

In the meeting with PROCON and other team members, some questions were defined regarding the formulation of prices that reflected plastic bags' environmental costs. It is worth mentioning that the problem of prices for bag alternatives was not a role played by the government, but was part of a negotiation process between the different parties involved with the project. Within the scope of this discussion, it is considered that for significant changes in consumption patterns to occur shortly, it is necessary to demonstrate to both producers and consumers the environmental costs of the products and the waste they generate (BRASIL, 2002), which must be reflected in their prices.

Decisions taken in conjunction with PROCON involved guaranteeing consumers' right to choose, presenting them with several bag options so that they could make their choices according to their conditions and needs. It is associated with the government's role of fighting oligo and monopoly markets, as stated by Tukker et al. (2008), to avoid that only one type of material/packaging is offered.

As for environmental regulation, it was found that this role was not played by the municipal government for the implementation of the program, despite the interviewees recognizing that it is potentially applicable to the case under study. Respondents E5 and E6 argued that the use of specific legislation, in this case, could sound like a legal imposition and increase people's resistance to promoting changes in their consumption habits. Jackson (2006) emphasizes that the use of regulations to institute command and control mechanisms, especially when it comes to consumption, has been challenged in terms of effectiveness and efficiency over the years.

According to the interviewees, the roles that do not apply to the case investigated were to eliminate protection to environmentally harmful markets, because municipal government subsidies for the plastic bag production sector are not offered and to define advertising rules since this sector is self-regulated in Brazil.

At the meta-level, we evaluated eight government roles. It includes the enforcement of environmental regulations, promotes a level playing field for the production and distribution of ecological bags, and establishes partnerships with NGOs working with changes in consumption patterns. And to promote socio-environmental performance criteria for plastic bags and reusable bags were identified as potentially applicable to the case investigated, but not yet performed.

The participation of government actors in the program to reduce the consumption of plastic bags, at the meso level, occurred through the articulation and partnership between the Education and Environmental Policy Departments. This articulation of the municipal government in the program as promoting public programs that provide subsidies for sustainable initiatives is a relevant role highlighted by Jackson and Michaelis (2003). However, it should be noted that the program is not in its essence "governmental" since it is not structured only in governmental actions. It also includes essential activities by supermarket companies and representatives of civil society, prioritizing efforts based on the collective interest in defense of the environment, the principle of pointing partnership by Teodósio (2011), and shared social and environmental responsibility emphasized by Tukker et al. (2008) and Porter and Kramer (2018).

Investments of municipal government had to focus on education for sustainable consumption, which, according to Barber (2007), is citizen mobilization's main pillars. Children who were sensitized in schools about the environmental issue that involves the consumption of plastic bags when accompanying their parents to supermarkets hardly let them pack their purchases in conventional plastic bags reported the interviewee E4.

In addition to environmental education, the program's creators were invited to present the case in several surrounding municipalities related to establishing programs and networks to cultivate sustainable initiatives and encourage successful ones to be replicated. Respondents E2 and E6 stressed that the municipal government's support was essential for them to become a national reference in reducing plastic bags' consumption, becoming a successful case disseminated in several locations in Brazil.

Another identified role was that to motivate consumers to join the program through engagement, the municipal government of Xanxerê, acting in partnership with the other organizations promoting the program, adopted the feedback mechanism through the dissemination of different results communication channels are being reached by the program. The purpose is to inform consumers of how many plastic bags they aren't consumed each year and the social and environmental benefits.

Respondents E1, E5, and E6 stressed that government support could not be directly linked to a politician or a party, compromising the project's future. One must consider the conflicts that are probably inserted in the partnerships established between governments, companies, and NGOs. Teodósio (2011) emphasizes that these can take on greater importance and impact in sustaining programs and projects in the long-term, especially when considering the insertion of government actors subject to alternating power.

At the micro-level, the analysis focused on the roles that involve government practices, as a consumer, in the adoption of mechanisms to promote sustainable consumption, such as: adopting public procurement policies that use sustainability criteria; use control and transparency mechanisms in government consumption practices; and to adopt indicators focused on the sustainable consumption strategy to favor learning. According to the documentary data and the interviews conducted, there is no government engagement in the performance of such roles. However, respondents emphasized that the government needs to advance its internal consumption policies to serve as an example of sustainable public procurement for local society. In summary, Figure 3 shows the results of applying for government roles in the case investigated.

Figure 3: Summary of the results of the application of government roles in Xanxerê - SC

Level	Government Roles	Applicability
Macro	Eliminate the protection of environmentally damaging markets	No
	Environmental regulation	Yes*
	Establish consumer protection mechanisms	Yes
	Formulate pricing policies that reflect the environmental costs of products	Yes **
	Fighting oligo and monopoly markets	Yes
	Define advertising standards	No
Meta	Monitoring of environmental regulations	Yes *
	Promote environmental education	Yes
	Support the development of sustainable consumption initiatives	Yes
	Define criteria for the socio-environmental performance of products	Yes *
	Establishing a level playing field for environmentally friendly products	Yes
	Establish program and networks to replicate sustainable initiatives	Yes ***
	Establish partnerships with NGOs	Yes
	Motivate consumers through engagement	Yes
Micro	Promote sustainable public procurement	Yes *
	Maintain transparency in government consumption practices	Yes *
	Maintain an open learning culture	Yes *

Source: Research data.

* Potentially applicable to the case, but not yet performed.

** Applicable to the case, but not entirely performed.

*** Government action in partnership with other actors involved in the program

Roles played by supermarkets in Xanxerê

At the macro level, the only role of the companies involved in the analyzed program. It refers to the dissemination of best socio-environmental practices related to the fact mentioned above. The initiative to implement the program to reduce the consumption of plastic bags in the city of Xanxerê - SC was promoted by the city's supermarket companies. It corroborates the argument presented by Michaelis (2003) that companies can take the lead in this process and institute mechanisms to disseminate best socio-environmental practices in the market.

At the meso level, we analyzed five roles. The exercise of corporate citizenship involves a high standard of ethical conduct by companies towards their stakeholders. As emphasized by Michaelis (2003) and which involve responsible practices in the economic, legal, ethical, and

philanthropic dimensions, Carroll (1998) pointed out there was a concern on supermarkets regarding the impact that the program would have on their consumers. Thus, they made investments in publicity campaigns on radio, TV, internet, and other printed materials, before starting the program to reduce the consumption of plastic bags, transmitting information to raise the population's awareness of the need to change consumption habits plastic bags in supermarkets. These advertising materials informed the campaign's start date and the importance of purchasing returnable bags since supermarkets would no longer supply plastic bags for free. Also, there was a concern by companies to monitor the acceptance of the campaign over time. Interviewee E1 stated that "the data revealed that in March 2009 the acceptance was around 54.84% and that, with only one year of the campaign, the acceptance increased to 86.08%".

These issues are also associated with the role of companies in promoting responsible marketing that aims to stimulate collective cultural change through the communication and advertising mechanisms of companies, which occurs, according to Michaelis (2003) and Tukker et al. (2008), due to the influences it can have on consumers and society.

The dialogue with stakeholders to review the values shared among employees, customers, and the community in which supermarket companies operate. It's necessary to gain a broader understanding of the changes required to promote the reduction in the consumption of plastic bags. The supermarkets invested in the relationship with customers and the community, but it needs to focus more on employees.

Another role analyzed was the provision of information on bags through labels. All respondents stated that the marketed returnable bags adopted a standard in which there is an indication of an "ecological bag" linked to the name of the city (Xanxerê - SC). It impacted local culture and favored a change in consumer behavior and their identities so that it became a symbol of local culture in terms of protecting the environment.

Respondents E1 and E3 highlighted the difficulties of companies to play the role of promoting the sustainable supply chain with a focus on shared socio-environmental responsibility, mainly because it involves the economic interests of some stakeholders. They cited as an example the resistance presented by businesspeople manufacturers/suppliers of plastic bags who even distributed false messages, falsely attributing them to the Akatu Institute, which informed local consumers that returnable bags did not significantly reduce the environmental impact.

However, on the other hand, some supermarkets have established partnerships with some suppliers to carry out the reverse logistics process. They implanted collection points in their establishments for products such as cooking oil, batteries, light bulbs, which contribute in a broader context for promoting sustainable consumption in the city by promoting these products' proper disposal.

At the micro-level, we assessed five companies' roles. The respondents agreed the concept associated with ecological bags helps to reduce the consumption of plastic bags. It is related to developing sustainable products and promote the use of ecological packaging. It involves the performance of these two roles by companies. It is in line with Tukker et al. (2008) and Barber (2007) that these strategies can reduce natural resources and promote a lower environmental impact on consumption activities.

The adoption of eco-efficiency principles in supermarkets considered this an important incentive factor for using returnable bags in commercial establishments in the municipality, focusing on the environmental impact of this habit. Interviewee E4 mentions that "before the program was implemented, it was visible to the environmental pollution caused by plastic bags scattered on the city streets, which is no longer observed today." All respondents considered that companies could demonstrate greater engagement with the issue, adopting their internal activities strategies to reduce water and energy consumption.

Concerning the analysis of conventional plastic bags' life cycle, the prior existence of this information was essential for the initial mobilization by local entrepreneurs to implement the program to reduce the consumption of plastic bags, as reported by all interviewed.

Finally, about the companies' responses to government incentives and regulations, the interviewees stated that there are still no initiatives in this regard in the city of Xanxerê - SC. However, they stressed the importance of sharing, across the value chain, both the costs and incentives offered by governments to make the necessary changes. Figure 4 shows the synthesis of the results.

Figure 4: Summary of the results of the application of the roles of companies in Xanxerê – SC

Level	Companies roles	Applicability
Macro	Disseminate best socio-environmental practices	Yes
Meta	Provide socio-environmental information on products on labels and stamps	Yes*
	Promote the sustainable supply chain	Yes**
	Exercising corporate citizenship	Yes
	Maintain continuous dialogues with stakeholders	Yes
	Practice Responsible Marketing	Yes
Micro	Develop sustainable products	Yes
	Adopt eco-efficiency principles	Yes**
	Product life cycle analysis	Yes
	Use environmentally friendly packaging	Yes
	Use Eco-fees	Yes*

Source: Research data.

* Potentially applicable to the case, but not yet performed.

** Applicable to the case, but not entirely performed.

Roles played by Xanxerê civil society

The Agenda 21 Local, the Xanxerê Residents' Association, the Lions, Rotary Associations, and a theater group were involved in the program to reduce plastic bags' consumption, which characterizes the involvement of civil society in that locality in the investigated program. At the macro level, two roles were analyzed. The organizations' participation above in the decision-making process for implementing the program points to civil society's involvement in the formulation of public policies. The interviewees also consider that civil society actively participated in the formulation of education methods for sustainable consumption with the performance of an Excelsior theater group that developed educational plays that aimed to sensitize and make Xanxerê residents aware of the relevance of changes in habits consumption. In this context, in the documentary analysis (BRASIL; MMA, 2011), it was identified that there is still the proposal of the Local Agenda 21 to launch a stamp to highlight the commercial establishments that joined the program. The purpose is to expand the program's performance, including other local commerce segments such as bookstores and pharmacies.

At the meta-level, about the exercise of pressure on governments and companies, civil society organizations' activities occurred mainly during the public hearing mentioned above. The representative groups were heard and part of the decision-making process in implementing the program in the city. These organizations' participation was necessary due to their social legitimacy and their potential to influence society's values, which is in line with the argument emphasized by Fuchs and Lorek (2005) and Lorek and Spangenberg (2014).

This articulation of civil society representatives with the plastic bag reduction program sought to promote discussions on the topic. The performance of this role takes on greater relevance when considering the capacity of civil society to promote the spread of more sustainable lifestyles, as stated by Fuchs and Lorek (2005) and Jaergen-Erben et al. (2015) so that the debate helped to stimulate consumer engagement in the investigated program.

Another critical role played by Xanxerê civil society was forming a fair trade network for the production/marketing of ecological bags outside the conventional market, an aspect also addressed by Jaergen-Erben et al. (2015). Respondents E1, E2, and E5 reported that with the implementation of the program in the city, local production of returnable bags was encouraged, which involved some community organizations, in addition to a local charity that works in the treatment and recovery of drug addicts and alcohol and the women's league to fight cancer.

Finally, at the micro-level, two roles were investigated. About the boycott role to punish companies that exhibit unacceptable behavior to society and the environment, no actions have been reported in this regard, considering the literal meaning attributed to the term. On the contrary, according to respondent E1, some consumers were resistant to the supermarkets that were part of the program initially.

On the other hand, the interviewees stated that the local establishments that joined the program are rewarded through the buycott. Many of the consumers engaged in the program were

advertising word of mouth and maintaining a loyalty relationship with supermarkets. Figure 5 shows the synthesis of the results.

Figure 5: Summary of the results of the application of civil society roles in Xanxerê - SC

Level	Civil Society Roles	Applicability
Macro	Engage in the formulation of public policies	Yes
	Develop education methods for sustainable consumption	Yes
Meta	Put pressure on governments and businesses	Yes
	Promote discussions on the topic of sustainable consumption	Yes
	Formation of fair trade networks	Yes
Micro	Promote Boycotts	Yes
	Promote Buycott	Yes

Source: Research data.

The evidence on promoting sustainable consumption, found in the results presented, reinforces the need for action and articulation of the actors in the three sectors - government, companies, and civil society, as indicated by contemporary literature on the subject. The activities implemented must always maintain a long-term perspective to achieve promoting cultural change. It is also necessary to modify consumers' habits, mainly because they are rooted in a broader structure that also needs to be modified to suit the precepts of sustainability, which Holt (2012) called an ideological block resulting from the configuration of the market.

Final considerations

This article's objective was to analyze the process of promoting sustainable consumption adopted in the Program for Reducing the Consumption of plastic bags in supermarkets in the city of Xanxerê - SC, based on the three-sector roles identified in the literature. The results demonstrate the relevance of the articulation between the actors representing the three sectors in the changes in plastic bag consumption practices in the case investigated. It reinforces the argument that changes in consumer behavior probably only occur if there are these three components: motivation/intention, capacity, and opportunity (TUKKER et al., 2008), which can be achieved from the roles analyzed in this study. Besides, it was noted that companies have to lead initiatives that promote changes in consumer behavior and the power of articulation and engagement of civil society in cultural differences.

It was possible to notice that one of the main aspects involving the success achieved in the program to reduce the consumption of plastic bags in the city of Xanxerê - SC was the construction of spaces for dialogue and negotiation between the three sectors to generate viable alternatives and promote a change with a focus on sensitizing society as to the socio-environmental benefits that would be achieved. The evidence has shown that there is no clear separation between the role of the actors and their levels, with some of the analyzed roles played in partnerships to make a difference under general conditions and that their effects interact.

There was also a concern the mobilization and social engagement obtained in the initial years of the program are maintained over time. The promotion of sustainable consumption depends on a dynamic approach that considers the changes in the contexts. It may occur through monitoring changes in society's behavior and the possible long-term effects of the actions and strategies implemented by each of the three actors. The argument is corroborated that cultural differences, such as those involving consumer practices, are only useful in the long run. Besides, the analyzes showed that the promotion of sustainable consumption applies some conflicts of interest and ideological divergences, as is the plastics industry's case in reducing the consumption of plastic bags and some consumers' resistance.

Finally, the roles analyzed in this study can serve as a basis for future study planning involving macro and structural aspects that allow significant changes in consumption patterns and levels in terms of sustainability. The subject under study lacks theoretical elements and more pragmatic objectives that make it possible to operationalize the concept and evaluate the impacts that the performance of those roles generates in the contexts where they are carried out.

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