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## Sustainability marketing strategies of companies in Mexico

Estrategia de Marketing de Sostenibilidad en las empresas de México

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### Abstract

To bridge the gap in the sustainability marketing literature, this research aims to identify sustainability marketing strategies (SMS) in companies through their sustainability reports in Mexico. The empirical analysis used data from 47 firms from different sectors listed on the Mexican Stock Exchange (MSE) and from corporations published in the Global Reporting Initiative (GRI) database. Through content analysis and cluster analysis, it was identified that enterprises are adopting SMS, addressing the stakeholders in their value chain: sourcing, production and distribution. However, most of them are at an adoption stage, focusing their efforts on implementing sustainability practices in their sourcing and production activities, leaving distribution as an area of opportunity. This research is based on companies from an emerging economy country, contributing direct data obtained from their published reports as an approach to the phenomenon of sustainability in marketing. Future studies could compare companies from developed and developing countries.

**Keywords:** Strategies; Marketing; Sustainability; Sustainability reports; Value chain.

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## Resumen

Para reducir la brecha en la literatura de marketing de sostenibilidad, la presente investigación tiene como objetivo identificar las estrategias de marketing de sostenibilidad (MS) en las empresas que reportan sus informes de sostenibilidad en México. El análisis empírico utilizó datos de 47 empresas de varios sectores que cotizan en la Bolsa Mexicana de Valores (BMV) y compañías publicadas en la base de datos del Global Reporting Initiative (GRI). Mediante el análisis de contenido y el análisis de conglomerados se identificó que las compañías, atendiendo a los stakeholders de su cadena de valor: suministro, producción y distribución, están adoptando estrategias de marketing de sostenibilidad (MS). Sin embargo, la mayoría de ellas están en una etapa de adopción, enfocando sus esfuerzos en implementar prácticas de sostenibilidad en sus actividades de suministro y producción dejando la distribución como un área de oportunidad. Esta investigación se basa en empresas de un país de economía emergente, contribuye como una aproximación al fenómeno de sostenibilidad en marketing con datos directos obtenidos de sus informes publicados. Estudios futuros podrían comparar entre empresas con países desarrollados y en desarrollo.

**Palabras Clave:** Estrategias; Marketing; Sostenibilidad; Informes de sostenibilidad; Cadena de valor.

## 1. Introduction

Sustainability marketing (SM) and related issues have received considerable attention from academics and practitioners (Belz and Schmidt-Riediger, 2010; Kumar, Rahman, and Kazmi, 2013; Rudawska, 2019; Taoketao, Feng, Song, and Nie, 2018). The first postulate was by Fuller (1999), who determined it as the process of planning, implementing, and controlling product development, pricing, promotion and distribution in such a way that it ensures the following three criteria: (1) meeting the needs of consumers; (2) ensuring the achievement of the organization's goals; and (3) the whole process must be in harmony with the ecosystem. However, some authors consider that the concept of sustainability marketing, as it is understood today, was conceptualized by Belz (2006) as building and maintaining sustainable relationships with customers, the social and natural environment.

Moreover, the emergence of the implementation of sustainability marketing-based strategies by companies has been

influenced not only by customer concerns, but also by pressure from various stakeholders (Ara, Leen, and Hassan, 2019; Belz and Schmidt-Riediger, 2010). Next, a review of the literature on sustainability marketing strategies reveals three important research gaps. First, although several studies have analysed marketing strategies, most have focused on green marketing or environmental marketing (Cheben, Lancaric, Savov, Toth, and Tluchor, 2015; Siminica, Craciun, and Dinu, 2015; Wang, Shi, Chen, and Gursoy, 2019). Therefore, there is a need for studies with a broader perspective on marketing strategies where all three dimensions of sustainability - economic, social and environmental - are included (Belz and Schmidt-Riediger, 2010; Kumar, Rahman, and Kazmi, 2016). Secondly, sustainability marketing (SM) has been studied from the perspective of its communication, customers and suppliers, but there are very few studies where all activities of the sustainability marketing value chain from suppliers to distribution are integrated (Calu, Negrei, Calu, and Viorel, 2015).

Finally, the literature reviewed on sustainability marketing strategies reveals that a large amount of research is carried out in China, India, the United States and Spain, most of it on developed countries. Therefore, it would be a great opportunity to conduct research in developing countries, such as those found in Latin America, as is the case of Mexico, where little research was found and these are only limited to the analysis of the sustainable product or only on the aspect, and their scope is descriptive (Ibarra, Medina, Valdez, and Martínez, 2015; Mayett, Popp, Sabogal, Rodríguez, Salomé, and Flores, 2018).

To address these research gaps, particularly from a company perspective, this paper aims to identify sustainability marketing strategies (SMS) in companies reporting their sustainability reports in Mexico, achieving the following research objectives: (a) to examine the practices presented in the Global Reporting Initiative (GRI) sustainability reports of companies operating in Mexico from a sustainability marketing perspective; (b) to identify a typology of SM strategies implemented by

companies in Mexico, according to their sustainability marketing practices.

This paper is structured as follows: firstly, the theoretical framework is presented marketing strategies formulated by companies, including sustainability. Secondly, the methodology used is described, as well as the selection of the sample and the analysis technique. Thirdly, the description and interpretation of the results are presented, and finally, the conclusions and future lines of research are discussed.

## 2. Theoretical framework

Since the rise of environmental, economic and social problems - such as climate change, deforestation, extinction of living beings, poverty, scarcity of natural resources - are increasingly related to business practices (Leonidou, Fotiadis, Christodoulides, Spyropoulou, and Katsikeas, 2015), companies have had to formulate strategies that allow them to make profits by consuming enough resources with minimal impact on the environment and society. Thus, in 1971 various definitions of marketing began to be envisioned whereby their strategies include social and environmental concerns, to counteract the ecological and social issues arising from marketing activities (Kumar *et al.*, 2013). Some of these concepts that were derived from these situations were social marketing, where social concerns became the main focus of marketing (Kotler and Zaltman, 1971). Later on, in addition to social issues, environmental issues became consumer concerns, thus leading to the emergence of green marketing (Fisk, 1973). Subsequently, in 1994, Polonsky postulated that ecological marketing was still insufficient and proposed green marketing as marketing that takes environmental issues into account not only in product and promotion, but in all marketing activities.

The above definitions are still being researched, but by looking at marketing that integrates environmental and social issues at the same time, they have given rise to sustainability marketing (Kumar *et al.*, 2013). Thus, for a company to compete or remain in the market, it is important that it adopts sustainability within its marketing strategies

(Taherdangkoo, Ghasemi, and Beikpour, 2017).

Therefore, the sustainability marketing strategy (SMS) is not only intended to bring added value to the customer, but also to benefit the company and, at the same time, society and the environment (Kumar, Rahman, Kazmi, and Goyal, 2012). This type of strategy provides a competitive advantage (Taherdangkoo *et al.*, 2017; Taoketao *et al.*, 2018;) and cost savings (Calu *et al.*, 2015; Fraj, Martínez, and Matute, 2011).

In practice, the implementation of an SM strategy is a real challenge for companies because it is a long-term strategy (Kumar *et al.*, 2012; Rudawska, 2019) and the success of this strategy depends on the degree of the company's commitment to sustainability. For this reason, few studies have been found where typologies related to sustainability marketing strategies are identified and proposed (Kumar *et al.*, 2016).

Peattie and Belz (2010), proposed a new marketing mix, namely the 4Cs, to include sustainability criteria in the marketing strategy. This builds on the 4Ps of traditional marketing (Product, Price, Place and Promotion) given by McCarthy, Perreault, and Quester (1997), meaning that the 4Ps become the 4Cs, with a stronger customer orientation by considering customer solutions, customer cost, convenience and communication. In other words, when sustainability is added to the strategic marketing and marketing mix, it becomes a sustainability marketing strategy (Kumar *et al.*, 2013).

On the other hand, Taherdangkoo *et al.* (2017) point out that companies use product differentiation and cost leadership strategies to develop SMS. Studies by Leonidou *et al.* (2015) showed that the implementation of product differentiation strategy with a focus on sustainability and marketing has a faster positive impact on performance than cost leadership. Because customers identify the added value of a sustainable product more quickly, as opposed to sustainable investments, such as energy savings and pollution reduction, they need more time to reflect the benefits in performance.

Furthermore, authors such as Belz and Schmidt-Riediger (2010), based on an empirical

**Table 1. Value chain practices in sustainability marketing (SM)**

Value chain activities in the SM	Authors and year
<p><b>Supply</b></p> <p>Choose suppliers according to social and environmental criteria.                      Consider environmental impacts in the supply chain.                      Perform labour practices in the supply chain.                      Undertake actions in the supply chain regarding impacts on society.</p>	<p>Izadikhah &amp; Saen (2020)                      Oniszczyk-Jastrzabek, Czermanski, &amp; Cirella (2020)                      Jnr (2019)                      Bag, Wood, Xu, Dhamija, &amp; Kayikci (2020)                      De Moura &amp; Saroli (2021).                      Huybrechts <i>et al.</i> (2017)                      Calu <i>et al.</i> (2015)</p>
<p><b>Production</b></p> <p>They address environmental impacts throughout the product’s life cycle.                      Reduction of emissions of greenhouse gases (GHG).                      Reduction in energy and water consumption.                      Minimize the impact on society.</p>	<p>Rudawska, (2019)                      Saravanan <i>et al.</i> (2018)                      Calu <i>et al.</i> (2015)                      Melovic <i>et al.</i> (2020)                      Sheth &amp; Parvatiyar (2021)</p>
<p><b>Distribution</b></p> <p>Environmental impacts of the products and services.                      Environmental impact of transportation.                      Impact of products and services on health.                      Compliance with information and labelling on products.</p>	<p>Khan <i>et al.</i> (2020)                      Validi <i>et al.</i> (2020)                      Todorovic <i>et al.</i> (2018)                      Liu <i>et al.</i> (2018), Calu <i>et al.</i> (2015)</p>

Source: Authors’ own elaboration.

study in the food industry, identified four types of sustainability marketing strategies followed by companies, with distinctive characteristics classified into: (1) performers; (2) followers; (3) indecisives; and (4) passives. ‘Performers’, companies that adopt high levels of sustainability marketing, offer products of very high social and environmental quality that cover the entire product life cycle, including activities from sourcing, production and distribution (Schmidt-Riediger, 2008). ‘Follower’ companies produce products of high social and environmental quality, but to a lesser extent than the high performers. The group of indecisive companies deals with products of low social quality and medium environmental product quality, targeting socially and environmentally conscious consumers, however, they do not have a well-defined strategy. Finally, the companies belonging to the passive group of companies deal with products of medium social and environmental quality and target consumers with no awareness of social and environmental criteria, their strategy being based on low prices and better performance.

Nevertheless, when planning and developing sustainability marketing strategies in a company, it is important to consider activities such as supply,

production and distribution within the company’s value chain (Schmidt-Riediger, 2008). Furthermore, Calu *et al.* (2015) would add the three dimensions: economic, social and environmental. Therefore, in a value chain in which all its activities are oriented toward obtaining the competitive advantage proposed by Porter (2004), when sustainability is incorporated, the companies no longer only seek economic profit, but also environmental and social success (De Moura snf Saroli, 2021). Table 1 illustrates the practices that are performed in each value chain activity in the SM.

For understanding the role of value chain activities under the SM approach in sustainability marketing strategies, the typology of Belz and Schmidt-Riediger (2010) is used as a reference. Table 2 shows how the four SM strategies: (1) performers; (2) followers; (3) indecisives and (4) passive relate to the SM value chain activities: (a) supply; (b) production; and (c) distribution.

To provide an explanation for SMS in the company, stakeholder theory suggests that company stakeholders and individuals are related or may be affected by the achievement of the firm’s goals (Freeman, 1999); this would be the case for SMS considering that

**Table 2. The Activities of the Value Chain in Sustainability Marketing Strategies (SM)**

Types of SM strategy		Performers	Followers	Indecisives	Passives
Activities of the value chain in the SM	Supply	Suppliers with very high environmental and social criteria	High environmental and social criteria with an accessible cost in the product	Low social and environmental criteria with an accessible cost in the product	They look for better costs and returns on the product
	Production	Very high social and environmental product	High social and environmental product	Medium product in environmental and low in social criteria	Medium / low sustainable product
	Distribution	Multichannels	Small channels	Specific channel	Common and large channels

Source: Elaboration based on Belz and Schmidt-Riediger (2010) and Schmidt-Riediger (2008).

during their value chain process various stakeholders, such as suppliers, distributors, employees, media, top management, trade unions, scientific communities, shareholders and regulators are involved (Belz and Schmidt-Riediger, 2010; Kumar *et al.*, 2016).

Therefore, companies that implement sustainability marketing strategies, in addition to communicating to their stakeholders that they recognize current business risks and social and environmental challenges, must be consistent with all their activities within their value chain (Rudawska, 2019). Consequently, in order to understand how sustainability marketing strategy works and how it impacts stakeholders, it is important to consider the analysis of the interaction between the company and its stakeholders (Kumar *et al.*, 2016). Hence, the corresponding research question is: What are the sustainability marketing strategies that companies implement along their value chain, engaging the concerns of their stakeholders?

Thus, faced with the question about the strategies used in the sustainability framework according to Kumar *et al.* (2016), with its approach to stakeholders typified by Belz and Schmidt-Riediger (2010), which is unique in the literature reviewed that focuses specifically on the area of sustainability marketing strategies, the following research hypothesis arises:

*H1. The companies that publish sustainability reports in Mexico follow a typology of SM throughout their value chain, attending to the concerns of their stakeholders.*

Moreover, it should be noted that each value chain activity (supply, production, distribution) is considered a fundamental part within the company for the success of the sustainability marketing strategy (Jnr, 2019) and at the same time by engaging sustainability practices within each activity, these come to encompass all three dimensions: social, environmental and economic (Rajeev, Pati, Padhi, and Govindan, 2017).

Studies such as Bortolini, Faccio, Ferrari, Gamberi, and Pilati (2016) have found that distribution activities have been crucial in sustainability because, from the time the product enters the market until it is discarded, the impact of the product on the environment and on society is greater, therefore, in the distribution activity, companies should emphasize their practices, such as recovery and recycling of product packaging, as well as their dissemination of information and labelling of products (Khan, Salah, Zimon, Ikram, Khan, and Pruncu, 2020; Validi, Bhattacharya, and Byrne 2020).

On the other hand, authors such as Liu, Xu, Shi, and Li (2018) mention that distribution is the activity with the least involvement in sustainability marketing strategy, due to the decreasing pressure from parties in this area. Therefore, faced with the research dilemma, the following hypothesis is presented:

*H2. Companies that provide sustainability reports in Mexico deploy strategic SM actions with greater efforts in distribution in response to the orientation of their stakeholders.*

### 3. Methodology

This work consisted of a quantitative study using the content analysis method and supported by the analysis of clusters or conglomerates. The focus of the study is on a two-dimensional perspective: the analysis of the value created by the firm for its stakeholders - internal and external; outside the company is the individual client, traditionally the goal of marketing under the premise that sustainability marketing arises from the concern of the final consumer. Thus, to identify sustainability marketing strategies, the value chain activities considered in the sustainability marketing strategy are first examined in the supply, production, and distribution phases (Schmidt-Riediger, 2008). Such activities can be visualized in the sustainability reports of the Global Reporting Initiative (GRI), where they communicate information related to the economic, social and environmental dimensions, and their sustainability practices implemented in each activity (Calu *et al.*, 2015; Jianu, Turlea, and Gusatu, 2015).

The Mexican Stock Exchange (MSE) is the second largest stock exchange in Latin America with a total market capitalization of more than 530 billion dollars (Mexican Stock Exchange [MSE], 2015), and generally the companies that are listed on the Stock Exchange are prone to publish their sustainability reports in the GRI. Therefore, like the authors Jianu *et al.* (2015) and Siminica *et al.* (2015), who have taken as an analysis population the companies listed on the Stock Exchange in their respective countries to identify which companies have GRI sustainability reports, this work will also analyse the companies listed on the Stock Exchange, but in Mexico. Consequently, to integrate the analysis sample, the present study began by including 148 companies listed on the MSE from all sectors. To expand the study sample, 99 companies based in Mexico were identified in the GRI database and added due to the fact that they also have sustainability reports from the GRI; thus, there was a total of 247 companies that operate in Mexico and report their sustainability reports to the GRI in 2017.

Consequently, of the 247 companies, only those that had G4-version sustainability

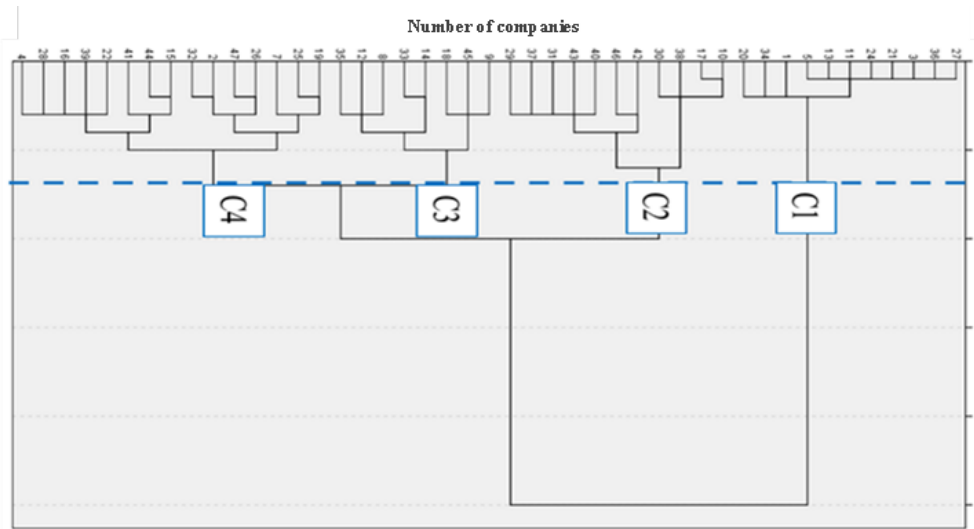
reports published in 2017 were selected. The review was carried out during 2020, and at that time the GRI sustainability after 2017 reports were in process of transitioning to the new standard version. Therefore, the information in the reports of the companies between 2018 and 2019 is incomplete or was in the process of being revised.

So, to avoid inconsistencies or misinterpretations of data or trends, only those companies that met the following criteria were selected: (1) companies that operate in Mexico; (2) companies that published the GRI version G4 sustainability reports on their official website between January 1 and December 31, 2017, which includes all the activities carried out by the company between January 1 and December 31, 2016, resulting in a sample of 47 companies in Mexico.

After selecting the sample, the GRI sustainability reports were measured by identifying the 30 environmental and social indicators proposed by Calu *et al.* (2015), following the activities that must be considered for the development of a sustainability marketing strategy in the value chain, including supply, production, and distribution. The sustainability marketing activities are identified through the content analysis technique (Shelley and Krippendorff, 1984), which provides and guarantees the objectivity of the proposed approach through dichotomous variables using the criterion 'if = 1' when they publish an indicator and 'no = 0' otherwise. It should be noted that, of the 30 indicators published in the GRI sustainability reports, 8 indicators correspond to aspects related to supply (coded as EN32, EN33, HR10, HR11, LA14, LA15, SO9 and SO10), while 9 indicators are referring to the production area (coded as EN12, EN10, EN6, EN2, EN31, EN34, EN19, LA16 and SO11) and 13 corresponding to distribution (coded as EN27, EN28, EN30, PR1, PR2, PR3, PR4, PR5, PR6, PR7, PR8, PR9 and SO7).

### 4. Results

Once the empirical data of the 47 selected companies were obtained, it was found that 61.7% are large and 38.30% are multinational. The sample was distributed in different sectors, which are: agriculture,

**Figure 1. Dendrogram for the grouping of the companies**

Note: This graph represents the grouping of companies in each of the types of sustainability marketing strategies.

Source: Authors' own elaboration.

automotive, aviation, durable consumer goods, conglomerates, construction, logistics, construction materials, media, mining, paper forest products, food products and beverages, metal products, health-care products, chemical, commercial services, financial services, telecommunications, and tourism.

To prove the research hypotheses, an analysis of sustainability marketing practices was carried out using the cluster analysis technique, a statistical method that aims to group similar objects according to their established characteristics or some similarity criterion. or dissimilarity, in such a way that within each group there is homogeneity and heterogeneity between groups (Carneiro, Malhado, Souza Júnior, Silva, Santos, Santos, and Paiva, 2007). A well-known cluster method, and perhaps the most used when the number of groups to be created is known, is the K-means, which, according to Alencar, Barroso, and Abreu (2013), consists of grouping each object at the centroid, which is the point between each closest observation, and subsequently recalculate the centroid of each group by successive tests between the new centroids and the objects until the minimum distance is reached - that is, until the centroids stabilize and the objects do not change group. In relation to the implementation of this method in marketing, it has been used by authors such

as Kumar *et al.* (2016) and Belz and Schmidt-Riediger (2010) to analyse sustainability marketing strategies. In addition, this type of analysis establishes that the number of clusters is known and based on the literature, the practices were grouped into four types of strategies identified by Belz and Schmidt-Riediger (2010): (1) performers; (2) followers; (3) indecisives; and (4) passive, based on their level of adoption of sustainability marketing practices.

The results of the K-means cluster analysis grouped the 47 companies into four clusters, where 15 companies were grouped in the first cluster, 12 companies for each of the second and third clusters, and 8 companies in the last group.

Subsequently, to complement this analysis, we proceeded to the hierarchical cluster analysis. This method is recognized for its ability to simultaneously discover multiple layers of grouping a structure whose attribution is largely due to the dendrograms that provide a graphical representation in the form of a tree that summarizes the clustering process in a cluster analysis (Kimes, Liu, Neil Hayes, and Marron, 2017). Therefore, the hierarchical cluster method allows us to intuitively study the results through the dendrogram (Figure 1), where it can be observed how the companies are related and

between their distances, they form different groups.

Then, in the dendrogram (Figure 1), the four groups are conveniently cut, and each company is observed according to the literature review and the previous K-means analysis establishes four types of strategies (performers, followers, indecisives and passives) that companies follow. In addition, ANOVA analysis was performed between the groups resulting in a significance of .036 lower than the significance of .05, which indicates that the groups are well classified.

After classifying the cluster referent each company belongs to, the next aspect to deal with is defining what type of sustainability marketing strategies companies follow according to the implementation of their practices in the areas of supply, production, and distribution. For this, the hierarchical analysis is executed again, but this time defining that there are four clusters, and requesting the mean of Ward’s method, which consists of joining the cases seeking to minimize the variance of each cluster, considering the mean of each practice of the areas - supply, production, and distribution. That is, this procedure creates homogeneous groups with similar sizes, which allows us to define which practices of each sustainability marketing (SM) activity predominate in each cluster. It should be noted that in this last analysis, two companies with atypical value were detected because these observations were numerically distant from the rest of the data and were discarded to avoid alteration in the analyses (Table 3).

**Table 3. SM Practices and Strategies that Pertain to each Cluster**

Cluster	Companies	SM Practices	Type of SM strategy
1	11	27 practices	Performers
2	11	15 practices	Indecisives
3	8	16 practices	Followers
4	15	12 practices	Passives
	45		

Source: Authors’ own elaboration.

#### 4. 1. The activities of the value chain in sustainability marketing strategy

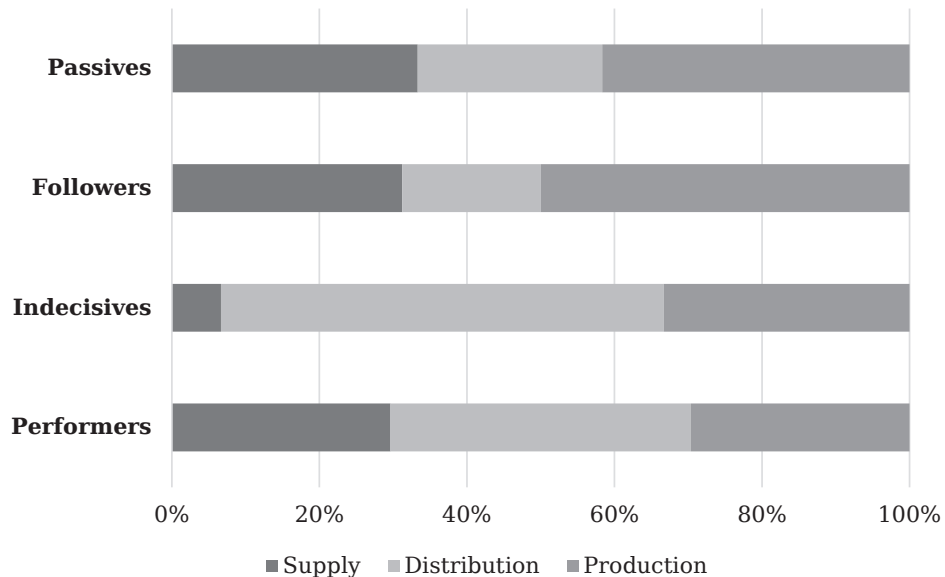
Finally, based on the sustainability marketing strategies proposed by Belz and Schmidt-Riediger (2010) according to the number of practices within each activity along the value chain: supply, production, and distribution within the framework of sustainability implemented by the companies in the study and that were classified as (1) performers (2) indecisives (3) followers and (4) passive (Table 3). Then, according to the results of the cluster analysis of the sustainability practices of each activity in the value chain, they were successfully grouped into four SM strategies given by Belz and Schmidt-Riediger (2010): performers, followers, indecisives and passives, therefore, H1 is accepted and described below.

**4.1.1. Cluster 1: Performers (11 companies, 24.4%).** This first group of companies implement 27 of the 30 sustainability marketing practices. It should be noted that this type of strategy is characterized by companies that implement high levels of sustainability marketing practices, where they offer very high-quality products, considering caring for the environment, generating less impact on society and all its stakeholders that could be affected within its value chain, which includes supply, production, and supply activities.

**4.1.2. Cluster 2: Indecisives (11 companies, 24.4%).** The cluster for the second group comprised 24.4% of the companies that pursued an indecisive type of sustainability marketing strategy, which are those companies that handle products of low social quality and average environmental quality; these try to target consumers with environmental awareness; however, they do not have a defined strategy, therefore, it was found that the companies, although they carry out 15 of the 30 SM practices, are widely dispersed in the different areas of supply, production, and distribution. For this reason, it is not yet possible to determine whether their practices are linked to a type of differentiation strategy or market niche.

**4.1.3. Cluster 3: Followers (8 companies, 17.8%).** SM strategies followed by follower companies are those that process products



**Figure 2. Value chain activities and sustainability marketing strategies**

Note: This graph represents the percentage of each of the activities of the value chain integrated in the 4 SM strategies.

Source: Authors' own elaboration.

with high social and environmental quality, but their implementation is less compared to those seeking a performer-type SM strategy. So, with 17.8% of companies that were grouped within the followers in relation to their 16 of the 30 SM practices, it was observed that the majority of these were implemented in supply and production. For this reason, it can be understood that they process their products with a high quality considering the social and environmental issues in their products, but to a lesser extent than the performer companies.

**4.1.4 Cluster 4: Passives (15 companies, 33.3%).** Finally, this group is the largest, with 33.3%, and is made up of companies that, of the 30 SM practices, implement 12 widely dispersed practices in the areas of supply, production, and distribution. These companies, although they do consider the quality, and the social and environmental attributes of the product, attach very low importance to these elements when their products; as a result, during all their activities in the value chain the implementation of sustainability practices within production, supply and distribution is a secondary priority.

Hypothesis H2 assumes that companies that report sustainability reports in Mexico deploy strategic SM actions with greater efforts in distribution due to their orientation toward the concern of their stakeholders. However, after the analysis of the results, H2 is rejected, since it can be observed (see Figure 2) that, regarding the activities of the value chain, production and supply are the areas in which companies implement most sustainability practices, not complying with the distribution as the final link in the value chain.

Finally, these results are relevant to understanding how the activities of the value chain are associated with the type of SM strategy that companies adopt, in addition to determining what role supply, production, and distribution play within it, which means that this research can serve as a source of information for those who wish to do analysis or implementation of SM strategies based on these activities.

## 5. Discussion

The study found that companies that provide sustainability reports in Mexico

follow an SM strategy, of which most of them are passive (33%) and indecisive (24%). These results coincide with other studies in India (Kumar *et al.*, 2012), which have shown that companies are working on adopting sustainability practices. By contrast, studies by Belz and Schmidt-Riediger (2010) found that companies established in Germany had as their main sustainability marketing strategy the follower (40%) and performer (27%), whose strategies consider sustainability within their SM activities as a primary element. Thus, it could be said that the country in which the SM strategy is implemented could determine its success, either according to the level of development of the country or the level of its stakeholders' demands.

Specifically, companies that follow the passive SM strategy concentrate their efforts on implementing sustainability practices in production activities (41.67%) followed by supply (33.33%). This coincides with research by Melovic, Cirovic, Backovic-Vulic, Dudic, and Gubinova (2020). Even though with this type of strategy, the observed companies seek to provide products at the lowest price, based on the results of this work, the social and ecological characteristics of the product are still important at the time of production.

On the other hand, the focus of the study is aimed at identifying sustainability strategies in marketing and the results highlight companies positioned in the SM strategy of performers, whose practices are being implemented almost entirely in each of the activities: (1) supply; (2) production; and (3) distribution (Ghosal, 2015). This could indicate that companies that implement this type of sustainability marketing strategy have defined the segment they are targeting, which are aimed at consumers who seek products developed with social and environmental criteria, which is similar to other studies that have shown that when seeking to implement sustainability strategies under the approach in marketing, companies are inclined to carry out social and environmental practices that are reflected in the company's product, called 'differentiation strategy' (Leonidou *et al.*, 2015; Taherdangkoo *et al.*, 2017).

Although companies that implement the SM follower strategy were found in the

study by Calu *et al.* (2015), and Kumar *et al.* (2016) found that with this type of strategy, companies seek to imitate those organizations that follow the SM strategy-type performers, this study found that they really understand where to focus their sustainability practices in the areas of supply and production and do not only follow the performer companies - for example, that their suppliers are certified in social and environmental issues. This coincides with Blome, Hollos and Paulraj (2014), Izadikhah and Saen (2020), who found during the elaboration of the product they seek the least impact on the environment and society (Saravanan, Mathimani, Deviram, Rajendran, and Pugazhendhi, 2018).

Regarding the relationship with the group of companies that are identified as indecisives in this research, others reach similar results (Belz and Schmidt-Riediger, 2010; Kumar *et al.*, 2016). It could be assumed that there are companies that carry out sustainability practices to satisfy external actors that influence the company, such as: government, society, consumers and competition, or environmental and social regulations (De Moura and Saroli, 2021; Huybrechts, Derden, Van den Abeele, Vander Aa, and Smets, 2017), and not really because they have a legitimately defined strategy with a focus on sustainability.

It should be noted that regardless of the SM strategy of each company, it is the production activity that has the largest percentage of implementation of sustainability practices when compared to the other activities, so in the elaboration of a product the company seeks to generate the least negative impact on the social and environmental environment through practices such as reducing CO2 emissions, reducing energy use and minimizing the use of natural resources (Jnr, 2019).

Otherwise, with respect to H2, companies report paying less attention to sustainability practices in distribution, this activity being also fundamental in sustainability problems, since within this activity companies face the challenge of recovering waste that their products produce and increasing their recycling (Khan *et al.*, 2020; Validi *et al.*, 2020).

It is important to mention that the context of this research was in a developing country, and its results are consistent with authors such as Kumar *et al.* (2016) and Taherdangkoo *et al.* (2017), whose studies were examined in developing countries. Comparatively, those studies in developed countries show the opposite results (Belz and Schmidt-Riediger, 2010; Cheben *et al.*, 2015), which leads to the conclusion that the SM strategy is more relevant in companies that are located in mostly industrialized countries.

## 6. Conclusions

This research describes SM strategies in companies with sustainability reports in Mexico. The first research objective was to examine the value chain activities published in the sustainability reports, and to provide an understanding of how the adoption of practices in each supply, production and distribution activity plays an important role in the strategy of SM. Subsequently, as the main objective of this work, with the methodology used, it was possible to interpret the information from the sustainability reports to identify the SM strategies that companies are using and it was found that effectively the companies that publishing sustainability reports in Mexico follow a strategy of SM throughout their value chain. Although the sample was homogeneous, it was demonstrated that each company applies a different strategy, with the most implemented sustainability marketing strategies being the passives (33%) and indecisives (24%) strategies, while the least implemented sustainability marketing strategy is that of the followers (18.7%).

Specifically, most of the companies integrate the passive-type SM strategy, that is, the strategy they pursue is traditional, low-priced and with better performance. This could be because stakeholders may be more concerned with economic benefits than they are with sustainability issues. It could be assumed that companies in developing countries are still in the process of adopting SM strategies, since the results obtained coincide with past studies used by companies established in developing countries. Therefore, it would be of great interest to

do a comparative study between companies that are in countries with different levels of economy. This could provide an overview of the situations or factors that drive the implementation of sustainability marketing strategies.

A limitation that has implication in the results of this work was the availability of updated sustainability reports on the GRI platform, making the scope of the research limited. However, given the relevance of the results, they expose the need for future studies on the impact of sustainability marketing strategies over the years with variables such as financial performance, image or environmental performance.

## 7. Conflict of interest

The authors declare no conflict of interest.

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