

Designing green marketing across industries: a conceptual framework and implications for consumers and transdisciplinary research

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Abstract

Understanding what marketing messages trigger sustainable consumer behavior is one of the key issues for companies to be able to design effective green marketing. The goal of this paper is to present a conceptual framework for a green marketing approach that includes product, industry, production processes, and supply chain specific considerations to be utilized in the design of green product marketing for the mass markets. Based on a literature review, we have created a conceptual framework with industry-specific aspects on the basis of unique features in seven industrial sectors that are of relevance to the personal needs of consumers from an environmental perspective, but are focusing on the product-specific aspects of the marketed products. The originality of this study lies in the proposition that green marketing should use the actual product features as a starting point and not focus only on green consumers. The greenness of a product should be an additional dimension that adds to the competitiveness of the product when compared to conventional products. Theoretically, we propose that a transdisciplinary approach that integrates sustainable supply chain management perspectives to green marketing would benefit companies designing green marketing approaches and consumers making green product choices.

1. Introduction

The development of the green consumer markets has slowed down as there is not enough understanding of the information that consumers would actually need to do green purchasing decisions (Chekima *et al.*, 2016b). In order to sell green products to the consumer masses, the focus should not always be sustainable or eco-friendly product features. Instead, companies should focus more on marketing their products to give the impression that they are satisfying consumers' basic product needs on the product level. Green products should be appealing to consumers and also help to lead sustainable lifestyles, e.g., by providing healthy nutrition, spending money wisely, and satisfying personal lifestyle needs. Consumer market segmentation is not necessarily the best approach to developing the green product markets (Luzio and Lemke, 2013). The strong focus on green consumers and various green lifestyles does not help to address consumers in the mass markets who need to also start buying more

green and sustainably produced products to spread sustainable consumption patterns successfully on a large scale as targeted, for example, in the UN Sustainable Development Goal (SDG) #12 “Ensure sustainable consumption and production patterns” (United Nations, 2016). The use of an industry-specific approach to green product marketing to consumers on mass markets without green consumer segmentation requires a new perspective in green marketing.

Research on consumer behavior and purchasing of green products has shown that, generally, only green consumers select their products based on environmental and sustainability criteria (Ottman, 2011). Primarily, only green consumers favor eco-labelling, trust expert insights, and appreciate the availability of green products in stores (Ottman, 2011). However, they can do non-green product choices when they do not have time to compare product information, when the green products are clearly more expensive, or when seeking environmental information on the products requires extra effort before the purchasing (McDonald *et al.*, 2009, Young *et al.*, 2010).

We have created a conceptual framework that presents how unique characteristics of different product categories in different industrial sectors could be used to promote more sustainable consumption and green products. The focus is on the product-specific aspects of green products that have personal value to the users and thus can have a distinct influence on the purchasing decisions of consumers. This is demonstrated especially in the food sector, where organic food is marketed as a healthy food option. Markets for organic food have grown lately, for example, in China (Liu *et al.*, 2013). The popularity and availability of Fairtrade products has also shown clear growth on the consumer markets, especially in the UK, where in addition to reasons of doing a socially responsible choice, consumers buy Fairtrade products for personal reasons (Yamoah *et al.*, 2016).

A product-specific approach to green marketing allows to present the product and highlight its features so that consumers understand how it responds to their personal needs and what use benefits there may be. Green consumer behavior segmentation (e.g. LOHAS, dark green consumers, etc.) (Ottman, 2011) is not necessarily applicable to all product categories a consumer may use, as consumers can be irrational and emotional in their product choices (Hawkins and Mothersbaugh, 2010). Thus, consumers may buy organic food but may not necessarily act as responsibly when selecting a mode of transportation or when buying fashion clothes.

This paper is structured in the following manner. First we explain the conceptual background based on our literature review. Then we present the individual aspects that have been included in the conceptual framework. The final section discusses the contribution and limitations of this work, and possible directions for future research.

2. Conceptual background

The term green marketing is used in association with marketing practices and policies that address environmental issues with the target of profiting from it by satisfying consumers' needs and company level objectives (Leonidou *et al.*, 2013, Brindley and Oxborrow, 2014). In green marketing strategies or programs companies target to achieve their strategic goals while minimizing their harmful impact on the environment. This is implemented on various levels of the marketing strategy based on marketing mixes, for example, the 4 P's: Product, Price, Place (distribution) and Promotion in a sustainable and eco-friendly way (Leonidou *et al.*, 2013).

Green marketing can be crucial in the overall sustainability development of a company and it is tightly linked to eco-design and green sourcing (Zhu *et al.*, 2005).

Consumer behavior and psychology research study pro-environmental behaviors in the purchasing, use, and disposal of products that have environmental impacts. Theoretical models commonly associated with sustainable consumer behavior refer to ethical values when explaining sustainable consumer behavior in association with environmental issues (Phipps *et al.*, 2013). Although there are various theoretical models that have also been empirically tested, they are not very reliable as consumers' perspectives and lifestyles are not necessarily stable nowadays and consumers do not always act in pro-environmental ways even though they claim to support environmental values (Devinney *et al.*, 2010, Holt, 2012).

It should be noted that the experiences consumers gain during purchasing situations vary, and these can influence consumers' values and future purchasing choices (Young *et al.*, 2010), which highlights why companies should focus on creating as positive experiences to consumers as possible, also with reference to the non-green criteria in green products and the unique features of the products they are marketing. Non-green criteria, e.g. product features, habits, and special interests of consumers, have a tendency to reduce the effectiveness of the green criteria and green marketing argumentation in the purchasing context, thus the brand, specific product features, the price, earlier product experience, reliability, appearance, design, color, or serviceability can be more important to consumers than the green criteria (Young *et al.*, 2010).

Building on green marketing literature, we propose a conceptual framework for designing green marketing for different kinds of products from different industrial sectors. We have conducted a literature review, and studied the way green marketing has been addressing consumers and how green marketing messages have been referred to in the literature. We have analyzed green marketing approaches in different industrial sectors and found that so far, research on green marketing is addressed mostly in the seven following sectors: 1) food, 2) detergents, 3) forest and wood products, 4) apparel and fashion products, 5) travel, tourism and hospitality, 6) energy, and 7) rental & remanufactured goods.

We propose that: As green products need to foremost fulfill the product requirements that have been set for conventional products by consumers (Ottman, 2011), these requirements need to be emphasized in green marketing. Similarly, information on the production processes, green/sustainable supply chain operations and industry-specific aspects also need to be scrutinized beyond the product-specific details and included in green marketing.

Below we will first present the kinds of marketing approaches that have been used to market green products in the above mentioned industrial sectors. Then we introduce more specifically the kinds of details incorporated in green marketing messages. And finally we summarize these points in our conceptual model.

2.1. Marketing approaches for green products across industrial sectors

Currently, the main barriers for sustainable consumption are considered to be the lack of information, organizational issues for implementation, and financial support (Newton and Meyer, 2013). In addition to the six strategies of sustainable marketing communication presented by Ottman (2011), we propose that more information on the industry-specific aspects of products need to be taken into account in green marketing.

When integrating sustainability factors into marketing, multiple dimensions of sustainability need to be understood (Simpson and Radford, 2014). A factual and informative approach may not always be sufficient to motivate consumers, as emotional messages can also encourage them to participate personally in achieving sustainable development goals (von Meyer-Hoefer *et al.*, 2015). When promoting green purchasing, resorting to cultural values and green advertising are the main ways to motivate consumers, and the amount of environmental knowledge is not considered to be as significant (Chekima *et al.*, 2016a). The cultural values and beliefs that consumers have are something that they adhere to in order to conform with their social network. Consumers should be reminded how they are a part of nature and thus consume sustainably (Chekima *et al.*, 2016b). When marketing green products, producers should also pay attention to the availability of products and after-sales support to make sustainable consumption a positive experience for consumers (Biswas and Roy, 2015). They should also determine whether other social or economic information would be more relevant to consumers like in the case of Fairtrade products.

Promotion of sustainable food can be done by emphasizing the positive aspects and benefits of consuming sustainable food, with a transparent view to the industrial conditions (Soler, 2012). Genetically manipulated organisms (GMO) food is not favored due to health reasons primarily, not so much due to ethical or environmental aspects, and the distrust towards GMO food is used by small farms to promote certified organic food (McCarthy *et al.*, 2016). In the case of detergents, the products and their packaging need to have relevant environmental description that motivates consumers that are easily persuaded and already highly involved in green trends. In the apparel and fashion industry, both extrinsic and intrinsic features have been associated with products – so that extrinsic features related to brand, pricing, packaging, country of origin, and intrinsic features related to style, design, color, care, and quality are highlighted in the marketing; extrinsic features are more related to the activities of manufacturers and retailers and not so much to the actual product (Jung *et al.*, 2016).

In household consumption, the current barriers for sustainable consumption are considered to be lack of information, organizational issues for implementation, and financial support (Newton and Meyer, 2013). With regards to energy consumption, in the emerging markets more effort is required to motivate consumers to actually consume in a sustainable manner (Sonnenberg *et al.*, 2014). To further develop the rental service and remanufacturing of goods, the feedback from users should be used systematically in order to develop the aspects in rental goods that appeal to green consumers (Tu *et al.*, 2013) as well as other consumers.

2.2. Green marketing messages: product specific information with reference to green/sustainable supply chain management

Green marketing messages should be product-specific, as consumers get more involved with the product category if it is presented in the marketing message (Cummins *et al.*, 2014). Producers should share more information on the environmental impact of their products during their whole life cycle. This implies the need to incorporate supply chain information since the supply chain members, from raw materials extraction to the final product delivery to the end-consumer, all have an impact on the life cycle of the product. To make environmental and sustainable information available, it is necessary to study and assess sustainability practices along the supply chain as most products and services originate from suppliers located worldwide. Consumers need to be encouraged and given the feeling that they can individually have an impact when solving environmental problems, e.g. by recycling, saving energy, and changing their consumption behavior. Communication should concentrate on promoting the

role of sustainable consumption as a means for reducing environmental impacts (Biswas and Roy, 2015).

The way companies communicate their corporate sustainability does not necessarily have an impact on consumers, because consumers are skeptical about the companies' green marketing initiatives, and thus green marketing should concentrate on providing information on the benefits of green and sustainable products (Stolz and Bautista, 2015). Green marketing of green products could be done with a focus on the product-specific aspects including additional details on what materials have been used and what are the product's environmental benefits. Product quality and concern for health and environmental issues motivate green food consumption (McCarthy *et al.*, 2016). Marketing of sustainable food consumption could concentrate on promoting and gaining the confidence of consumers that their purchasing behavior is critical for positive sustainable development globally (von Meyer-Hoefer *et al.*, 2015). In the case of forest and wood products, marketing messages could focus on, for example: Country of origin, environmental impacts (sustainable forest/plantation management, carbon footprint, portion of recycling) and material (type of wood, material composition, additives, health effects of additives, comments of the producers) (Appelhanz *et al.*, 2016, Osburg *et al.*, 2016). In the case of the apparel and fashion industry, when promoting eco-friendly products, a positive "ethical consumption attitude" can be highlighted by esthetical aspects, branding, and sustainable features of the products, as esthetical aspects and information on the greenness of the product can mediate pro-environmental beliefs of consumers (Jung *et al.*, 2016).

In the travel, tourism & hospitality sector, information on sustainable consumption activities that make the consumers' life easier and more pleasant on a hedonistic level can be more effective than factual information on environmental issues (Miao and Wei, 2016). Communicating in ways that promote positive environmental behavior can result in favorable hotel experiences, as consumers can save in their laundry costs, and the cost savings that hotel visitors gain from pro-environmental behavior can be invested in eco-friendlier services and products (Miao and Wei, 2016). The overall strategy would then be to associate environmental sustainability of the operations with the overall business sustainability (Miao and Wei, 2016).

When it comes to household consumption, cost savings resulting from higher energy efficiency of green apartments, green aspects of housing, and health related aspects could be better communicated to promote green buildings (Hu *et al.*, 2014). Also in the energy sector, the price of biofuels and availability at gas stations need to be solved properly and communicated to consumers (Van de Velde *et al.*, 2009). In the case of rental and remanufactured goods, companies should ensure that product attributes, in addition to the environmental aspects, are as good as they are for conventional products (Michaud and Llerena, 2011). Remanufactured products are considered green if the way remanufacturing benefits the environment is communicated to consumers as consumers expect that the greenness of a product is an additional attribute on top of the products' other features (Michaud and Llerena, 2011).

3. Conceptual framework

Green marketing is one of the most commonly used terms when referring to the marketing of eco-friendly products (Ottman, 2011). In green marketing, the main focus is on the greenness of products, but this may also include elements of social responsibility, e.g. references to Fairtrade programs (Ottman, 2011). When creating green marketing campaigns, there are many aspects that need to be taken into account when approaching identified markets and consumers especially on the mass markets. Often the argument in the literature is that different consumer

segments should be approached differently, and often companies do green consumer segmentation based on either socio-demographics or green lifestyles, however, the benefits of green consumer segmentation based on ethical and pro-environmental values has also been questioned (Devinney *et al.*, 2010, Holt, 2012). In order to build up the green product markets, we present a conceptual framework for basing green marketing on product-specific and industry-specific characteristics that are also relevant to non-green consumers on the mass markets.

Based on a literature review, we have formulated a conceptual framework that helps to highlight per industrial sector, what industry-specific aspects should be taken into account to generate more effective green marketing approaches and messages. The literature review was conducted according to a systemic approach defined by Booth *et al.* (2016) and Fink (2005). We conducted searches in the Web of Science and Scopus with no time limits focusing on research topics covering green marketing messages and promoting sustainable consumption, with possible references to green and sustainable supply chains.

In our conceptual model, first, the consumers' product requirements for conventional products should be fulfilled by the green products and this should also be apparent clearly in the green marketing messages. Secondly, the green marketing should present the key environmental aspects of the actual product, production processes, and supply chain operations that are of relevance to that specific industry. A transdisciplinary approach to green marketing that refers both to product and supply chain related aspects would according to our proposition benefit both companies designing green marketing approaches and consumers making green product choices.

In addition to getting product information and environmental information from the green marketing messages, consumers also use in purchasing situations information and experiences they get from other sources. These can include the actual product itself, any news or information distributed outside the company on the production processes and supply chain related matters, in addition to industry-specific aspects that include information that is relevant to any company operating in that industrial sector. Consequently, it is in the best interest of both companies and consumers that this information would be incorporated in the green marketing. In figure 1 below, the thick arrows are used to indicate messages or information flowing to consumers, and the thin arrows indicate direct and indirect impacts that the activities within the company and external industry-specific aspects have on the green marketing.

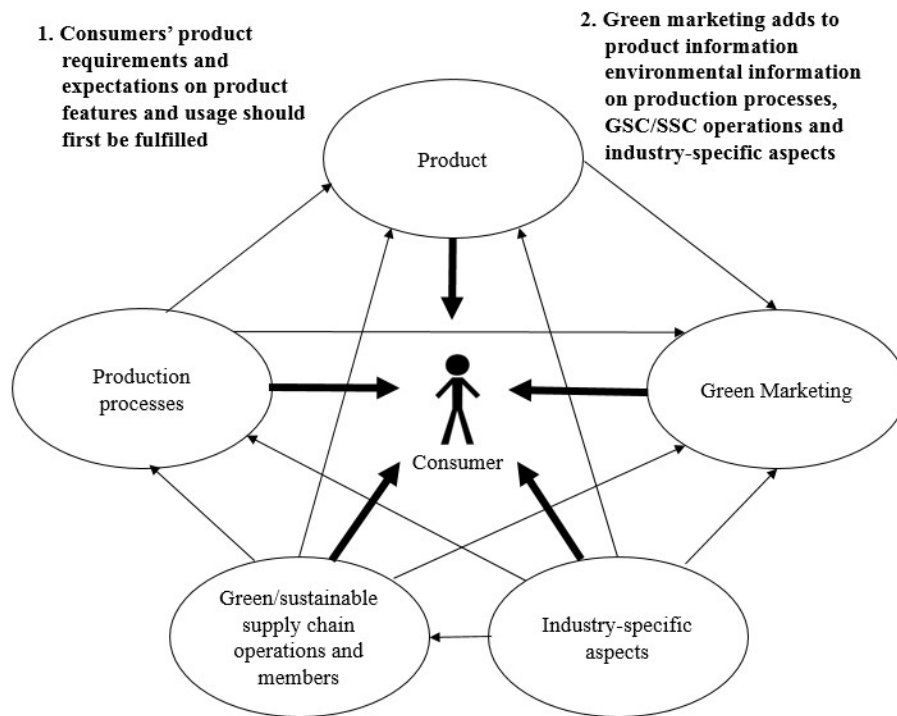


Figure 1. Conceptual framework for designing product-specific green marketing for the mass markets

Industry-specific aspects in the overall framework refer to commonalities in an industrial sector that also have an impact on the details that may be included in the green marketing messages, such as industrial standards, environmental regulations and legislation. However, the industry-specific aspects may also be something unique for an industrial sector that is dependent on the product categories of that sector. For example, in the food industry, consumers value significantly the cleanliness, avoidance of pesticides on farms, non-GMOs, and short transportation distance of food products.

Factors that impact green marketing on the product-level include: all the product features that are also available in conventional products, raw materials, cost savings (e.g. energy consumption of product), consumer safety, product quality, take-back services, reparability and customization. The details on the production processes that are of great relevance to green marketing messages are, for example, the design, cost savings (e.g. energy consumption in production), workers' safety, quality management, and environmental management. Based on a multi-stakeholder approach, Fritz et al. (2017) underline a set of 36 sustainability aspects that are relevant in the automotive and electronics sectors to share sustainability information on. Following Fritz et al. (2017), some aspects from the green/sustainable supply chain operations and members that could be relevant in green marketing are the avoidance of hazardous substances in products and production, the workers' minimum salary and health benefits, product quality and safety (of consumers and workers), energy-efficient production, the impact of operations on biodiversity, supplier selection, and community engagement. For extracting sustainability information on a specific product, companies and supply chains would require a robust information system and the development of meaningful environmental indicators for consumers, as suggested by Schöggl et al. (2016).

Details on products, production processes and green/sustainable supply chain operations to be included in green marketing can vary per industrial sector. These aspects should thus be highlighted for each product differently. Table 1 below summarizes the key aspects per industrial sector that have been associated in the literature with green marketing in that sector. These aspects have been referred to the most frequently in the reviewed literature on green marketing. In addition, we have included some specific aspects that could highlight the uniqueness of the products in green marketing messages.

Table 1. Industry-specific factors to be considered in green marketing on product level per industrial sector

Industrial sector	Industry-specific aspects
Food	<ul style="list-style-type: none"> - Healthiness - Cleanliness - Use of pesticides - GMO - Local production, - Transportation
Detergents	<ul style="list-style-type: none"> - Non-toxic - Not harmful to children nor people with allergies - Less impact to personal living environment, including swimming and drinking waters in the neighborhood
Forest/Wood Products	<ul style="list-style-type: none"> - Look and feel of wood, i.e. esthetics - Possible values associated with hand-made products and carpenters' skills - No synthetic materials - Handling with non-toxic wood preservatives - No health risk in the use of the product, can also be used safely by small children - Possibility to recycle
Apparel/Fashion	<ul style="list-style-type: none"> - Natural materials that do not irritate or cause health problems - No strong color agents or dyes used - Luxury products that are of good quality and long lasting
Travel, Tourism & Hospitality	<ul style="list-style-type: none"> - Cost savings to hotel customers as towels and bed sheets are not changed daily - Shampoos and soaps are in larger containers that are filled in - Food from local producers
Energy	<ul style="list-style-type: none"> - Green energy produced from renewable energy sources - Energy produced locally
Rental / Remanufactured Goods	<ul style="list-style-type: none"> - Good quality of products - Antique value - Cost savings

A cross analysis of the sectors indicates that in the case of the food, forest/wood, and apparel/fashion industries the two shared aspects that could be incorporated in green marketing are healthiness and toxicity/harmfulness, which is supported by the findings of Fritz et al. (2017) concerning the most relevant aspects for sustainable supply chain management. Possible toxicity/harmfulness is also an important aspect in the detergents, apparel/fashion, and energy sectors. The non-allergic aspects are highlighted in the detergents and apparel/fashion industries. The food and travel, tourism & hospitality sectors share the aspect of local production that can be referred to. The forest/wood and apparel/fashion sectors focus on esthetics and natural materials, while apparel/fashion and rental/remanufactured goods have in common the quality and durability aspects. Cost savings are highlighted in the travel, tourism & hospitality and rental/ remanufactured goods sectors. Of course, the aspects of quality and durability could be also highlighted in the case of products from the forest/wood and apparel/fashion sectors (see Table 2).

Table 2. Cross analysis of the commonalities among the industry-specific aspects

Aspects in marketing messages	Industrial sectors
Healthiness	Food, Forest/Wood products, Apparel/Fashion
Cleanliness	Food
Use of pesticides	Food
GMO	Food
Local production	Food, Travel, Tourism & Hospitality, Energy
Transportation distance	Food
Toxicity / Harmfulness	Food, Detergents, Forest/Wood products, Apparel/Fashion, Energy
Non-allergic	Detergents, Apparel/Fashion
Impact to own neighborhood	Detergents
Esthetics	Forest/Wood products; Apparel/Fashion;
Handmade / Artisanal	Forest/Wood products
Natural materials	Forest/Wood products, Apparel/Fashion
Recyclability	Forest/Wood products, Travel, Tourism & Hospitality
Quality	Apparel/Fashion; Rental / Remanufactured Goods
Durability	Apparel/Fashion; Rental / Remanufactured Goods
Cost savings	Travel, Tourism & Hospitality; Rental / Remanufactured Goods

The green marketing approach should be informative and motivational in all of the cases, and it would be ideal if feedback from consumers could be used to develop the goods as well as the

marketing messages. Extrinsic and intrinsic viewpoints need to be taken into account when promoting green products. When promoting sustainable consumption, companies should aim at creating positive consumer experiences (Pine and Gilmore, 1998).

Labelling is very helpful in the case of food products and detergents. Also in the case of forest products, labelling has been developed far. However, for the other studied sectors, labelling has not been so far used extensively, and for this reason we have left labelling out of the conceptual framework.

4. Discussion

Companies are struggling with the question how to address their customers and consumers with green marketing and how to design green marketing messages that would be effective (Chekima *et al.*, 2016b). The common belief is that by appropriate consumer segmentation green marketing can better promote sustainable consumption also among those consumers who are not truly green consumers. The segmentation of green consumers for green marketing purposes is not necessarily beneficial for companies, as this implies that there would be another group of consumers that would be deliberate and consistent in their unsustainable consumption of goods (Luzio and Lemke, 2013). It is not simple to generalize the consumer segments over several industrial sectors, as it is challenging even alone in one sector (Verain *et al.*, 2012).

The demand and consumption of green products is still very complex and inconsistent among consumers, and as segmentation on the basis of arbitrary sustainable consumption behavior is not considered worthwhile, the personal value of products to consumers should come first in green marketing. Additional environmental information on how the product choice is also reducing consumers' ecological footprint should be provided, and this information should also be useful when comparing products on the markets. This could give consumers a positive feeling that by making the product selection they can at the same time fulfill their product level needs as well as lead a more sustainable lifestyle. However, for some consumers the greenness of a product is not a positive feature, but instead it raises doubts in their minds on the possible lower quality of the product in comparison with conventional products. Thus, product features need to be highlighted similarly as for conventional products and presented first, and this should be followed by additional information on the environmental impacts of the product, and could be targeted also for those consumers that are more environmentally conscientious and responsible.

Retailers play a very important role locally and globally since they have relations with consumers and manufacturing companies and their supply chains (Styles *et al.*, 2012, Delai and Takahashi, 2013) and may have important market power to influence the market demand and offerings for green products (Styles *et al.*, 2012). This is particularly true with regard to non-green consumers whom retailers may be considered to have the duty to educate and promote green product to (Styles *et al.*, 2012). Retailers need to incorporate green policies within their core activities, train their employees so that green marketing can be transmitted to consumers at the point of sale (Delai and Takahashi, 2013 based on UNEP, 2011; Styles *et al.*, 2012). Retailers need to select suppliers based on transparent criteria that consumers can access such as certification schemes or environmental management systems (Styles *et al.*, 2012). In addition, retailers can participate in the design of more sustainable products with their supply chain partners (Delai and Takahashi, 2013). All these activities require the collaboration between supply chain partners (Xu and Gursoy, 2015) and the implementation of a robust information system (Yildiz, 2011, Xu and Gursoy, 2015, Appelhanz *et al.*, 2016, Chan *et al.*,

2016) to communicate the relevant information for building green marketing for consumers and supply chain partners (Marquardt, 2010, Delai and Takahashi, 2013).

In most companies green marketing is designed with a top-down approach without considering what consumers really want to know (Marquardt, 2010). This remains a gap as observed in our literature review. Even though there are internal drivers, like top management, who wish to contribute to sustainable development and cost reduction, and external drivers such as consumers' requirements for more transparency and market positioning, it is still the regulators that remain one of the main initiators of the design and promotion of green products for consumers. Companies invest in green product design and manufacturing to avoid risks of non-compliance (Styles et al., 2012 based on Caniato et al., 2012). In Hong Kong, for instance, it is a must for companies to inform consumers about the energy efficiency performance of their products (Chan *et al.*, 2016). Some studies show that consumers are sometimes willing to pay a premium price for sustainable products although these products may not cost much more than standard products (Styles et al., 2012). Hence, for consumers that are not sensitive to green products and rather buy based on the price, consumption patterns may drastically change if no premium were set on green products and the price of "non-green" products was higher. Such an approach should be further investigated to assess its plausibility and impact on the economic systems worldwide.

Even though globalization has had some impact on the consumer markets and there is clearly a need for a mass market approach to green marketing, there are still different cultural values and national differences among consumers worldwide that may need to be addressed locally and the conceptual framework should be adapted accordingly. However, the CSR activities of companies are only effective when they are apparent on the product level also in the non-green attributes and not presented as mere greenness of the products (Humphreys, 2014). The social aspect of consumption also needs to be addressed when formulating green marketing approaches, as sustainable consumption values and lifestyles have not been spreading among consumers as effectively as expected (Holt, 2012).

One of the limitations of this research is that there may be research published outside of the Web of Science and Scopus databases where we did our searches. Another limitation is that we did not cover exhaustively all the relevant studies relevant to this field (e.g., books), however, the target has been to select the studies that are appropriate for the purpose of this study (Booth *et al.*, 2016).

Future research should look at retailers' involvement in the green marketing campaigns of companies. Also, by improving the transparency of the companies' operations and supply chains, and including more information on the green supply chain activities of companies, green marketing messages could promote more sustainable consumption. Finally, due to specific industry requirements, further research could also address the impact of green marketing on enhancing information exchange on green/sustainable supply chain management. Green marketing may also be useful to promote green/sustainable supply chain management activities and raise awareness among supply chain partners, to enhance cooperation among partners and stimulate voluntary actions to improve the sustainability performance of supply chains.

5. Conclusion

On the basis of our literature review, we have created a conceptual framework that proposes a way to reach out to consumers on the mass markets and promote sustainable consumption. The main proposition is that green marketing targeted towards consumers should start by highlighting the actual product features that fulfill consumers' product requirements from a personal viewpoint with reference to industry-specific aspects that are also relevant from the environmental perspective. Then green marketing messages should introduce environmental information on the product, including details on production processes and green/sustainable supply chain management. The greenness of the product should be used to improve its competitiveness when compared to conventional products.

The classification of consumer segments in different industrial sectors with green products is very divergent, which could be seen in the outcome of our literature review. Our approach does not use consumer segmentation as a basis and it could be used also to address non-green consumers on the mass markets. In our view, green marketing should not focus only on green consumers. Green marketing messages should be designed so that they are targeted for both green and non-green consumers based on existing product user groups and are easily understandable to all consumers in the purchasing situation. The marketing messages should include clear, precise, authentic, and trustworthy information and be product-specific with a special reference to the industrial sector it is produced in.

To promote sustainable consumption, the variances in product-level information for different product categories within a certain industrial sector need to be taken account. Also, more cooperation and information exchange between supply chain partners is necessary to be able to extract information consumers and retailers need to make their purchasing decisions. Information exchange shall ideally be supported by a management system that enables the sharing of necessary information, from the raw material extraction until the final product launch, among all supply chain partners and up to the retailers and final consumers.

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