

Marketing Strategies in the Age of Sustainable Development: Evidence from the Food Industry

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ABSTRACT

In this paper we investigate characteristics and drivers of sustainability marketing strategies. Based on an empirical study in the food industry, we identify four sustainability marketing strategy types with distinctive characteristics (performers, followers, indecisives and passives). Consumers are one of the main drivers of sustainability marketing strategies. Depending on the sensitization of consumers to socio-ecological problems, the perceptibility of socio-ecological qualities, the individually perceived net benefits and the availability of sustainable alternatives, we argue that the typology and drivers apply to non-food industries as well. Furthermore, we find that the incorporation of social and ecological aspects into marketing strategies also depends on the market segment in which the company competes: companies that are positioned in the premium or quality segment are more inclined to take an active stance on sustainability marketing than companies that compete in the price segment. Copyright © 2009 John Wiley & Sons, Ltd and ERP Environment.

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Introduction

IN SOME MARKETS AND COMPANIES SUSTAINABILITY ISSUES HAVE BECOME HIGHLY IMPORTANT AND A COMPETITIVE FACTOR influencing marketing strategies. Examples include the energy sector (Wohlgemuth *et al.*, 1999; Salzmann, 2004), the automobile business (Brunner, 2004; Williander, 2007) and the food industry (Ionescu-Sommers, 2004; Ionescu-Sommers and Steger, 2008). The focus of this paper is on the strategic level of sustainability marketing, i.e. marketing strategies in the light of ecological and social challenges. The research questions are twofold. (1) Which kinds of sustainability marketing strategies do companies pursue? (2) What are the influencing factors for sustainability marketing strategies? Why do companies follow an active or a passive approach to strategic sustainability marketing? In the first part of the paper the theoretical framework and methodological issues of an empirical study are described. In the second part of the paper the empirical results of the study are presented and discussed.

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Theoretical Framework

Characteristics of Strategic Sustainability Marketing

Sustainability marketing can be defined as ‘building and maintaining sustainable relationships with customers, the social environment and the natural environment’ (Belz, 2008; Belz and Peattie, 2009). By creating social and environmental value, sustainability marketing tries to deliver and increase customer value. Similar to the modern marketing concept, sustainability marketing analyses customer needs and wants, develops sustainable solutions that provide superior customer value, and prices, distributes and promotes them effectively to selected target groups. The segmentation of the market, the selection of certain target groups and the positioning of products are strategic decisions of sustainability marketing – aside from the social and ecological product qualities.

Generally, geographic, demographic, psychographic and behavioural variables are used to segment consumer markets. The socio-ecological consciousness of consumers is one psychographic segmentation variable that can be used. On the basis of this criterion three different consumer groups can be differentiated (Belz, 2006, 2008). The first group has a very high level of socio-ecological consciousness and they are willing to act upon it (‘socio-ecological actives’). From their point of view, social and ecological product features play a very important role in buying decision making processes. Usually, this consumer group is relatively small, and represents the innovator consumers of sustainable products. The second group has a high level of socio-ecological consciousness (‘socio-ecological approachables’) (Schmidt-Riediger, 2008). The members of this group are often willing to pay a higher price for the perceived value added, but they are reluctant to make any compromise when it comes to the quality of the product. They represent the early adopters of sustainable products. The third group is not particularly conscious about social and ecological issues (‘socio-ecological passives’). Usually, socio-ecological product features are not perceived as value added. Thus, this group is not willing to compromise with respect to performance or price. They represent the majority adopting sustainable products.

Companies that segment the market according to the socio-ecological consciousness of consumers can target one of the three main groups identified. The targeting of one of these groups usually corresponds to the three generic competitive strategies according to Porter (1998): focus, differentiation and cost strategies. The concentration of a certain market niche is typical of focus strategies. The selected niche is determined by either a certain consumer group, a specific geographic region or a particular product assortment. In the case of strategic sustainability marketing the niche strategy focuses on the socio-ecological actives. Differentiation as the second competitive strategy means creating and marketing a product with a certain unique selling proposition. A company can differentiate itself, for example, by means of a particular technology, design, image, after-sales services, distribution network, price or product quality. This strategy requires an excellent company reputation, which is often accompanied by a smaller market share due to its exclusiveness. The consumers who buy these products are not particularly price sensitive but are highly quality/brand conscious. Companies following this strategy can demand higher prices and achieve above average earnings. However, this does not mean that costs can be ignored. Rather, it means that they simply do not form the primary strategic goal. In terms of strategic sustainability marketing the differentiation strategy targets the socio-ecological approachables. By contrast, the strategic goal of the third competitive strategy is to achieve overall cost leadership. This can be realized with the help of a number of cost-saving methods such as tight control of variable costs and overheads, minimization of research and development as well as advertising costs and taking advantage of economies of scales. Low cost strategies are compatible with ecologically orientated strategies when the emphasis is on eco-efficiency, the avoidance of waste and the creation of products that are resource efficient to produce and use. This strategy often requires a higher market share in order to gain significant cost advantages by means of bulk buying and selling in larger quantities. Companies pursuing a cost strategy usually target consumers who are price sensitive. This group matches with the socio-ecological passives.

Depending on the selected target groups, social and ecological aspects are emphasized more or less in product positioning. Basically, there are four possibilities (Meffert and Kirchgeorg, 1998).

1. Socio-ecological criteria play a dominant role in product positioning. Socio-ecological advantages are communicated as primary benefits; quality and price are secondary benefits.

2. Socio-ecological criteria play a significant role in product positioning, but they are not predominant. They are equal to quality and price.
3. Socio-ecological criteria are integral parts of the quality dimension.
4. Socio-ecological criteria do not play any role in the product positioning and communication.

The first positioning approach fits with the niche strategies of small sustainability pioneers. They primarily aim at consumer groups that are highly sensitive to socio-ecological issues and behave accordingly (socio-ecological actives). The second and third positions correspond to the differentiation strategies of medium-sized and large sustainability leaders. They target consumer groups that are sensitive to socio-ecological issues and are willing to pay a premium if the quality is right. In many consumer good markets these kinds of target group represent important, growing segments. A number of case studies show that the skilful combination of socio-ecological criteria with (classical) buying criteria such as performance, functionality, design, durability, taste and freshness to create 'motive alliances' is critical to success (Belz, 2001; Ottman *et al.*, 2006). The fourth position is consistent with overall cost leadership and price strategies. It is aimed at consumer groups that are highly price sensitive. They hardly pay any importance to socio-ecological issues and they are not willing to pay a premium (socio-ecological passives).

Determinants of Strategic Sustainability Marketing

Which external and internal factors influence sustainability marketing strategies? Why do some companies target socio-ecological active consumer groups and integrate socio-ecological criteria into their product positioning, whilst others do not? Based on stakeholder theory, we can assume that strategic decisions in sustainability marketing are influenced by different kinds of stakeholder, public exposure and industry membership.

A number of studies have identified the consumer as a key driver for environmental/sustainability management in general (e.g. Arora and Gangopadhyay, 1995; Henriques and Sadorsky, 1996; Fineman and Clarke, 1996; Ytterhus *et al.*, 1999; Videras and Alberini, 2000; Khanna and Anton, 2002; Delmas and Toffel, 2004; González-Benito and González-Benito, 2006) and for environmental/sustainability marketing in particular (Wong *et al.*, 1996; Belz, 2003, 2005). Consumers strongly influence the 'business case' for sustainability (Dyllick and Hockerts, 2002; Ionescu-Somers, 2004). They can respond to the company's action either positively by purchasing its products or negatively by boycotting its products (Henriques and Sadorsky, 1999; Porter and Kramer, 2006). Thus, we propose the following hypothesis.

H₁. The higher the perceived influence of consumers, the more likely it is that companies will pursue an active sustainability marketing strategy.

Retailers act as 'sustainability gatekeepers' between manufacturers and consumers (Ytterhus *et al.*, 1999). Due to their purchasing power they largely control whether sustainable food products are made widely available, in which ways they are promoted, and to what extent. The role of retailers as sustainability gatekeepers is ambiguous, especially in the German food market. On the one hand they discount product prices to such an extent that there is little room for sustainability considerations (Ionescu-Somers, 2004). On the other hand retailers play a decisive role in marketing sustainable food products beyond niches, i.e. 'mainstreaming' sustainable food products (Ionescu-Somers, 2004; Wirthgen, 2005). In several European countries retailers actively promote sustainable food products and launch their own sustainability retail brands (Grabner-Kräuter and Schwarz-Musch, 1999; Belz, 2004). Thus, it seems that food retailers are another key external driver for sustainability marketing. We propose the following hypothesis.

H₂. The higher the perceived influence of retailers, the more likely it is that companies will pursue an active sustainability marketing strategy.

Competitors are another driver of sustainability marketing, as shown by empirical studies in Switzerland and the US (Belz, 2003, 2005; Marshall *et al.*, 2005). In terms of offering new green products, competitive forces are not

quite as important for companies as consumer pressure (Wong *et al.*, 1996). However, as the demand for sustainable food products rises and as competitors start fulfilling the unsatisfied demand by offering more sustainable alternatives, so other food processing companies are likely to follow suit. Therefore we propose the following.

H₃. The higher the perceived influence of competitors, the more likely it is that companies will pursue an active sustainability marketing strategy.

According to literature studies and empirical research, legislators are one of the most influential external drivers for a company's social and environmental (marketing) commitment (e.g. Lawrence and Morell, 1995; Wong *et al.*, 1996; Henriques and Sadorsky, 1996; Berry and Rondinelli, 1998; Henriques and Sadorsky, 1999; Khanna and Anton, 2002; Belz, 2003; Delmas and Toffel, 2004; Belz, 2005; González-Benito and González-Benito, 2006). By setting up new product regulations, proposing voluntary standards, introducing sustainability product labels or providing information to sensitize consumers in relation to the social and environmental problems or benefits of certain products, legislators can make companies take an active stance. We propose the following.

H₄. The higher the perceived influence of legislators, the more likely it is that companies will pursue an active sustainability marketing strategy.

Besides external stakeholders such as consumers, retailers, competitors and legislators, internal stakeholders play a decisive role in sustainability marketing as well. A number of empirical research studies show that proactive environmental management greatly depends on the managers' beliefs, attitudes, perceptions and expectations (Hunt and Auster, 1990; Bansal and Roth, 2000; Flannery and May, 2000; Sharma, 2000; Banerjee, 2001; Del Brio and Junquera, 2003; Spar and La Mure, 2003; Marshall *et al.*, 2005). An empirical study in Switzerland indicated that top management forms a key driver for sustainability marketing (Belz, 2005). Berry and Rondinelli (1998) point out in their research that proactive environmental management needs a champion, who usually has a senior position within the company: 'The champion must be a person with superior managerial skills and influence within the organization and with the authority to allocate adequate resources to environmental management' (Berry and Rondinelli, 1998). Fineman and Clarke (1996) also established that an 'environmental champion contributes positively to environmental action and that this role can best be filled by a chairman or managing director'. Many small- and medium-sized companies are still owned and run by families, especially in the food industry. We assume that the empirical results regarding the influence of top management on proactive environmental management and sustainability marketing can be applied to owners as well. Thus, we propose the following hypothesis.

H₅. The higher the sustainability commitment by top management and company owners, the more likely it is that companies will pursue an active sustainability marketing strategy.

In addition, it is assumed, that the public exposure or visibility of companies has an influence on sustainability marketing (Videras and Alberini, 2000; Arora and Cason, 1996). Useful parameters for public exposure are the size of the company (Henriques and Sadorsky, 1996; Videras and Alberini, 2000), and its brand awareness (Arora and Cason, 1996; Spar and La Mure, 2003). The size of a company can be measured in terms of sales or employees. Size generally indicates the degree of public exposure and is also an indicator of the likely available corporate resources, which play a decisive role regarding the innovation and marketing of sustainable products (Henriques and Sadorsky, 1996; Kirchgeorg, 1990; González-Benito and González-Benito, 2006). The availability of financial or human resources seems to positively affect the companies' commitment in terms of environmental activities (Melnyk *et al.*, 2003) and eco-marketing activities (Belz, 2003). Besides the size of the food company, market position and brand awareness contribute to the company's public exposure (Arora and Cason, 1996; Spar and La Mure, 2003). The higher the brand awareness, the more it is known by the consumers. Yet at the same time it is also watched more closely and forms a prominent target for activists' campaigns (Elliott and Freeman, 2004). We propose the following.

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H₆. The higher the 'public exposure' (measured in terms of sales, employees and brand awareness), the more likely it is that companies will pursue an active sustainability marketing strategy.

Previous studies have shown that socio-ecological issues and stakeholder demands vary across industries (e.g. Kirchgeorg, 1990; Belz and Hugenschmidt, 1995; Fineman and Clarke 1996; Dyllick *et al.*, 1997; Banerjee, 2002; González-Benito and González-Benito, 2006). Generally, producer good industries face less ecological and social market demands than consumer good industries. In other words, consumer good industries are confronted by market demands to a comparatively great extent (Belz, 2003). In addition to this, distinctions regarding socio-ecological issues and stakes can be made between certain sub-industries as well. Schneidewind (1995), for example, shows significant differences for the Swiss chemical industry between its sub-industries of pharmaceuticals, pesticides and chemical colours with regard to their ecological impact and adaptation of specific environmental strategies. Within the food industry there seem to be significant differences between each sub-industry as well (Belz, 1995; Vastag *et al.*, 1996). Whereas the sub-industry of alcoholic beverages, for example, mainly faces issues such as underage drinking and alcohol abuse, the fish sub-industry has to deal with the fact of diminishing resources and over-fishing (Karstens and Belz, 2006). Therefore, the research study analyses different food sub-industries as possible drivers for sustainability marketing. We propose the following.

H₇. Socio-ecological issues and stakeholder demands vary across sub-industries. Thus, the sub-industry has an impact on strategic sustainability marketing.

Figure 1 depicts the theoretical framework of the empirical study. Sustainability marketing is described by five variables on the strategic level (characteristics). The intensity and type of strategic sustainability marketing are mainly explained by the influence of selected stakeholders, public exposure and sub-industry membership (drivers).

Research Methodology

To investigate the characteristics and drivers of strategic sustainability marketing an empirical study was conducted in the German food market in January 2007 (Schmidt-Riediger, 2008). Germany is one of the largest food markets

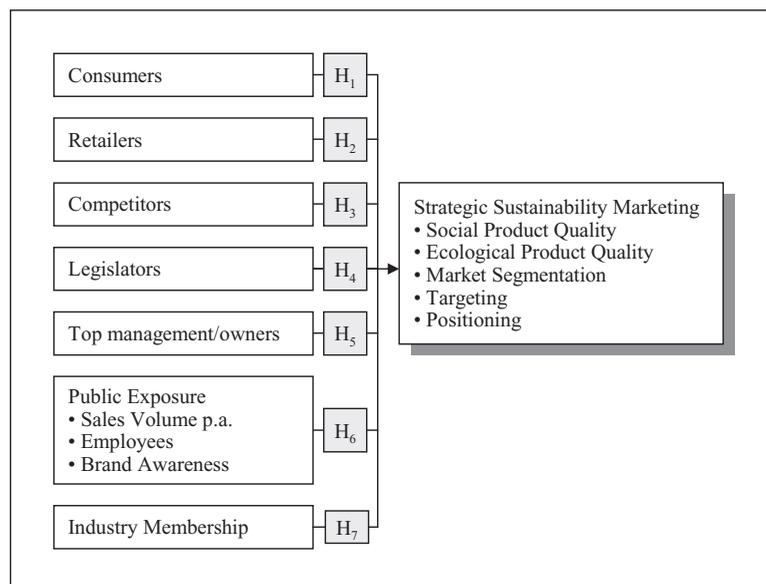


Figure 1: Theoretical Framework

in Europe (CIAA, 2006). It is characterized by market polarization, i.e. the mid-tier segment erodes, whereas the price segment and the quality segment gain market shares. Due to its highly concentrated nature, large retail chains have a dominant role in the food supply chain: in 2006 the five largest retail groups held a market share over 70%. Despite fierce price competition, ecological and social issues have become quite important in the German food market since 2003, especially in the high quality end of the market.

The empirical data of the study was collected in January 2007. Altogether 3584 food processing companies were contacted via email and asked to participate in the online survey 'Success factors in the food industry: the case of value food products'.¹ Questions were included regarding the integration of social-ecological aspects into food products along the whole lifecycle. The answer categories included primary production (i.e. agriculture, processing/production, transportation, consumption and packaging/recycling), and asked respondents to describe the integration of social-ecological issues by applying a five-point Likert scale (ranging from 'to a very high extent' to 'to a very low extent'). With respect to strategic decisions in sustainability marketing we asked for the relevance of socio-ecological aspects in positioning (dominant/equal/flanking), the segmentation of the market (niche/selected market segments/mass market) and the primary target groups (consumers with a high/certain/low level of socio-ecological consciousness).² Moreover, we also asked for the influence of selected stakeholders by adopting a five-point Likert scale in the answering categories ranging from 'a very high influence' to 'a very low influence'. The online survey was completed by 384 respondents, mostly managers or owners of the companies (return quota: 10.71%). The sample is representative in terms of size (measured in terms of annual sales volume). The empirical data was analysed by means of SPSS 14, applying descriptive and analytical statistics.

Empirical Results

Characteristics and Types of Strategic Sustainability Marketing

Five dimensions of strategic sustainability marketing are (1) ecological product quality, (2) social product quality, (3) market segmentation, (4) targeting and (5) positioning. The empirical results show that on average 40% of the food companies incorporate ecological or social aspects into their products to a 'high degree'. The focus of socio-ecological activities is mostly on the in-company level, i.e. processing, followed by agriculture on the upstream side, and packaging/recycling on the downstream side. Most food companies are active in niches (41%) or selected market segments (45%). A small number of food companies operate in mass markets (14%). The predominant orientation towards niches and segments can be explained by the market structure and the high number of small and medium sized companies, which have limited financial and human resources to cover the whole market. An equal number of companies targets either socio-ecological active or socio-ecological passive consumer groups (23% each). The majority of companies choose to target the socio-ecological approachables (54%). In keeping with this, most companies integrate socio-ecological criteria into the overall product quality, i.e. adopt a flanking or equal positioning. A hierarchical cluster analysis based on the five variables identifies four different types of strategic sustainability marketing in the German food sector.³

¹To ensure content validity, the questionnaire was pre-tested with five selected food processing companies from various different sub-industries. Where necessary the questions and answer categories were revised.

To prevent a non-response bias we deliberately avoided the term 'sustainability marketing' in the title of the online survey. We assumed that the concept of sustainability marketing is not well known in the corporate community yet.

²We also asked five questions regarding the sustainability marketing mix (price, distribution and communication), which is not, however, the focus of the present article.

³To test the discriminatory power of the cluster analysis, we carried out a discriminant analysis. The classification matrix of the four cluster shows that 95% of the originally grouped cases are correctly classified. The Wilks lambda statistic shows that all five strategic aspects divide the four clusters significantly ($\alpha = 0.000^{***}$). Additionally, all three discriminant functions contribute significantly ($\alpha = 0.000^{***}$) to the division of the clusters. These statistical tests indicate the quality of the four cluster solution.

Cluster 1: Performers (n = 84)

The first cluster, encompassing 27% of those surveyed, is characterized by food processing companies that offer products of a very high social and ecological quality addressing the whole product lifecycle. They sell their products in market niches and mainly aim at the socio-ecological active consumer group. Correspondingly, social and ecological criteria play a dominant role in their product positioning. They charge premium prices and market the products through a high number of relatively small distribution channels. They are very active in communication, using a wide range of instruments to signal superior socio-ecological product quality and to build up trust and credibility. A high percentage of small companies belong to the group of strategic sustainability marketing performers.

Cluster 2: Followers (n = 122)

40% of the questioned food processing companies belong to the second cluster. They process food products with a high socio-ecological product quality but to a somewhat lesser extent than the performers. They offer these value added food products in selected market segments to consumers that can be socio-ecologically activated. Compared with price and performance their socio-ecological product quality is positioned equally or flanking. They charge higher prices for their sustainable food products, distribute them through a fairly high number of relatively small distribution channels and also stress motive alliances in their communication. A high percentage of medium-sized companies belong to the group of the strategic sustainability marketing followers.

Cluster 3: Indecisives (n = 71)

Comprising 23% of the questioned food processing companies, Cluster 3 forms the third largest group. The food companies in this cluster are marked by a low social product quality and a medium ecological product quality. These two product qualities are not used as a particular positioning attribute compared with price and performance. However, they do target consumers with a certain socio-ecological consciousness in market niches. The food processing companies of this third cluster do not seem to pursue a distinct strategy. Neither a differentiation strategy nor a cost strategy can be clearly detected. In a way these food processing companies appear to be 'stuck in the middle'.

Cluster 4: Passives (n = 31)

10% of the participating food processing companies belong to the fourth cluster. The smallest of all four clusters consists of companies that process food products with a medium to low socio-ecological quality. In terms of positioning, this product quality only plays a subsidiary role compared with price and performance. These food companies target consumers with no particular socio-ecological consciousness within the mass market. They charge lower prices and distribute their products via conventional food retail chains including discounters. Mostly, larger companies belong the group of the strategic sustainability marketing passives.

Determinants of Sustainability Marketing Strategies

To explain the different types of sustainability marketing strategy adopted by food processing companies, we analysed the influence of external and internal factors respectively as proposed above. To analyse the influence of each factor (consumers, retailers, competitors, legislators, top management/company owners, public exposure and industry membership) we carried out bivariate analysis, i.e. means and correlation coefficients between influencing factors and the strategic sustainability marketing types (Table 1).

Consumers strongly support the business case of corporate sustainability and are hypothesized to have a significant influence on different sustainability marketing strategies. 82% of the performers state that this driver influences their sustainability marketing orientation to a high extent. 60% of the followers say so, too. The indecises and the passives also see the consumers as a main driver – however, to a much lesser extent: 45% of these groups maintain that consumers have a high influence on their sustainability marketing strategies. Looking at the means and the correlation coefficients between this driver and the different types, significant relationships can be

Influence factors	Performers		Followers		Indecisives		Passives	
	<i>x</i>	<i>r</i>	<i>x</i>	<i>r</i>	<i>x</i>	<i>r</i>	<i>x</i>	<i>r</i>
Consumers	2.77	0.25**	2.55	0.01	2.31	-0.19**	2.29	-0.12*
Retailers	2.14	0.04	2.20	0.11	1.90	-0.15**	2.03	-0.03
Competitors	1.83	0.01	1.89	0.08	1.71	-0.09	1.9	-0.01
Legislators	2.00	0.12*	1.95	0.09	1.57	-0.22**	1.82	-0.01
Top management	2.62	0.08	2.64	0.07	2.53	-0.04	2.29	-0.17**
Owners	2.51	0.11	2.42	0.02	2.29	-0.06	2.18	-0.12*
Sales volume p.a. 1, <€2 m; 4, ≥€50 m)	1.88	-0.11*	1.98	-0.06	2.22	0.07	2.52	0.15**
No. of employees 1, <10; 4, ≥250)	1.86	-0.17**	2.20	0.06	2.19	0.02	2.55	0.14*
Brand awareness 1, 25%; 4, ≥75%)	2.05	0.05	1.98	0.04	1.82	-0.09	2.06	-0.01

Table 1. Means and correlation coefficients between influencing factors and strategic sustainability marketing types (for all stakeholders the following coding is used: 1, low extent; 3, high extent)

observed (Table 1). The Spearman rank-correlation test states a positive correlation between consumer influence and the performers ($r = 0.25^{**}$) on the one hand and a negative correlation between consumer pressure and indecisives ($r = -0.19^{**}$) as well as passives ($r = -0.12^*$) on the other. This means that the group of performers perceives significantly higher pressure and demand from consumers while the two clusters of indecisives and passives perceive significantly less influence from consumers in terms of commitment to sustainability marketing.⁴ In conclusion, we tentatively accept the first hypothesis H₁.

Retailers act as sustainability gatekeepers between processing companies and consumers, especially in the food market. In comparison with consumers, however, the retailer seems to be a lesser source of pressure. The highest influence is observed by performers (42%) and followers (40%). Looking at the means and the correlation coefficients between the retailers and the strategic sustainability marketing types, significant relationships can be observed as well (Table 1). The indecisives correlate negatively with the perceived retailer influence ($r = -0.15^{**}$), which implies that they do not seem to perceive much influence from the retailers in terms of sustainability marketing commitment.⁵ In conclusion, we tentatively accept hypothesis H₂.

Competitors are another market force that is hypothesized to influence sustainability marketing orientation. Generally, it can be observed that the influence emanating from competitors is much lower than the influence from the previous two market drivers. A minority of companies state that they feel highly pressured by competitors (15%). About half of the companies say that they are influenced to a certain extent (52%). What is interesting about this driver is that followers (19%) feel the most pressure from their competitors – which might be the performers in this case. However, analysing the means and the correlation coefficients between the competitors and the strategy sustainability marketing types, no significant relationships are detected. Thus, we reject the third hypothesis H₃.

Legislation is a political force that is assumed to influence strategic sustainability marketing orientation. Similar to competitors, the perceived pressure from legislators is much lower than the influence of consumers and retailers: on average, just one-fifth of the companies feel a strong influence from legislation. However, there are some differences between the strategic sustainability marketing groups: in the case of the performers (25%) and the

⁴ Similar results are also found by means of the Mann–Whitney *U*-test. The consumers' pressure is observed differently by the four different types. The performers differ significantly from all three other strategy types, i.e. the followers ($\alpha = 0.002^{**}$), the indecisives ($\alpha = 0.000^{***}$) and the passives ($\alpha = 0.000^{***}$). Moreover, the followers differ noticeably from the indecisives with regard to the consumers' influence ($\alpha = 0.018^*$).

⁵ This result is supported by a Mann–Whitney *U*-test. Regarding the perceived pressure from the retailer, distinctions can be made between the indecisives on the one hand and the performers ($\alpha = 0.045^*$) and followers ($\alpha = 0.005^{**}$) on the other hand.

followers (29%) the percentage of companies is slightly higher; in the case of the indecisives it is considerably lower (6%). The means and the correlation coefficients between the legislators and the clusters showed two statistically significant relationships (Table 1): the performers correlate positively with the perceived pressure from the legislators ($r = 0.12^*$). In contrast, the indecisives correlate negatively with the perceived influence by the legislators ($r = -0.22^{**}$). Consequently, they do not feel particularly pressured by the legislators to take up sustainability marketing.⁶ Due to these findings, hypothesis H₄ can be tentatively accepted.

Top management and owners are internal stakeholders, which are assumed to play a key role in the adoption of active sustainability marketing strategies. This assumption is supported by the empirical data: overall, 66% (56%) of the companies state that they perceive a strong influence from top management (owners). With respect to internal stakeholders there is a significant difference between performers and followers on the one hand and passives on the other: 73% of the performers and 69% of the followers perceive top management as the most influential driver towards an active sustainability marketing approach. The numbers for owners are similar, but slightly lower. In contrast, just 39% (32%) of the passives maintain that they are highly pressured by top management (owners) in relation to sustainability marketing. An assessment of the means and the correlation coefficients shows that the passives perceive significantly less pressure than the other two groups regarding top management ($r = -0.17^{**}$) and company owners ($r = -0.12^*$).⁷ Therefore, hypothesis H₅ can be tentatively accepted.

Furthermore it is proposed that the factor 'public exposure' influences sustainability marketing strategies. Generally, the German food industry is dominated by small and medium-sized companies. Many of them are still family owned. This structure is also reflected in the sample: About 70% are small-sized companies as defined by the European Commission (2003); i.e., their annual sales volume is less than €10 million and they have less than 50 employees. 20% of the sample are medium-sized companies and just 10% are large companies with more than €50 million sales p.a. and more than 250 employees. The means and the correlation coefficients reveal that there is an above-average percentage of small-sized companies in the group of performers, i.e. food processing companies with a lower sales volume p.a. ($r = -0.11^*$) and fewer employees ($r = -0.17^*$). In contrast, the passives tend to be larger companies with a higher sales volume p.a. ($r = 0.15^{**}$) and more employees ($r = 0.14^*$).⁸ Thus, hypothesis H₆ is rejected. In the case of the German food industry the relationship between public exposure (using sales volume and employees as proxies) seems to be the other way round: The smaller a food processing company, the more likely it is that that an active sustainability marketing strategy is pursued by this company. When using brand awareness as a proxy of public exposure, no significant correlation can be found in relation to the four clusters.⁹

Finally, the industry membership is hypothesized to influence sustainability marketing strategies. The distribution of the sustainability marketing strategy types differs noticeably by food sub-industries. The performers, for example, are over-represented within coffee/tea (63%), fish (43%), fruit/vegetables (39%) and dairy/baby food (38%). The followers appear comparatively often within chocolate/confectionery (50%), bread/pastry/noodles (48%), meat (47%), non-alcoholic beverages (44%) and dairy/baby (43%). However, except for the two sub-industries coffee/tea and dairy/baby food the differences are not statistically significant. This is why hypothesis H₇ cannot be accepted.

To examine the relative importance of each factor on the type of strategic sustainability marketing we conducted a binary logistic regression analysis. The dependent variable γ is the strategic sustainability marketing type. To obtain a dichotomous distinction performers and followers are grouped together forming the 'sustainability marketing actives' (= code 1) as well as indecisives and passives forming the 'sustainability marketing non-actives

⁶ In addition, the Mann-Whitney U -test indicates significant differences between the strategy types and their perceived pressure by legislators. The performers and indecisives differ significantly regarding legislators ($\alpha = 0.000^{***}$). Similar findings are made regarding the divergences between followers and indecisives. They also significantly vary in terms of perceived pressure from legislators ($\alpha = 0.002^{**}$).

⁷ The additional Mann-Whitney U -test supports these findings. In terms of the perceived pressure from the top management ($\alpha = 0.005^{**}$) and the company's owner ($\alpha = 0.013^*$), it shows significant differences between the performers and passives. Moreover, there are significant differences between the followers and passives regarding the top management ($\alpha = 0.004^{**}$).

⁸ A Mann-Whitney U -test confirms these correlations and identifies a number of significant differences between the strategic sustainability marketing types and the sales volume p.a. and the number of employees respectively. Significant differences in terms of sales volume p.a. can be detected between the performers and the indecisives ($\alpha = 0.055^*$) and the passives ($\alpha = 0.003^{**}$) as well as between the followers and passives ($\alpha = 0.011^*$). Regarding the number of employees, the performers differ significantly from all the other strategy types: followers ($\alpha = 0.012^*$), indecisives ($\alpha = 0.045^*$) and passives ($\alpha = 0.001^{***}$).

⁹ The Mann-Whitney U -test does not reveal any differences between brand awareness and the four types, either.

Independent variables	Regression coefficient β_j	Significance α
Consumer	0.407	0.002**
Retailer	0.140	0.246
Competitor	-0.181	0.192
Legislator	0.318	0.007**
Management	0.001	0.991
Brand awareness	0.188	0.227
Sales volume	-0.617	0.001**
Dairy/baby food	1.711	0.014**
Coffee/tea	0.174	0.851
Meat	0.815	0.108
Fish	1.419	0.241
Fruits/vegetables	0.826	0.254
Chocolate/confectionery	0.029	0.969
Bread/pastry/noodles	0.132	0.824
Non alcoholic beverages	0.696	0.267
Other sub-industries	0.596	0.240
Constant	-1.650	0.033

Table 2. Determinants of strategic sustainability marketing

(= code 0). The independent variables x include five stakeholders, two proxies for public exposure and eight sub-industries.¹⁰ Table 2 shows the results of the binary logistic regression analysis. The following four independent variables turn out to be significant ($\alpha \leq 0.05^*$): consumers, legislators, sales volume p.a. and the sub-industry dairy/baby food.¹¹ In the next section the empirical results are interpreted and discussed in further detail.

Discussion

The bi- and multivariate analyses show that the two groups of the performers and followers perceive a higher pressure by external and internal stakeholders (consumers, retailers, legislators, top management and owners) than the two groups of the indecisives and passives. According to the results, consumers and top management have the highest influence on strategic decisions in sustainability marketing. Other empirical studies on eco-/sustainability marketing come to similar results: Belz (2003) evaluated the impact of different stakeholders on the ecological marketing mix, i.e. the operational level of eco-marketing. That study was conducted in 10 European countries and 12 different industries. The most pressure emanated from (1) national legislators, (2) management and (3) consumers (Belz, 2003). The different ranking of stakeholders can be explained by the industries considered in the study: investment good companies such as chemistry, metal and machinery felt more pressure by environmental legislators and authorities than consumer good companies do. In addition to this, we have to consider that the European study was conducted in 1997/98 when shareholder value ruled and the internet euphoria started.

¹⁰ Prior to the binary logistic regression analysis, all independent variables are tested for multicollinearity. Significantly high collinearities are found between sales volume p.a. and number of employees ($r = 0.817^{**}$) on the one hand, and between the two internal stakeholders top management and owners ($r = 0.652^{**}$) on the other. Since the sample is representative in terms of sales volume p.a., the number of employees is not considered in the binary logistic regression analysis. Regarding the internal stakeholders we decided to omit the owners. Most small food processing companies are still family owned and family run. In these cases the owners build the top management, which is considered in the binary logistic regression analysis.

¹¹ By means of the binary logistic regression and the calculated regression coefficients β_j 73% of all cases can be classified correctly. This hit ratio is beyond the maximal random distribution probability of 67%. It can be interpreted as an indicator of the soundness of the model. In addition, the pseudo-R²-statistic as a goodness-of-fit criterion also lies in an acceptable range (Nagelkerke-R² = 0.244).

In this period of time there was a 'backlash of eco-marketing' (Crane, 2000) and consumer demand for ecological products faltered. In another empirical survey conducted in Switzerland 2003, the surveyed companies stated that the main drivers for sustainability marketing are (1) consumers and (2) management, followed by (3) general public, (4) legislator and (5) competitors (Belz, 2005). In recent studies conducted in Germany and Spain, consumers and management were the key drivers for corporate sustainability activities (Hahn and Scheermesser, 2006; Buil-Carrasco *et al.*, 2008). Despite small disparities, the results of these studies largely support the findings of our investigation. However, as compared with the other studies, retailers play an important role in the food industry. They act as sustainability gatekeepers and diffusion agents respectively. From a strategic perspective this implies both chances and risks for food processing companies: on the one hand the listing and promotion of organic food products by large food retail chains opens up new opportunities for food processing companies, especially for performers and partly also followers. These two groups of food processing companies possess strong brands, which are well known by the consumer and which offer some kind of value added in terms of social and ecological criteria. Thus, they are likely to profit from the engagement of large food retail chains. On other hand, leading food retail chains such as Edeka and Rewe create their own organic food brands, which become part of their retail assortment (e.g. Edeka Bio Wertkost and Rewe Bio). Even the two leading 'hard' discounters Aldi and Lidl have introduced their own organic food brands (e.g. bio and Bioness). Given that shelf space for such products is likely to be restricted, the new ecological retail brands will substitute for other producer brands, which are less known by consumers and not clearly positioned in the market. This may be the reason why there is a negative correlation between retailers and the group of indecisives (Table 1).

Ever since large food retailers have started the promotion of organic food products and partly also fair trade products, these segments have grown significantly. It is too early to talk about a 'sustainability mainstreaming' in the German food market. However, there are clear signs that sustainability is moving 'beyond the niche': the group of the performers mainly consists of sustainability pioneers, who are forerunners of the organic food movement, and who served the organic food niche during the 1980s and 1990s, and aimed at the socio-ecological active consumers. In the past, they were quite skeptical towards any kind of marketing approach. However, ever since the turn of the century, there has been quite some change in this 'alternative' niche. The sustainability pioneers are starting to embrace modern marketing concepts, segmenting the market, selecting consumer groups and aiming at both socio-ecological actives and socio-ecological approachables. Take, for instance, Rapunzel: founded in 1974, the company is one of the sustainability pioneers, well established in the 'alternative' niche. It offers a variety of organic and fair trade food products under its brand 'Rapunzel' in more than 25 countries all over the world. During the last couple of years Rapunzel modernized its marketing approach and successfully launched a second brand called 'Bio Gourmet', which is mainly aimed at the socio-ecological approachables and distributed by large conventional food retail chains. As a consequence to the entry of new competitors and due to rising consumer demand, the group of the followers, consisting of established food processing companies with well known brands, started picking up sustainability marketing. Ritter Sport is an example of a family-owned and family-run business, which has a long commitment to corporate social responsibility. Since 2005, Ritter Sport has been active in sustainability marketing. In 2005, they started a cause related marketing campaign helping school children in Africa. Moreover, in 2008, Ritter Sport introduced organic chocolates, which also fulfill the criteria of fair trade. It is noticeable that the company did not introduce a new brand, but integrated the organic and fair trade product qualities in their existing brand assortment 'Ritter Sport', which is well known by consumers and which is clearly positioned in the quality segment. These developments indicate that social and ecological criteria are becoming success factors for (sustainability) marketing in the quality segment of the German food market.

Depending on the market segments, the stakeholder influence within an industry seems to be quite different. Companies positioned in the quality segment perceive more pressure from stakeholders, especially consumers. Due to their positioning and consumer demand, they are more inclined to adopt sustainability marketing strategies. By contrast, companies positioned in the mid-tier segment and the low-price segment perceive less pressure by stakeholders. Hence, they are less inclined to take up sustainability marketing strategies. A systematic analysis of the characteristics of the four clusters reveals that there is a 'fit' between sustainability marketing orientation and market structure (Figure 2): the first cluster of the performers with very high socio-ecological product quality, premium prices and selective distribution is positioned at the top of the quality segment. The second cluster of the followers with high socio-ecological product quality, higher but not premium prices and the targeting of the

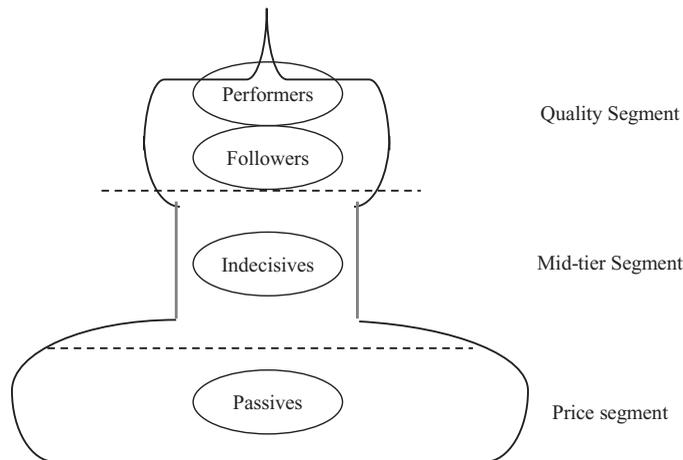


Figure 2: Fit between Strategic Sustainability Marketing Clusters and Market Structure

socio-ecological approachables belongs in the quality segment. The third cluster of the indecisives is stuck in the middle. They do not seem to follow a distinct competitive strategy and could be classified to the mid-tier segment. The fourth cluster of the passives follows a distinct low-cost strategy. They aim at the large segment of price-sensitive food consumers, which are not particularly interested in social and ecological product qualities.

The documented inverse relationship between size of the company and strategic sustainability marketing is supported by a recent study in Germany. Hahn and Scheermesser (2006) show that ‘sustainability leaders’ – a group that can be compared to the performers – are characterized by small and medium-sized companies (SMEs). They explain their findings by the fact that in the case of SMEs the personal motives of managers might have more direct influence on the strategic direction of the company. In larger companies there are a number of groups influencing competitive and marketing strategies. Furthermore, there is often a struggle for power in large companies, lessening the direct influence of individuals on strategic decisions. In addition to this, the high percentage of small companies in the group of performers can be explained by the emergence and evolution of the organic and fair trade sector during the last three decades (Belz, 2004): in the 1970s this sector was built up as an alternative to the existing paradigm of rationalization and commercialization in agriculture, food processing and distribution. The organic food movement believed in small scale, tight networks and regional economics. Only small producers, processors and distributors belonged to this alternative kind of network and niche. Some of these sustainability pioneers grew with the market and turned into medium-sized companies. Due to the history of the organic movement and according to the results of the study at hand, public exposure measured in terms of sales volume p.a. and number of employees is a factor to explain the different types of strategic sustainability marketing. As sustainability issues move beyond niches and become more mainstream in the German food market, we assume that size will become less important as an explanatory factor for sustainability marketing of food processing companies.

Interestingly, the membership of a sub-industry is not as important as the influence of selected stakeholders, the positioning in the market and company size on the type of strategic sustainability marketing. Except for coffee/tea and dairy/baby food there are no significant correlations between sub-industry membership and the four strategic sustainability marketing clusters. During the 1970s a small niche emerged for fair trade coffee, but due to the poor quality and taste, the very high prices and the selective distribution it remained limited to a small number of consumers. As sustainability performers embrace marketing approaches and reach out for new target groups they put pressure on sustainability followers. Take, for example, Cafédirect in the British food market, which successfully repositioned fair trade to a high quality gourmet brand during the 1990s (Hockerts, 2003). By 2007 it had become the UKs fifth biggest coffee brand and encouraged market leaders such as Nestle and Kraft to launch their own ethical brands. As regards dairy products, there has been a high demand for organic quality due to two

main reasons: First, there is a relatively low organic dairy price premium, and second, they are available in most supermarkets. Due to economies of scale the supply, production and distribution of organic dairy products became more efficient, leading to lower costs and prices. Baby food is a special case: many young parents want 'the best for their babies', choosing organic food which is supposed to be healthier. Since the 1980s the European market leader Hipp has been offering baby food that is from organic farming and residual free. The owner personally guarantees these product qualities. Thus, Hipp builds up trust and transforms credence qualities into quasi-search qualities (Karstens and Belz, 2006).

Generalization

Can we generalize from these empirical results? Do the findings apply to other consumer good industries and markets as well? If so, to what extent can we make generalizations? Not surprisingly, consumers form one of the key drivers for marketing strategies in the context of sustainable development. This finding is consistent with a number of studies conducted in other industries and countries (Belz, 2003, 2005; Buil-Carrasco *et al.*, 2008; Hahn and Scheermesser, 2006). This is why we would argue that the generalization of our results largely depends on the following four factors regarding consumers (see also Meffert and Kirchgeorg, 1998).

- Sensitization to socio-ecological problems. Are consumers sensitized for socio-ecological problems in connection with the relevant products?
- Perceptibility of socio-ecological qualities. Are the social and ecological qualities of the product perceptible to consumers? Can the social and ecological aspects be inspected prior to the purchase or experienced after the purchase of the product? Or are the social and ecological aspects credence qualities, in which case consumers have to trust the producer or third party organizations?
- Individually perceived net benefits. What are the individually perceived benefits and costs of sustainable products and services as compared with competing offerings?
- Sustainable alternatives. Are sustainable alternatives widely available in the market or do consumers have to make an extra effort to obtain and use them? Do consumers have the choice between conventional and sustainable products and services?

Furthermore, the legal situation, the market structure and competition all play a role. In the food area these factors drive sustainability marketing: due to food scandals and wide coverage in mass media, consumers are highly sensitized to the social and ecological problems of industrialized agriculture and mass production. The social and ecological qualities of fair trade and organic food products cannot be controlled by consumers directly, but strict regulations and credible labelling transform the credence qualities into so-called 'quasi-search qualities' (Karstens and Belz, 2006). The association with health benefits and the wide availability has made sustainable food products one of the most important growth segments in Western European and North American markets since 2000.

Similar to many food products, the production, processing and transportation of textiles takes place in global supply chains. Since the place of production is largely decoupled from the place of consumption, and since there is not so much coverage in the media, consumers are less sensitized to socio-ecological problems regarding textiles. Many may be aware of social problems in 'sweatshops', but few will know about the intense water consumption in the phase of production and the water pollution in the dyeing process. Similar to food products, the socio-ecological qualities of clothes and shoes can hardly be inspected or experienced. They are part of the process and hidden in 'the world behind the product'. The most widely used label in the textile industry is 'Eco-Tex 100'. It guarantees consumers that the tested products are free of harmful substances such as allergenic or carcinogenic dyes. Thus, it conveys a direct consumer benefit. Other aspects are of less importance in the textile industry and sustainable product alternatives are more difficult to find than in the food area. Nevertheless, there are some companies that have succeeded in marketing sustainable textiles successfully. The outdoor clothing and gear company Patagonia, for instance, strives to make the best products and reduce the environmental impact along the entire product life cycle (Fowler and Hope, 2007). It is positioned in the premium segment, with high prices signalling the quality of the product and services. Patagonia belongs to the group of the sustainability marketing

performers. Similar to the food market, the structure of the textile market is highly polarized into quality and price orientated segments. The global retailer H&M is clearly positioned in the price segment, offering ever-changing fashion clothes for a low price. It could be classified as sustainability marketing passive. H&M has been active in CSR activities for a couple of years, though. The main aim is to avoid damage to corporate reputation and brand image. In 2008, however, H&M also launched an organic cotton fashion range. Similar to the German food 'hard' discounters, H&M offers inexpensive sustainable products to the low-price segment. Obviously, there seem to be some similarities between the food and textile markets regarding sustainability marketing. Previous developments in the food area can be observed in the textile area as well with a certain time lag.

What about other non-food industries? Take consumer electronics, for instance, which was the subject of a recent study on environmental orientation and brand value (First and Khatriwal, 2008). That study showed that consumer electronic companies such as Nokia, Philips, HP and Sony are environmentally quite active, but they do not convey the message to consumers. The environment is hardly mentioned, i.e. it is not embedded in the corporate or product brands of the international consumer electronics companies (First and Khatriwal, 2008). According to the study, sustainability marketing (or to be more precise eco-marketing) does not play a great role in consumer electronics. Why is this? We would argue that consumers are not sensitized to socio-ecological problems of consumer electronics (yet). Furthermore, environmental product qualities such as energy efficiency during use and environmentally sound disposal are hardly perceivable for consumers and they do not work as 'deal clinchers' when perceived and understood. This is why the environmental standards in consumer electronics are rather driven by national and international regulations than by end users.

On the basis of our brief analysis, we are inclined to say that we can generalize our empirical findings in dependence on the four suggested consumers factors, the market structure and the competitive situation. This assumption is also in line with a study on corporate environmentalism strategy in the Spanish consumer product sector (Buil-Carrasco *et al.*, 2008). Besides corporate environmental strategy, the authors of the study also analysed environmental marketing strategy. They came up with four clusters, which revealed a high degree of consistency with our empirical findings: Cluster 1 in the Spanish study could be interpreted as sustainability marketing performers, cluster 2 as indecisives, cluster 3 as followers and cluster 4 as passives. Companies from the food and textile sectors mostly shape the first cluster of sustainability marketing performers. The third cluster of sustainability marketing followers mainly consists of large firms offering household products (Buil-Carrasco *et al.*, 2008).

Conclusions

In our empirical study of the German food sector we identified four sustainability marketing types with distinctive characteristics (performers, followers, indecisives and passives). Consumers are one of the main drivers of sustainability marketing. Depending on the sensitization of consumers to socio-ecological problems, the perceptibility of socio-ecological qualities, the individually perceived net benefits and the availability of sustainable alternatives, we propose that that we can generalize the empirical results; i.e., the four sustainability marketing types apply to non-food sectors, too. The incorporation of social and ecological aspects into marketing strategies depends not only on the industry sector, but also on the market segment in which the company competes. Companies that are positioned in the premium or quality segment are more inclined to take an active stance on sustainability marketing. There seems to be a 'natural fit' between strategic positioning and the incorporation of sustainability issues into marketing. By considering and integrating social and ecological dimensions into products, the companies add value to their brands, responding to the increasing demand by consumer groups who are quality conscious and open to socio-ecological issues. In comparison, companies that compete in the price segment are less inclined to adopt active sustainability marketing strategies. Their consumers are highly price sensitive, not particularly interested in social and environmental issues and certainly not willing to pay extra for them. Thus, the degree of freedom to follow an active sustainability approach is lower. The examples of organic food products (Aldi) and organic cotton clothes (H&M) show that it may be challenging, but is not impossible, to offer inexpensive sustainable products in the price segment. It is the challenging task for (sustainability) marketers to solve this conundrum.

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