

Competitive Strategies

Their Relevance for Sustainable Development in the Food Industry

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Abstract

To date, there are only few works in the strategic management literature considering sustainable development as well as competitive strategies. The contribution extends existing work by a systematic analysis on the compatibility of activities for sustainable development and competitive strategies in the food industry. Activities for sustainable development are categorized according to the two dimensions of “effects on costs in the long term” and “effects on food product quality”. The purpose of this contribution is to theoretically examine the compatibility of activities for sustainable development and competitive strategies in order to derive practical guidance for strategy executives in the food industry. Michael E. Porter’s concept of generic competitive strategies as well as the idea of hybrid strategies are applied to systematically analyze the compatibility. Furthermore, it is revealed that there is presently a lack of empirical findings regarding the potential success of hybrid strategies in the food industry within the context of sustainable development. The contribution provides guidance on choosing generic competitive strategies and appropriate supporting activities within the context of sustainable development. It is shown that companies in the food industry who follow the idea of sustainable development uncompromisingly will often have problems to successfully establish the competitive strategy of cost leadership.

Keywords: competitive strategies, hybrid strategies, food industry, simultaneity hypothesis, sustainable development

1. Introduction

Significant research efforts in the area of economics and management have been devoted to ecological topics and aspects of sustainable development (Bansal, 2005; Constantatos, & Herrmann, 2011; Elkington, 1994; Gladwin, Kennelly, & Krause, 1995; Keong, 2005; Molina-Azorín, Claver-Cortés, López-Gamero, & Tarí, 2009; Porter, & van der Linde, 1995; Shrivastava, 1995; Yu, Ting, & Wu, 2009). In particular, Michael E. Porter’s concept of generic competitive strategies (Porter, 1980/2004) is discussed both in the context of environmental management (Chen, & Chang, 2013; Orsato, 2006) and of sustainable development (Cruz, Pedrozo, & de Fátima Barros Estivalte, 2006; Peters, & Zelewski, 2011; Shrivastava, 1995). Orsato (2006) considers the environmental perspective of sustainable development and proposes a concept of four environmental strategies. Cruz, Pedrozo and de Fátima Barros Estivalte (2006) ascertain that companies cannot immediately shift from a traditional economic and financial approach to one of sustainable development, since they must first undergo a learning process. Peters and Zelewski (2011) have made a first attempt to categorize activities for sustainable development in the context of competitive strategies. Shrivastava (1995) focuses on the environmental perspective and converts Michael E. Porter’s competitive strategies into ecologically sustainable strategies. Moreover, Porter and Kramer (2006) discuss interdependencies between companies and society within the concept of corporate social responsibility (CSR), as well as how to gain competitive advantages by helping to solve selected societal problems.

The contribution made by this paper is to show which activities for sustainable development are suitable for which generic competitive strategies in the food industry. The paper covers both the food manufacturing and the food retailing sector. Furthermore, the paper at hand addresses the so-called simultaneity hypothesis (Corsten, &

Will, 1993), and especially hybrid strategies (Baroto, Abdullah, & Wan, 2012; Corsten, & Will, 1993; Miller, & Dess, 1993; Pertusa-Ortega, Claver-Cortés, & Molina-Azorin, 2007; Peters, & Zelewski, 2011).

Besides, it should be noted that this paper sets out to analyze the interdependencies between competitive strategies in the food industry and activities within sustainable development, and not to analyze the interdependencies among a company's activities, since that has already been done elsewhere (e.g. Porter, & Siggelkow, 2008). Furthermore, the paper concentrates on Michael E. Porter's concept of competitive strategies, while other strategy concepts like Henry Mintzberg's concept of emergent strategies (e.g. Kotha, & Vadlamani 1995; Mintzberg, Ahlstrand, & Lampel, 2005) are being neglected. According to the authors' experiences, deliberate strategies like Michael E. Porter's competitive strategies are widespread in the food industry and especially in the food retailing sector, while explicit knowledge about emergent strategies is very rare. Moreover, Michael E. Porter's concept of competitive strategy has been used extensively to analyze food industry practices (e.g. McHugh, Greenan, & O'Rourke, 1993; Ottesen, 2006; Ramakrishnan, 2010).

This paper applies the prevailing understanding of sustainable development by the World Commission on Environment and Development (World Commission on Environment and Development [WCED], 1987). They defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). This definition has been widely accepted in the literature (e.g. Crals, & Vereeck, 2005; Ngwakwe, 2012; Spangenberg, 2010; Tsai, & Chou, 2009).

Sustainable development as well as sustainable management are often viewed from an ecological or environmental, an economic and a social perspective (e.g. Biloslavo, & Trnavčević, 2009; Carter, & Rogers, 2008; Porter, & Kramer, 2006). The ecological or environmental perspective ensures that the environment is preserved and protected (e.g. Biloslavo, & Trnavčević, 2009). From the economic perspective sustainable development entails the efficient use of resources and according to the World Commission on Environment and Development (1987) it involves economic growth in order to meet basic human needs and to raise the standards of living. The social perspective focuses on equal opportunities for all humans (WCED, 1987) and on human well-being. Strategy executives regularly have to determine a proper balance between the perspectives of sustainable development due to tradeoffs between the three perspectives. For example, efficiency increases should not be achieved at the expense of the well-being of nature and humans. The social and also the ecological perspective are regularly also considered within the concept of corporate social responsibility (Paul, & Siegel, 2006). But the following analysis concentrates mainly on the ecological perspective. From a macroeconomic point of view, this perspective has the character of being a necessary condition for the two other perspectives, since destruction of the environment removes the basis for economic and social action. Porter and van der Linde (1995) are pointing out that social benefits can emerge from strict environmental standards. However, the economic perspective is also considered in order to determine which activities within sustainable development are appropriate for superior competitive strategies.

Michael E. Porter's concept of generic competitive strategies (Porter, 1980/2004) is a management classic that is still widely used in strategic management literature (e.g. Parnell, 2011; Ramakrishnan, 2010; Slater, Olson, & Hult, 2010) and that is, according to the practical experiences of the authors and several empirical studies, well known by many executives (Dess, & Davis, 1984; Jennings, & Lumpkin 1992, Kotha, & Vadlamani 1995; Pertusa-Ortega, Claver-Cortés, & Molina-Azorin, 2007; Robinson, & Pearce, 1988). The two essential strategies in Michael E. Porter's concept of generic competitive strategies are overall, i.e. industry-wide, cost leadership and overall differentiation strategy.

The aim of cost leadership is to realize lower costs than all competitors. A prerequisite for achieving this industry-wide lowest cost level is to capture a high market share and thus produce large quantities. This permits cost degression on the basis of experience curve effects, spreading fixed costs among a large number of products, and exerting market power. By contrast, differentiation strategy is usually confined to a small market share. A company pursuing a differentiation strategy differentiates itself from its competitors by offering a unique benefit to its customers and thus establishing a unique selling proposition (USP). Examples of such benefits include high product quality (quality leadership), high innovation intensity (technology leadership), low time-to-market (time leadership) or a special image (image leadership). Differentiation strategy, in contrast to cost leadership, is thus not a homogeneous strategy but a bundle of different strategy types. In this paper it is assumed that the most common type of differentiation strategy in the food industry is quality leadership. Therefore, the following analysis is mainly focused on quality leadership.

The third strategy in Michael E. Porter's concept of generic competitive strategies is focus (Porter, 1980/2004) or niche strategy (Nielsen, 1987; Shrivastava, 1995). A company may focus on a geographic market, a customer

group or a product group in order to better serve this niche market. This strategy is not a distinctive strategy, since it is a focused application of either cost leadership or differentiation strategy to a niche market or of a combination of both. This is why the focused strategy is neglected in much of the work dealing with Michael E. Porter's concept of generic competitive strategies (e.g. Arendt, Priem, & Ndofo, 2005; Parnell, & Wright, 1993; van der Wurff, 2004; Wiese, 1994).

According to Michael E. Porter's concept, a company's management should dedicate itself to only one of the generic competitive strategies in order to generate a sustainable competitive advantage. This is called inconsistency hypothesis (Corsten, & Will, 1993). A company attempting to combine two generic competitive strategies will end up "stuck in the middle" (Pertusa-Ortega, Claver-Cortés, & Molina-Azorin, 2007; Porter, 1980/2004). According to Michael E. Porter's (1980/2004) so-called U-curve, a company in this position has a low return on investment. A common explanation for the inconsistency hypothesis is that creating a USP to establish a differentiation strategy raises costs, and these costs are an obstacle to achieving the strategic aim of cost leadership to realize lower costs than all competitors. In strategic management literature, there is some older work generally supporting the inconsistency hypothesis (Dess, & Davis, 1982, 1984; Hambrick, 1983) as well as work contradicting it (Hall, 1980; Hill, 1988; Kim, Nam, & Stimpert, 2004; Miller, & Dess, 1993; Miller, & Friesen, 1986; Murray, 1988; Parnell, 1997; Parnell, 2011; Parnell, & Wright, 1993; Ramakrishnan, 2010; White, 1986). The work contradicting the inconsistency hypothesis has led to the so-called simultaneity hypothesis (Corsten, & Will, 1993). According to this simultaneity hypothesis, so-called hybrid strategies, which set out to pursue cost leadership and differentiation strategy simultaneously, are promising and can be successful. A catchy example of an activity supporting such a hybrid strategy is employing computer integrated manufacturing (CIM) systems (Corsten, & Will, 1993). CIM systems can enable a company to cut costs and simultaneously achieve higher quality. It is beyond the scope of this paper to discuss the controversy surrounding these hypotheses and their implications in depth. This has been done elsewhere (e.g. Corsten, & Will, 1993; Parnell, 1997, 2006).

However, works on this controversy in the food industry are very scanty (Peters, & Zelewski 2011; Ramakrishnan, 2010). The controversy nevertheless raises the question of whether hybrid strategies can be successful within the context of sustainable development in the food industry and can lead to a sustainable competitive advantage.

2. Method

The effects of activities for sustainable development on the costs as well as the food product quality are analyzed in order to be able to examine which activities can be used to support generic competitive strategies in the context of sustainable development. Therefore, activities for sustainable development are categorized according to the two dimensions of "effects on costs in the long term" and "effects on food product quality" (Peters, & Zelewski, 2011). Activities which bring about a reduction in food product quality are not considered in the following, since it is assumed that companies in the food industry do not usually undertake such activities to support a competitive strategy.

As depicted in Figure 1, four activity categories are developed on the basis of the two dimensions. A fifth activity category is additionally introduced. This fifth activity category is a residual category for activities whose effects either on costs in the long term or on food product quality or on both of them can only be determined case by case.

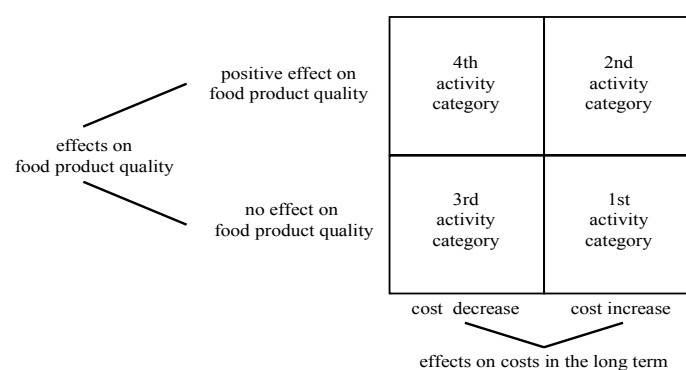


Figure 1. Categorization of activities for sustainable development according to strategic dimensions

The first category contains activities for sustainable development that increase costs in the long term but do not affect food product quality. Activities in this category are usually undertaken only by companies that consider environmental care to be important or by ecologically sustainable companies. Examples of activities within this category are the investment in emission filters that are not required by law and the utilization of renewable energy. Today, many companies in the food industry report the share of renewable energy and set goals to increase this share (e.g. Nestlé, 2012; Walmart, 2012). The world's leading food retailer Walmart aims at purchasing 100 percent renewable energy (Walmart, 2012).

The cost of undertaking activities in this category may make it difficult for companies in the food industry to achieve cost leadership, since a competitor who is also pursuing cost leadership realizes lower costs *ceteris paribus* by neglecting such activities. Moreover, successfully pursuing a quality leadership could prove difficult because activities in this category do not increase food product quality and hence do not lead to a higher willingness to pay. Producing food using renewable energy has no effect on the quality of the food. A company must therefore undertake additional activities to communicate the unique benefit and convince customers that higher prices for the food products are justified. Customers must be persuaded to pay higher prices for the food products because only renewable energy is used in their production, or low-emission means of transport such as rail or inland waterway are employed. The classical way to communicate the USP is to use advertising. Another way of communicating the USP of a product to customers is to place a statement on the package or on the food product itself that it is produced sustainably. A company could also think about putting a sustainability label on the packaging (De Boer, 2003). Examples of such sustainability labels are some of the Green Tick™ labels (Harris, 2007), the label of the organic cultivation association Bioland (Bioland e.V., 2009), and the seafood ecolabel of the Marine Stewardship Council (www.msc.org). However, it might be difficult to gain customers attention with sustainability labels due to a growing number of such labels.

The second category encompasses activities that increase costs in the long term and have a positive effect on food product quality. An example of an activity within this category is refraining from using chemical fertilizers. Refusal to use chemical fertilizers increases unit costs, but food product quality rises because the processed food is less burdened with pollutants. Given the costs of these activities, cost leadership is not normally a strategic option. However, quality leadership suggests itself because the high quality of the food products can be used to establish a USP.

The third category contains activities that decrease costs in the long term but do not affect food product quality. The activities in this category aim at reducing input, especially costs, at the same output in terms of quantity and quality. For example, old machines can be replaced by new resource-efficient or eco-efficient machines to save electricity, water and gas. This has already been discussed extensively (e.g. Porter, & van der Linde, 1995; Orsato, 2006). Many food manufacturers as well as retailers report on their ongoing efforts to reduce energy consumption (e.g. Kraft Foods, 2011; Nestlé, 2012; Walmart, 2012). Furthermore, this is actually happening within the trend of green information technology (e.g. Branker, Corbett, Webster, & Pearce, 2010; Sturdevant, 2008). During the last years many Chief Information Officers (CIOs) have replaced old information and communication technology systems with new more resource-efficient ones ("green computing"). In particular, companies operating a data center have the opportunity to cut costs significantly. In the short term, fixed costs of investments in new machines incur. However, lower resource consumption is synonymous with lower variable costs, so that in the long term costs can be reduced, and the break-even-point of the investment is exceeded.

The activities in this category are suitable for cost leadership, since they positively affect attainment of the strategic goal of realizing lower costs than all competitors. If a company in the food industry chooses ecological leadership as a type of differentiation strategy, activities in the third category are also suitable on account of the congruence of the goals of reducing resource consumption and cost. In the case of differentiation strategy, the ecological USP must be communicated to customers, which is possible using sustainability labels, for example. However, a problem may be that communication of the ecological USP generates costs, making it difficult for a company to realize lower costs than all competitors if it intends to establish a cost leadership and a differentiation strategy simultaneously.

The fourth category includes activities that reduce costs in the long term and improve food product quality. An example of an activity in this category is the replacement investment in new machines that both consume fewer resources and guarantee higher food product quality. Activities in the fourth category are suitable for achieving the strategic aim of cost leadership as well as that of a quality leadership. Following the simultaneity hypothesis and contradicting Michael E. Porter's inconsistency hypothesis, it makes sense to carry out activities in the fourth category to support a hybrid strategy, or especially a hybrid sustainability strategy. However, more empirical analyses are required to study the efficacy of hybrid strategies within the scope of sustainable

development in the food industry, since so far there are no known hybrid strategies that cover all three perspectives of sustainable development.

Nevertheless, there are examples from other industries of activities or bundles of activities like the following one from the Dutch flower industry that directly affect the ecological as well as the economic perspective of sustainable development (see also Carter, & Rogers, 2008). Porter and van der Linde (1995) describe an example from the Dutch flower industry. In this particular case, the flowers are cultivated in closed-loop systems in greenhouses. Since the flowers grow in rock wool and water, no soil is contaminated, and the need for pesticides and fertilizers is reduced, which is desirable from the ecological perspective. Moreover, Porter and van der Linde (1995) point out that the quality of the flowers is improved because of the more stable growing conditions in the closed-loop-systems; at the same time, because the flowers are raised on special platforms, the handling costs are reduced, which directly and positively affects the economic perspective. There is also a possible indirect effect on the social perspective of sustainable development. The avoidance of soil pollution could have positive social effects such as a healthier living environment. In the same way, the reduction in costs could lead to improved incomes. However, as stated above, further research is needed to analyze hybrid strategies in the food industry within the scope of sustainable development.

The fifth category is for activities whose effects either on costs in the long term or on food product quality or on both of them can only be determined in each individual case. One example is training employees to act in the best interests of sustainable development. Initially, employee training generates costs. It can also continue to generate costs in the long term if employees engage in cost-intensive activities as a result of the training. Such training falls into the first or second activity category. Training employees can also lead to a reduction of costs in the long term if, for example, employees begin to use resources more efficiently. In this case training can be assigned to the third or fourth activity category.

Further examples of activities within the fifth category are sourcing from regional suppliers and self-restriction to regional markets in order to limit the consumption of resources in the transport of intermediate and end products, and keeping emissions as low as possible (Stephens, Pretty, & Sutherland, 2003). Retail Chains like Walmart (2012), British Tesco (<http://realfood.tesco.com/our-food/local-sourcing/login.html>) and French Carrefour (2012) promote locally sourced products. Regionalization activities are discussed within the food miles concept (Stagl, 2002). Walmart (2013) has adopted the food miles concept by launching a food miles calculator that offers customers the opportunity to calculate the total food miles for a single product or for the whole purchase. Moreover, regionalization activities are sometimes of relevance for certification in order to obtain a sustainability label or an eco label, as in the case of the Swiss Ibex Fairstay Label for hotels (www.ibexfairstay.ch).

Indeed, transport costs could be reduced by regionalization activities. However, whether the limitation to regional suppliers leads to higher costs due to higher purchase prices must be determined in each individual case. Furthermore, lower production outputs are possible, since the capacities of regional suppliers may only be sufficient for a limited quantity of intermediate products, or the potential of regional markets may not justify higher production outputs. Lower outputs could mean that economies of scale are not generated and cost depression effects are therefore not realized. Moreover, in each individual case it should be checked whether the regionalization-induced reduction in production outputs has a negative effect on efficiency, wiping out both resource consumption savings and emission savings. In this extreme case, it is worth asking whether regionalization is a wise activity within the context of sustainable development, at least from an economic and an ecological perspective. However, from the social perspective of sustainable development, regionalization could be seen as a wise activity even in this extreme case. Ensuring transparency regarding the conditions of food production along the entire value chain may prove difficult if the suppliers' sites are located far away from the companies' sites. It may also prove difficult to control the labor conditions sufficiently to ensure good treatment of employees.

It is also important to check in each individual case whether regionalization affects food product quality. A lack of transparency regarding the production process can be a reason for regionalization. For example, regionalization can be used to reduce the risk of substances which are prohibited by law or dangerous to health being used in the production process. A further argument for regionalization is that long transport distances could adversely affect food product quality. Certainly, there are many food products – especially many kinds of processed food like instant food products, for example, – whose quality is not usually affected. Yet long-distance transport can be a problem for fresh organic food products, since fruit and vegetables especially may lose vitamins and taste en route. Moreover, food can be polluted with harmful chemical substances. For example, poultry meat produced outside the European Union (EU) may be encumbered with antibiotics not allowed in the

EU.

The restriction to regional suppliers and the focus on regional markets are decisions implying a niche strategy. Whether a company in the food industry chooses a cost leadership, a quality leadership or a hybrid strategy for the niche needs to be decided in each individual case, and also on the basis of the effects on transport and production costs as well as on food product quality.

3. Results

All in all, activities within the first and the second category and potentially some activities in the fifth category generate costs and thus conflict with the strategic aim of cost leadership to realize lower costs than all competitors. This is why companies in the food industry pursuing cost leadership are recommended to focus on activities within the third and the fourth category, and on those activities in the fifth category that enable them to cut costs in the long term.

Companies in the food industry steadfastly pursuing the idea of sustainable development and thus implementing activities from all five categories should choose a quality leadership strategy to operate successfully on the market. In the case of a differentiation strategy, the company must take into account that the costs and especially the additional costs of differentiation are covered by the expected revenues. Furthermore, the company must take care to differentiate itself from competitors who offer bio, eco or organic food products without considering sustainable development in a consistent way. If these competitors refrain from activities within the first category, they can produce at lower costs than the companies who consistently follow the idea of sustainable development, and they can still promote their food products as bio, eco or organic food products. A convenience food manufacturer, for example, who produces frozen vegetables cultivated without the use of chemical fertilizers can distribute them as bio, eco or organic food products (activity from the second category), even if nuclear energy is employed in the production process. However, a convenience food manufacturer uncompromisingly following the idea of sustainable development would have to utilize renewable energy (activity from the first category) and would thus incur higher costs.

Food manufacturers who pursue the idea of sustainable development without compromise can essentially use two instruments to differentiate themselves from competitors selling bio, eco or organic food products. The first is to put sustainability labels on the packages of their food products, and the second is to conduct information campaigns on sustainable development and on sustainable food production. Companies in the food industry could consider utilizing the internet to provide information on their sustainable development activities at low costs (Biloslavo, & Trnavčević, 2009). Many food manufacturers (e.g. Kraft Foods, 2011; Nestlé, 2012) as well as retailers (e.g. Carrefour, 2012) provide information about their activities for sustainable development on their websites.

Companies in the food industry focusing on activities from the third and the fourth category could possibly realize a hybrid strategy. This contradicts Michael E. Porter's inconsistency hypothesis, but could be justified with the simultaneity hypothesis and the empirical results confirming the simultaneity hypothesis.

Fundamentally, a quality leadership strategy must be recommended for companies in the food industry who uncompromisingly follow the idea of sustainable development, since some activities within sustainable development increase costs in the long term and thus make it difficult to successfully establish a cost leadership strategy.

A further strategic option for such companies in the food industry is to employ hybrid strategies. However, up to now there has been a lack of empirical findings regarding the potential success of hybrid strategies within the context of sustainable development. Furthermore, the compatibility of activities for sustainable development and competitive strategies should be examined in other industries.

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