Do Organic Labels Drive Repeat Purchase Loyalty? Investigating Reasons of Growth of the Danish Organic Food Market

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Abstract

This paper investigates the reasons that have led to the growth of the organic food market in Denmark; a country with the highest market among countries in Europe. To fulfil this objective trends are explored in market performance and repeat purchase loyalty for a period of ten years (2001-2010) across nine product categories. The results show that growth during this period is primarily driven by penetration, whereas repeat purchase loyalty and purchase frequency remain almost stationary. Another important finding is that organic foods suffer in terms of repeat purchase loyalty, mainly due to lack of availability. Implications from this research suggest that in order to grow the organic food market more consumers need to be reached, rather than focusing on increasing purchase frequency of existing consumers. To achieve this aim, increased awareness of organic foods and successful implementation of quality assurance labelling schemes is a prerequisite; initiatives that took place successfully in Denmark during that period.

Keywords: Organic foods; Repeat purchase loyalty; Denmark; Market growth

Introduction

During the last decade the market of organic foods almost tripled. Global revenue increased from 18 billion USD in 2000 to 54.9 billion USD in 2009 (Sahota, 2011). In Europe, Denmark leads in market performance and the market share for organic foods was 7.2% in 2009 (Willer, 2011). This growth took place in the second part of the last decade during which sales almost doubled since 2005 (Organic Denmark, 2011). This fact itself makes Denmark an interesting case worth of investigation as to what led to this growth. Answering such a question will provide guidelines on what strategies should be followed by other countries in order to grow the market of organic foods.

Consumers hold positive attitudes and preferences towards organic foods (Hughner, McDonagh, Prothero, Shultz II, & Stanton, 2007), which, together with industry-related conditions, could explain the market growth of organic foods. However, little is known on consumers’ actual purchase behaviour toward organic foods. Such knowledge is useful since some researchers argue that one way to grow the organic market is by increasing consumer loyalty to organic food brands (Wier, O'Doherty Jensen, Andersen, & Millock, 2008). This is true if one accepts the argument that organic food brands are small and therefore behave as niche brands that, in turn, could show excess repeat purchase loyalty given their market share. However, niche brands rarely exist (Sharp, 2010), and other factors, such as lack of availability and competition from conventional brands, may lead organic food brands to show higher switching rates.
This study explores what has contributed to the growth of the organic food market in Denmark. It mainly focuses on market-related conditions rather than industry-related ones, by paying particular emphasis on repeat purchase behaviour of consumers who buy organic food brands. The objective is to investigate how organic food brands perform in the market and understand if growth in the organic market is driven by penetration and/or repeat purchase loyalty. The research questions addressed are as follows:

**RQ1:** Is repeat purchase loyalty for organic food brands greater than for conventional ones?

**RQ2:** Has repeat purchase loyalty evolved during this period?

**RQ3:** What reasons could explain the growth of the organic market in Denmark?

### Consumer Research on Organic Foods

Extant research covers extensively consumers’ preferences and perceptions about organic foods, as well as how these differ across consumers (e.g., Loureiro, McCluskey, & Mittelhammer, 2001; Stanton & Guion, 2010; Yiridoe, Bonti-Ankomah, & Martin, 2005). The generally agreed outcome from these studies is that consumers perceive products to be healthier, more nutritious, tastier and generally of better quality than conventional foods. Another stream of research investigates consumer motives and factors that stimulate or hinder consumption of organic foods (e.g., Aertsens, Verbeke, Mondelaers, & Van Huylenbroeck, 2009; Baker, Thompson, Engelken, & Huntley, 2004; Honkanen, Verplanken, & Olsen, 2006; Makatouni, 2002; Zanoli & Naspetti, 2002). The most prominent motives behind consumption of organic foods are connected with health, taste, environmental concerns and animal welfare (Hughner, et al., 2007). On the other hand, often mentioned barriers preventing consumers from buying organic foods are high price, limited availability and awareness, and unsatisfactory quality (Aertsens, et al., 2009; Padel & Foster, 2005; Zanoli & Naspetti, 2002).

To secure a sustainable growth of the organic market, labelling schemes are set in many countries that have a central role in the marketing of organic food brands (Thøgersen, 2010; Torjusen, Sangstad, O'Doherty Jensen, & Kjærnes, 2004). Such labelling schemes have been found to influence consumers’ choice and decision making, by helping consumers build trust and confidence, and distinguish organic from conventional food brands, which in turn reduce search costs within stores (Li, Zepeda, & Gould, 2007; Sønderskov & Daugbjerg, 2011; Yiridoe, et al., 2005). Moreover, many studies show that consumers are more willing to pay organic labelled foods (Batte, Hooker, Haab, & Beaverson, 2007; Bauer, Heinrich, & Schäfer, 2012; Bougherara & Combris, 2009). In a recent study, Bauer et al. (2012) find that the organic labels affect consumers’ perceptions with regard to their main purchasing motives, and such affect is irrespective of whether a brand is global, local, and private label. However, the same authors find that private brands are more adept at profiteering from the use of organic labels than global and local brands.

From the afore-mentioned studies the primary source of data is stated preference, while few use actual purchase data (Ngobo, 2011; van Doorn & Verhoeft, 2011; Wier, et al., 2008). From those, the majority focuses on consumer demand toward organic foods using aggregated
market statistics. Thus, less is known about consumers’ purchase behaviour and the market performance of organic food brands, something that this paper aims to contribute.

**Data and Method**

For the purpose of this study panel data provided by GfK in Denmark were used. Nine product categories were analysed across a series of ten years (2001-2010). For each product category, basic brand performance measures (i.e. market share, penetration and purchase frequency) were calculated. These measures, together with penetration and purchase frequency at the category level, were further used as input measures for fitting the Dirichlet model (Ehrenberg, Uncles, & Goodhardt, 2004). The model was used as a benchmark tool to assess the overall performance of each market, as well as to provide estimates for the calculation of the polarisation index ($\phi$) that was used as a reliable measure of repeat purchase loyalty (Chrysochou, Krystallis, & Giraud, 2012; Corsi, Rungie, & Casini, 2011; Jarvis, Rungie, & Lockshin, 2007). The polarisation values range from zero to one, with values close to one (zero) indicating higher (lower) levels of repeat purchase loyalty.

**Results**

Table 1 presents the market share by volume, penetration and purchase frequency (expressed in average volume) for organic sub-categories. These measures were averaged across two periods: 01-05 and 06-10. The reason for this split was not random, as statistics shown that in the first period the market share for organic foods was stable, whereas in the second period it started growing (Organic Denmark, 2011).

**Table 1. Trends in market share by volume, penetration and purchase frequency (expressed in average volume) of organic sub-categories**

<table>
<thead>
<tr>
<th>Category</th>
<th>Market Share</th>
<th>Penetration</th>
<th>Purchase Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01-05</td>
<td>06-10</td>
<td>Trend*</td>
</tr>
<tr>
<td>Milk</td>
<td>0.24</td>
<td>0.25</td>
<td>-</td>
</tr>
<tr>
<td>Cereals</td>
<td>0.15</td>
<td>0.19</td>
<td>↑</td>
</tr>
<tr>
<td>Eggs</td>
<td>0.16</td>
<td>0.16</td>
<td>-</td>
</tr>
<tr>
<td>Flour</td>
<td>0.09</td>
<td>0.12</td>
<td>↑</td>
</tr>
<tr>
<td>Fruit juice</td>
<td>0.04</td>
<td>0.11</td>
<td>↑</td>
</tr>
<tr>
<td>Butter</td>
<td>0.05</td>
<td>0.09</td>
<td>↑</td>
</tr>
<tr>
<td>Vegetables</td>
<td>0.05</td>
<td>0.08</td>
<td>↑</td>
</tr>
<tr>
<td>Oils</td>
<td>0.02</td>
<td>0.05</td>
<td>↑</td>
</tr>
<tr>
<td>Coffee</td>
<td>0.03</td>
<td>0.04</td>
<td>↑</td>
</tr>
</tbody>
</table>

* Trend is ↑ or ↓ when change between the two periods is > or < 5%, respectively.
Among the categories analysed, the market share for the organic sub-category was the highest in the milk category and the lowest in the coffee category. Penetration rate varied proportionally to market share, although some exceptions were observed in the case of vegetables, butter and eggs categories. For these categories, penetration rate was higher than expected. As regards to trends in market share, with the exception of the milk and eggs categories, in all remaining categories it increased. Similar was the case for penetration rate, with a decline only in the case of the eggs category. Finally, purchase frequency increased in the eggs, cereals and vegetables categories, whereas it decreased in the flour category. In all other categories purchase frequency remained stable.

Table 2 presents the average polarisation values for the same periods across product categories and organic sub-categories. Categories with high polarisation values, thus high repeat purchase loyalty, were oils and fruit juice, whereas vegetables showed the lowest polarisation value. In the case of the organic sub-categories, flour and cereals had the higher polarisation values, whereas vegetables had the lowest. All remaining categories had a similar polarisation value.

As regards to trends in changes of polarisation values between the two periods, the results show that it remains unchanged for the whole category, whereas in the organic sub-category only for the eggs and fruit juice category polarisation scores increase. Finally, differences in polarisation values between the organic sub-category and the whole category reveal that organic sub-categories show always lower levels of polarisation values.

### Table 2. Trends in polarization values for organic sub-categories and product categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Polarisation for category</th>
<th>Polarisation for organic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01-05</td>
<td>06-10</td>
</tr>
<tr>
<td>Milk</td>
<td>0.54</td>
<td>0.58</td>
</tr>
<tr>
<td>Cereals</td>
<td>0.76</td>
<td>0.74</td>
</tr>
<tr>
<td>Eggs</td>
<td>0.65</td>
<td>0.66</td>
</tr>
<tr>
<td>Flour</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Fruit juice</td>
<td>0.96</td>
<td>0.92</td>
</tr>
<tr>
<td>Butter</td>
<td>0.80</td>
<td>0.77</td>
</tr>
<tr>
<td>Vegetables</td>
<td>0.42</td>
<td>0.40</td>
</tr>
<tr>
<td>Oils</td>
<td>0.96</td>
<td>0.93</td>
</tr>
<tr>
<td>Coffee</td>
<td>0.86</td>
<td>0.86</td>
</tr>
</tbody>
</table>

* Trend is ↑ or ↓ when change between the two periods is > or < 5 units, respectively.

**Discussion**
The results show that the market share of organic foods showed a steady and significant growth, with an exception in the case of milk and eggs categories. These categories seem to have reached a peak in growth, which primarily is explained by the fact that organic food was first introduced in these categories. Therefore, one reason for the growth of the organic food market is that other categories than the traditional ones have introduced organic brands. Findings also suggest that another reason for this growth is penetration (i.e. more customers buying organic food brands), and not purchase frequency or repeat purchase loyalty. This result suggests that growth of organic food brands is primarily driven by increasing the customer base rather than increasing the frequency of purchasing them.

As regards to repeat purchase loyalty, the organic sub-category shows lower or equal levels of repeat purchase loyalty in comparison to the overall category. Repeat purchase loyalty for organic food brands is never higher, as one would expect to be if organic food brands were considered to perform as niche ones. On the contrary, findings suggest that the organic sub-category consists of brands with high switching rates. This could be explained by two reasons. The first reason is that organic brands by being rather small in market share they tend to suffer in terms of repeat purchase loyalty due to market-related factors, such as high competition, lack of availability and higher prices. The second reason is that organic labels may counterbalance the repeat purchase loyalty levels that stem from the brand name. In other words, when consumers choose among a set of organic brands the probability to switch might be higher than when choosing among conventional ones. Such arguments however need further research.

The results have marketing and theoretical implications. The assumption that repeat purchase loyalty toward organic food brands could increase in order to grow the market is more a myth rather than reality. Growth of a market, and subsequently the organic foods market, is led more by increase of its customer base rather than by increasing repeat purchase loyalty rates, something that previous branding research supports (Sharp, 2010). The organic food market can grow by targeting additional consumers – those who never bought organic before - and by increasing the availability of product offerings (both in terms of more categories introducing organic brands and making them easily accessible in-store to consumers). However, successful implementation of a quality labelling scheme is a prerequisite. In fact, when looking at the organic label per se, recent findings show that Danish consumers show awareness of the national organic label in comparison to other labelling schemes as well as the European organic label (Grunert & Aachmann, 2012). This finding itself confirms the success of the Danish national label, which was introduced in the early 90s, as a policy tool that helped to promote sales among the non-organic consumers.
References


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