Conventionalization or diversification? – Development in the Danish organic production sector following market expansion

Martin Thorsøe and Egon Noe

Department of Agroecology, Aarhus University

Abstract: The organic food market is constantly evolving and organic products are exchanged at multiple markets constituted by particular forms of interaction between producers and consumers. The aim of this paper is to explore how the market influences organic production by looking at the relation between the market and producers engagement towards trust and quality building as well as farm level production strategy. We distinguish between four different market agencements, an arrangement of actors with agency: 1) standardizing market agencement, 2) personalizing market agencement 3) virtualizing market agencement and 4) aesthetifying market agencement. Through qualitative interviews with organic producers, several different strategies are identified. The data indicates that the market relation of the farmer influences production strategy and how trust and quality is build. In the standardizing market agencement producers applies an adaptable production strategy, trust and quality is bound to standards and labels. In the personifying market agencement the production strategy is diversified, trust and quality is negotiated directly. In the virtualizing market agencement production strategy is also diversified, trust and quality is negotiated indirectly via internet or mediated by word of mouth and in the aesthetifying market agencement production strategy is dedicated, trust and quality relies on external qualification.

Keywords: Alternative Food Networks, Market agencement; Actor-Network Theory; Organic food

Introduction

A market is never in a stable state of equilibrium, but it evolve in a reflexive process whereby the actors consciously adapt and negotiate their position in relation to other actors (Callon et al., 2002). Within agro-food studies it has long been debated how the market influences the development of organic food networks and what consequences follows from this development. Quality and trust are important fundamental components of the organic food market since prices are higher and the organic quality is not immediate. The Danish organic market has evolved, but the relation is between the market development and the fundamental components of organic food production trust and quality and the farm level production strategy remains unclear. The aim of this paper is to explore how the market influences organic production by looking at the relation between the market and producers engagement towards trust and quality building as well as farm level production strategy.

The organic production sector in Denmark provides an interesting case to study the relation between the organic market and the conditions of production. It has been a political aim for the past 25 years that the development in the organic production should be balanced by an equal development in the market for organic produce. In 2012 the organic sales in Denmark were around €700 million accounting for around 7.5 % of staple good sales, consequently Denmark is one of the countries in the world with the largest markets of organic goods per capita (DST, 2012). The organic market expanded particularly fast following the introduction of organic products into
discount stores in 2005, with annual growth rates of 12-33% (Hindborg, 2008). The state and the retail sector has played an important role in the development of the organic food production in Denmark and producers have gradually attempted to adapt to the demands of the retail sector (Schwartzman, 2012).

It is unfruitful to debate whether or not the market and influences farming, acting at the market is a fundamental necessity for farmers who wish to stay in business. The organic market in Denmark has developed and consequently Denmark is either extremely conventionalized or otherwise something else has happened. We will focus at how farmers are thinking about the market and how this affects their decision making. Before empirically exploring the relation between the market and producers engagement towards trust and quality building as well as farm level production strategy, we will take a small detour to better understand what market the market is and does.

Approaching “the market”

Markets are both differentiated and diversified, they evolve in a reflexive process whereby the actors consciously adapt and negotiate their position in relation to other actors (Callon et al., 2002). Our understanding of the market is informed by Actor-Network Theory (ANT), where the market is seen as an institution that mixes humans and non-humans and controls their relations (Callon, 1999). A market transaction involves marketizing what is exchanged, through a process of entanglement and disentanglement, whereby certain ties with other actors are cut while others are internalized (Callon, 1999).

Following Çalışkan and Callon (2009) we perceive markets as market agencements, an arrangement of sociotechnical actors framing a particular way of being economic, which organize the conception, production and circulation of goods and construct a space of confrontation and power struggle (Çalışkan & Callon, 2009). Agencements are a combination of heterogeneous elements which have been adjusted to one another and are endowed with agency. Different market agencements consequently operate with different framings of what it means to be economic. It is therefore fundamentally wrong to talk about markets in a singular form, there are multiple different markets.

Market agencements vary in terms of how products are singularized, which marketizing agencies contribute, how the market encounter, price-setting market design and maintenance is organized (Çalışkan & Callon, 2010). In this paper we will focus on this template and examine how the process of singularization occurs in different markets for organic produce. In our analysis we have attempted to understand how farmers categorize their different market options, and investigate the difference is among these. We will attempt to group market relations, based on the interactions at the market. We recognize that all market agencements are in a sense unique, but we have decided to make a distinction of different market agencements because our inquiry is about the overall development in the organic food market. The distinction serves as a tool which enables us to reflect on what the difference in market agencement implies for the actors which are part of the network.

We will explore the difference among market agencements by focusing on two aspects of the transaction (trust and quality) and farm level actions (production strategy). Following the ANT approach laid out earlier for this paper we understand A) Qualities are the stabilized outcome of a process of qualification, whereby certain relations are disentangled from the product and others internalized to have specific aspects of the product presented to the consumer (Callon et al., 2002). For the consumer there is no immediate difference between an organic product and a conventional, the difference therefore needs to be enacted, through qualification. Quality is therefore
not something which is inherent to the product itself, but it is the process by which the quality “comes alive”. B) Trust fundamentally relates to the expectations actors can have towards the network as a whole and other actors in the network, trust-building processes are means for enrolling agents in networks and thus for stabilizing associations like quality (Sztompka, 1999; Murphy, 2006; Möllering, 2006). The focus therefore becomes on how actors generate meaning, which might lead to economic practices. C) Production strategy, relates to how the products are produced, the temporality of the production and the market related risks which the producers have to manage. Production strategy of course depends on numerous factors in addition to the market, like available technology, crop rotation and biophysical factors like soil and climate. In this paper we will however focus on the relation between production strategy and the market, keeping in mind that other factors also has an influence on the production strategy.

Methods
Empirically the paper draws on 13 semistructured interviews with organic producers in Denmark conducted in the fall of 2012 and 2013. Interviewing for the project is still pending. We have interviewed the farmers as decision-makers and have asked them to reflect their market network relations. The interviews have all been conducted at the farms, afterwards transcribed verbatim and meaning condensed addressing the three aspects of the inquiry (Brinkmann, 2010). For an anonymized overview of the farmers who have been interviewed, see Fehler! Verweisquelle konnte nicht gefunden werden. To Our ambition with the inquiry has been to analyze the difference across the different markets and consequently the interviewees have been selected based on a strategy of maximum variation in markets and production (Flyvbjerg, 2006; Brinkmann, 2008).

Table 1: Overview of the farmers interviewed as part of the inquiry.

<table>
<thead>
<tr>
<th>Production</th>
<th>Size (ha)</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy farmer</td>
<td>220</td>
<td>Dairy, direct meat sales</td>
</tr>
<tr>
<td>Vegetable grower</td>
<td>120</td>
<td>Processing company</td>
</tr>
<tr>
<td>Dairy farmer</td>
<td>150</td>
<td>Dairy</td>
</tr>
<tr>
<td>Dairy farmer</td>
<td>325</td>
<td>Dairy, chickens and vegetables for local sale</td>
</tr>
<tr>
<td>Plant producer</td>
<td>180</td>
<td>Wholesale company; processing company</td>
</tr>
<tr>
<td>Vegetable grower, Plant producer</td>
<td>44</td>
<td>Farm shop, box scheme</td>
</tr>
<tr>
<td>Plant producer</td>
<td>300</td>
<td>Wholesale company, processing company</td>
</tr>
<tr>
<td>Plant producer</td>
<td>200</td>
<td>Wholesale company, direct meat sales</td>
</tr>
<tr>
<td>Plant producer</td>
<td>175</td>
<td>Wholesale company</td>
</tr>
<tr>
<td>Vegetable grower</td>
<td>120</td>
<td>Wholesale company</td>
</tr>
<tr>
<td>Vegetable grower</td>
<td>75</td>
<td>Farm shop, food communities, box scheme</td>
</tr>
<tr>
<td>Vegetable grower</td>
<td>230</td>
<td>food communities, supermarkets</td>
</tr>
<tr>
<td>Vegetable grower</td>
<td>150</td>
<td>Farm shop, food communities, box scheme</td>
</tr>
</tbody>
</table>

Results
Analyses of the interviews as well as a review of studies of Alternative Food Network markets indicate four different market agencements, distinguished by different forms of interaction and hence embedded social relations, which have been given a name to reflect the agency of each agencement, see also table 2.

1) Standardizing market agencement, here producers and consumers never interact directly and it is not possible for the consumer trace the product history at the market, origin or is not part of

---

103 The interviews will be carried out until saturation, but we are not entirely there yet.
the good which is transferred at the market (Busch, 2000; Guthman, 2003; Raynolds, 2004; Burch & Lawrence, 2005; Kamp, 2012).

2) **Personifying market agencement**, here interactions take place face-to-face and producers and consumers negotiate prices and qualities directly with each other (Hinrichs, 2000; Kirwan, 2006; Blake et al., 2010; Milestad et al., 2010).

3) **Virtualizing market agencement**, here interactions are virtual and producers are able to present the aspects of their production which the wish to highlight and to some extend communicate with consumers via virtual personal interaction (Kjeldsen & Thorsoe – Forthcomming; (Adelaar et al., 2004)).

4) **Aesthetifying market agencement**, here producers and consumers do not necessarily interact. Products are usually more expensive than comparable products in the same category and producers need to highlighting the added value (Stræte & Marsden, 2006; Stræte, 2008; Manniche & Larsen, 2013).

**Quality, trust and production strategies in the standardizing market agencement**

The standardizing market agencement is characterized by many suppliers selling similar products exemplified by for instance the world market or discount supermarkets. Standards consists of a set of measurable quality parameters marking a difference between organic and other forms of production, they are enacted through a set of everyday practices coordinating the activities in the food network (Kamp, 2012). In order for an issue to become standardized a process of mobilization of various actors needs to occur. The rejection of pesticide use has become a standard within organic production because the use of pesticides has been problematized by research, and because actors supporting the rejection have been mobilized. Quality in the standardizing market agencement is stabilized by these standards. Quality is thus something which can be measured (using instruments and following specific methods), this allows for competition and comparison among producers. The producers acting in the standardizing market agencement are producing products which are consumed in large quantities, like grain, milk and vegetables, which allows for a high degree of competitiveness among different producers.

Trust towards the organic food system is build via formal institutional arrangements and external qualification like labeling and control schemes, which are able to build trust at a distance (Renting et al., 2003). The producers interviewed for the paper therefore did not focus on the end consumers in their practice, but at the retailers and the world market for their specific produce, since this is what has an influence on their practice. As one of the interviewees remarks: “I think that it is just as important as being a good plant producer to follow the market (red: world market), because you can really be cheated.”

Since the producers focus at the world market, they face different uncertainties due to short term or no contracts prior to production, which is driven by the retailers and wholesalers desire for competition, low prices and flexibility. The producers respond to the risk posed by the fluctuating world market prices and short term contracts with different strategies: A) Distributing the risk by not relying on just one product or contract for all produce, but distributing the risk by forming many smaller contracts with different producers to not rely on only one contract. B) Flexibility, by investing in storage facilities and setting aside capital, which enable producers to store produce when prices are low and sell when they are high. C) Networking, by maintaining a large network in the retailing sector and always be open towards new market opportunities. D) Brokering, by follow developments in the world market to time the sale of their produce, when prices are right. E) Scanning the market for the best price of their produce. F) Last minute crop selection, to be able to grow the most profitable crops. Consequently the production strategy at the
standardizing market agencement is highly adaptable and producers are able to quickly shift production to accommodate the market.

**Quality, trust and production strategies in the personifying market agencement**

The personifying market agencement is characterized by the face-to-face interaction between producers and consumers, represented by outlets such as farm shops and farmers market. Products like meat and vegetables are typically transferred at these markets. The face-to-face interaction is a requirement for acting in the personifying market agencement, trust and quality is thus also build in the direct interaction. The interaction is also a source of joy and motivation for the participants. Producers are responsible for all the tasks in the commodity chain from food production to processing, advertising and sales, consequently they earns a high price pr. unit, but are not able to sell in bulk. Producers are able to completely control their self- and product presentation and address specific concerns of interests of the consumers and the product quality is very adaptable and can be tailored to meet the specific requirements of each customer. Similarly the direct interaction is an important quality in itself in this market agencement.

In the personifying market agencement there is potentially a high degree of transparency and the consumers can know all they wish about the production. This puts a requirement on the producers to also be honest and open, otherwise the trust displayed towards them will erode. Trust is negotiated face-to-face and the general labeling and regulation of organic products is of minor importance for the consumers, because their assessment is partly based on their perception of the producer. Upon asked whether his produce was organic one of the producers at a farmers market replied: “nah” to resemble, that he abstained from pesticide use, but was not certified organic producer. This logic makes sense in this agencement because trust is displayed towards him as a person and not bound to a label, where requirements are fixed.

The production strategy reflects the need to have a continuous supply of fresh, seasonal and local produce for their customers. Producers will therefore need to grow multiple crops, different varieties ripening at various times to always have a supply to sell. At the same time producers attempt to build personal relations and displaying the transparent character of the food network for the consumers. Producers do not only need to grow produce, they also have to nourish the social relations on which their sale depends, as one farmer remarks: “It is more fun this way because we get to know each other in the local community, there is more understanding of what it is that you go about doing and what others do for that matter. Some of the people we meet we would not know otherwise, but because we have this connection it also becomes something social, we do not only run a streamlined production, there are also other things which are important for us.” The producers are not to the same extent as other market agencements exposed to competitions from other producers, because their sales depend on long term social relations, which are not easily changed. This on the other hand need to be taken into account in the production, and the farmer must be open towards the consumers and for instance willing to “give a tour of the farm at any time” as one of the interviewees remark.

**Quality, trust and production strategies in the virtualizing market agencement**

Virtualizing market agencements are organized online, represented by for instance box schemes, food communities and internet shops, characterized by delivering a unique and highly convenient service for their consumers. Another important aspect where this market agencement differs from the others is that the quality of the products is not directly observable when the purchase is made, actors virtualizing need to continuously produce and reproduce quality and trust. Interactions are primarily virtual, but are also combined with face-to-face interactions, when farms or farm shops are visited or produce delivered. Online communication is therefore also used as an extension to direct personal interaction.
Online communication provides the producers with a platform to build qualities which are different from what can be found in other markets. It allows the producers to mediate more knowledge along with the products. A producer delivering vegetables to the Food Communities talks about the benefit of being able to attach a little information to the products: “If you are able to inform about the product and why it is the way it is, then you can also sell a slightly poorer quality, though at a discount price.” Several times this has enabled him to sell products which he would usually be forced to waste. The extra information which can be mediated with the products is important for building qualities which cannot be build through other market channels. The information changes the quality of the food; suddenly it becomes meaningful to eat an odd size cabbage because it can be perceived as the support of a local farmer or a protest against the conventional food system because it is a product that would have been wasted, if not for this particular market agencement.

Trust is built in the form of what Sztompka (1999) calls virtual personal trust. More than anything it is thus important that producers are able to present their products and production practice via online media, because that is the platform of engagement in this network. Labeling and control schemes are also important for producers, since consumers often have no direct access to monitor production, but it functions more as a basic quality assurance. The quality is not visible to consumers upon purchase and one “bad apple” will have detrimental effects on the consumer’s perception of their business because they rely on the producers to sell products with the quality they expect. If consumers are discontent they also have an efficient platform for showing this. Building trust for an online business platform therefore requires good skills in managing the expectations of the consumers and to not raise expectations which cannot be fulfilled. It also requires a physical presence at food festivals, farm fairs and such like, so consumers are able to get familiar with the business and its values.

Producers in this network are diverse and cover a both local and national network, which is also reflected in many different production strategies. Among the producers we interviewed who act at the local and regional level producers and products are quite diversified, much like the personifying market agencement, but associated with a different service embedded into the products. Among producers acting at a national level production strategy tend to be dedicated much like those at the gourmet market, selling processed long-lasting, products like sausages, charcuterì or other specialty products.

Quality, trust and production strategies in the aesthetifying market agencement
The aesthetifying market agencement build products with unique qualities, like gourmet products retailed for instance through delicacy shops and supermarkets deli sections. Rather than competing on price with competitors this market agencement is characterized by actors who are trying to develop products with unique characteristics, which cannot be reproduced, inherent for instance in a concept like terroir. Products are typically highly processed, like sausages, charcuterì, dairy products, and flour from old grain varieties. Similarly the market for gourmet products is rarely at a local scale only. The story of one of the farmers is instructive; first he initiated a small dairy producing high quality cheese, which he tried to sell from a farm shop in the countryside. After 3 years he went bankrupt because he could not sell enough cheese. After the bankruptcy he formed a new company with the same equipment, but this time in collaboration with a much larger dairy, sharing labor and using their sales network, and is now a success story.

Gourmet products are considerably more expensive than similar products in the same categories and the market is rarely local in scale, it is therefore a challenge for the producers to build trust and a perception of superior quality from a distance. Since uniqueness rather than uniformity is an important parameter it is important for the producers to communicate how seasonality, specific locality, breeds or varieties is influencing the product characteristics. Some of these qualities are not directly observable and the consumer needs to be trained in both tasting and the production
process in order to appreciate the quality. It is therefore crucial that this information is mediated along with the product; otherwise it becomes meaningless and insignificant. Independent actors like chefs, nutritionists or butchers are often enrolled to appraise the qualities and uniqueness of the products, but also non-human actors like place based narratives, designed wrapping and rare ingredients which carries specific narratives. Gourmet products depend on the external endorsements for establishing the process of qualification and trust building. Trust is therefore not only displayed towards the producers and production as such, but rather towards the whole qualification process and the actors which are mobilized. Labeling and control schemes is just one dimension of the qualities of the products, for some products it is a basic quality parameter on top of which the additional qualities are added, in other cases labeling is indifferent because it is only able to indicate a minimum standard and not underscore the uniqueness of the product.

Building gourmet quality is resource consuming, because the actions of many actors need to be coordinated and thus requires a long term commitment. When the production becomes attuned towards the aesthetifying market agencement, changing the strategy is difficult. Producers therefore need to be dedicated towards their products and align all the actors in the network towards building the specific product. Producing gourmet products requires strong control of other actors in the network because all must work towards the same quality ideals. At the same time many actors will often be required because different specialty functions need to be performed and integrated. As one actor of the aesthetifying market agencement remarks: “From field to fork is the most important principle to what we do. We would like to control the whole process. We have realized, that we want to compete with the best in the world and therefore we would like to control that all the links in the chain”.

Discussion
The farmers interviewed all share an orientation towards the market. All consider the ability to sell the produce as a fundamental task of being a farmer. Their ideas about the market however differ considerably. In the following section we will look further into the different perceptions of the market and the relation between market agencement, quality, trust and production strategy, table 2 summarizes the findings of the four market agencements.

Building quality - dynamic relations
The paper demonstrates that quality cannot be understood separately from the social relations entangled with the products. Materially the same products might be transferred at different markets, but being embedded with different social relations it is still not similar, and the different social relations gives different meanings to the products. Many producers have relations with multiple market agencements and this seems to create synergy for the producers, because they are able to produce and transfer a broader set of qualities. Farmers who produce milk for the standardizing market agencement, for instance also raise bull calf’s for local consumption and many farm shops or participants at farmers markets also have an internet shop, which gives them a chance to familiarize and interact with their customers face-to-face, while also being able to deliver a convenient service once a good relation has been established. Acting at multiple markets is also a strategy for risk spreading, in particular for producers who acts at markets which are somewhat unsecure, like farmers markets where sales depends on attendance and producers might end up with too much of a certain crop.

Building trust - expectations and consumers relations
The social interaction varies with the market agencement and that gives rise to different expectations and relations of trust between producers and consumers. Virtualizing Producers face different expectations in the different markets, because the expectations relate to the specific qualities which are produced in each market agencement. If producers act at a specific market they will
also need to fulfil these expectations otherwise they will not be able to act in that market for long. Consequently different mechanisms for generating trust are applied in the different markets because interaction varies and trust serves different functions in each market agencement.

**Production strategy – alignment with the market**
The paper demonstrates a congruency between the market agencement and the production strategy. Market agencement sets condition for the production, but also that the relation is not unidirectional from the market to the producers, production also conditions the market. The production strategy needs to fulfill the expectations of the different market agencements in terms of qualities and trust. The production strategy is the outcome of a complex decision-making process, influenced by multiple factors, like personal values and visions for the farm, economy, available technology, capability and identity as a farmer, willingness to take risks and of course the current market conditions. It is however important to point out that the decision is taken consciously by the producer. Assuming a causal market impact is too rigid, producers are also co-producers of the market and select the market based on what production strategy they wish to follow.

Table 2: Summary of the results

<table>
<thead>
<tr>
<th>Market agencement</th>
<th>Examples</th>
<th>Qualities</th>
<th>Trust building</th>
<th>Production strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standardizing market agencement</strong></td>
<td>World market</td>
<td>Build through standards labeling</td>
<td>Bound to labels &amp; no interest in building</td>
<td>Adaptable, large scale, complying with</td>
</tr>
<tr>
<td>Low cost arrangement with specified</td>
<td>Discount supermarkets</td>
<td>and visual inspection</td>
<td>trust relations</td>
<td>standards, short term commitment</td>
</tr>
<tr>
<td>product characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personifying market agencement</strong></td>
<td>Farmers market</td>
<td>Qualities negotiated directly</td>
<td>Personal trust build in direct interaction</td>
<td>Diversified and small scale, long term</td>
</tr>
<tr>
<td>Face-to-face interaction</td>
<td>Farmshops</td>
<td></td>
<td>at farm or market</td>
<td>commitment</td>
</tr>
<tr>
<td><strong>Virtualizing market agencement</strong></td>
<td>Box scheme</td>
<td>Convenience and information qualities build via</td>
<td>Trust as virtual personal trust, indirect interaction, word of</td>
<td>Diversified and small scale or dedicated, long term commitment</td>
</tr>
<tr>
<td>Delivery of unique and convenient</td>
<td>Food Communities</td>
<td>internet and word of mouth</td>
<td>mouth</td>
<td></td>
</tr>
<tr>
<td>service</td>
<td>Internet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aesthetifying market agencement</strong></td>
<td>Delicacy shops</td>
<td>External qualification process/alliances</td>
<td>Mediating quality and trust using package, internet or network</td>
<td>Dedicated, long-term commitment and above standards</td>
</tr>
<tr>
<td>Products with unique characteristics</td>
<td>Deli sections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and dedicated production</td>
<td>Restaurants</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion
The Danish market for organic produce have undergone significant growth in the past 10 years and the four different market agencements have evolved during this development, responding to different pressures like increased demand for organic produce, changing consumer preferences, but also changes in goods supplied. Furthermore the Danish market has not evolved in isolation from the organic food market in Europe, the import and export has also increased quite significantly during the period. The development has enabled producers with the capability and motivation for developing more large-scale organic productions, but the growing market has also enabled the development of a niche sector which has developed new qualities. This alternative to the mainstream are not necessarily small scale and artisanal farmers, but can also be relatively large producers exploiting the possibilities in the market via alliances with actors in the retail sector. The markets therefore have co-evolved and conventionalization is therefore not the inevitable consequence of a growing organic market. Rather than describing the development as conventionalization it can better be characterized as a diversification, since today there is a greater variety in product qualities and producer/consumer relations.

The paper demonstrates that the organic market cannot be understood as one single market, there are multiple different markets, which are diversified in terms of both the qualities which are transferred, the relations of trust underpinning the market and the production strategy of the farmers participating at the market. It is thus important to distinguish between different markets and explore what opportunities the different markets offer. As shown here the concept of market agencement provides an opportunity for exploring the processes whereby quality, trust and production strategy is negotiated and thereby also describing the difference among markets, as well as the significance of this difference for the actors in the network. The paper indicates that when the conditions for the production of a specific quality become unfavorable for a producer, three choices are available, adapt to the market, leave the market or explore or build a new market. Some producers therefore also attempt to “grow” markets that are able to transfer the goods they produce.

References


DST. (2012). Danmarks Statistik. Available at http://www.statistikbanken.dk


