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The Organic Food Market: Opportunities and Challenges

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1. Introduction

Nowadays, most environmental challenges that humanity is facing relate to unsustainable consumption patterns and lifestyles. Sustainability is seen in this context as a consumption pattern that meets the needs of present generations without compromising the needs of future generations (Bruntland, 1987). This is also related to basic needs such as food. The present food chain is mainly based on food scarcity, GMOs, use of pesticides and antibiotics, and industrialization of the agricultural system. Growing consumer demand for organic food (OF) is based on most of these facts (Davies et al., 1995; Chryssohoidis and Krystallis, 2005). Organic production combines best environmental practices, preservation of natural resources, animal welfare standards while ensuring no use of genetic engineering, pesticides, additives, or fertilizers; each stage of the organic food production being controlled and certified. On the other hand, there are some unique challenges to the cost and logistics of moving locally or regionally produced organic foods to the market. Of particular interest is the concept of food mileage[1] and the situation of small and medium size farms. At this time production of such farms is rather limited amounting to a few hundred tons. Such a volume will be of little interest to mainstream grocery chains. Moreover, consumers seem to be ambivalent about channels of distribution. Trust/mistrust emerge as an important factor in deciding not only where to buy OF products but even whether to buy OF products or not. Therefore, food mileage, price, and the certification process could contribute significantly to OF consumers' consumption decisions of OF products. Finally, the challenge that the organic food sector is currently facing is a gap in the knowledge that spans between the marketing system in place, the value chain, and the value delivery network in the organic food system.

This chapter introduces the current literature and current market realities of the OF industry and presents a supply-demand model. This model integrates both demand and supply side key factors and is built to answer the questions of what, how, where and why consumers buy organic. The authors also attempt to show how the combination of (1) behavioral factors such as knowledge and trust orientations, (2) lifestyle factors such as principle oriented standard of living and sustainability, and (3) local food/food mileage factors such as

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[1] The distance food travels from the production site to the final consumer. The more food miles that attach to a given food, the less sustainable and the less environmentally desirable that food is.

support for the local economy and food's country of origin, interact and explain the complex organic food consumer behavior. Last, the chapter focuses on explaining the decision making process of organic food consumers by characterizing the differences between market clusters.

2. General trends

2.1 The organic food market

The organic market is moving from a niche market to a mainstream market within the agricultural industry, and was originated in the nineties (Agrifood Canada, 2011). It following a number of food scares in the conventional sector. The global market for organic products approximated US $18 billion in 2000 then US $23 billion in 2002 and has increased by 43% reaching US $33 billion in 2005, and US $50 billion in 2008 (Willer and Yussefi, 2007; Van Elzakker and Eyhorn, 2010). Double-digit growth rates were observed each year, except in 2009 because of the world economic crisis reducing investments and consumer buying power (Willer and Kilcher, 2011). Further, there are 633,891 farms managing 31 million hectares of "organic" land (Willer & Yussefi, 2007). More specifically, Oceania and Europe account for almost two-third of the world's organic land; 39% for the former and 23% for the latter. At the country level, Australia (11.8 million hectares), Argentina (3.1 million hectares), China (2.3 million hectares) and the US (1.6 million hectares) have the greatest organic areas. These figures[2] translate into a total of 130 countries producing certified organic food, 90 of which are developing countries presenting ideal environmental conditions for the development of satisfactory organic produce. There were almost 1.9 million organic producers in 2009, an increase of 31% since 2008, mainly due to a large increase in the production in India. As a matter of fact, 40% of the world's organic producers are in Asia, followed by Africa (28%), and Latin America (16%). In North America, Canada allocates 0.7 million hectares to organic production while the United States has 2 million hectares. This represents 7% of the world's organic agricultural land.

Although organic agriculture is now going mainstream, demand remains concentrated in Europe and North America. However, these two regions are not self-sufficient because production is not meeting demand. It is also obvious that the supply is not located where the demand is. Most of the demand is coming from Europe and North America. Hence, large volumes of organic imports, coming in from other regions, are used to balance the undersupply. In Europe, sales of organic products approximated € 18,400 million in 2009 (Willer and Kilcher, 2011). The largest market for organic products in 2009 was Germany (5.8 billion euros) followed by France (3 billion euros) and the UK (2 billion euros). US sales of organic products grew in 2009 by 5.3%, to reach 26.6 billion US dollars, representing 3.7% of the food market. On the Canadian front, the report of Agri-Food Canada in 2010, based on the 2008 sales of organic foods, concludes that the total Canadian organic market approximates CA $2 billion annually (Willer and Kilcher, 2011). Further to this, sales growth rates by Canadian provinces are distributed as follow: Alberta (44%), British Columbia (34%), Maritimes (34%), Ontario (24%), and Quebec (21%) (Macey, 2007).

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[2] Survey conducted in 2009 by Research Institute of Organic Agriculture (FiBL) and the International Federation of Organic Agriculture Movements (IFOAM).

2.2 Sustainability, local food, and organics

Nowadays, sustainability is becoming one of the main social issues in the business field. Pressure from investors, cuttings on production costs (eg. Walmart), development of a positive image, and being able to charge more for organic foods is prompting large grocery chains to go sustainable (Saha and Darnton, 2005). The issue of sustainability is also analyzed by Jones et al. (2001), concluding that corporate social responsibility in the food retailing industry is translated in terms of support for local food producers, fair trade, healthy eating, commitment to organic products, and help for the local community. For many consumers, the support of local farmers is considered a socially responsible behaviour and partially reflects the belief that OF is locally grown (Hughner et al., 2007). An increasing number of organic shoppers emphasize that local foods and sustainability are in direct relation with their motivation to buy organic food (Zepeda and Deal, 2009). Environmentally conscious consumers are willing to pay a much higher price for sustainable products such as organic and locally-produced foods as ethical considerations are becoming important factors in their decision making process. This encourages organizations to embody corporate social responsibility. It is important to state that there are two sets of consumers: hardcore OF consumers and regular OF consumers (Hamzaoui and Zahaf, 2009). The latter type of consumer is seen as a consumer that buys OF for health or taste reasons, while the former is depicted as an active consumer buying OF for environmental and ethical reasons, along with some health reasons. In other words, the hard-core consumer is commited to the environment whereas the regular consumer is commited to personal health.

It is important to note that despite the fact that organics have gone mainstream, there is a new trend amongst hard-core consumers regarding the rapid growth of "industrial organics". This trend is based on a viral and emergent discontent among consumers regarding how the organic food system is evolving (Bean and Sharp, 2011). The main critics are not related to the key elements in the current definition of organics. On the contrary, these concerns are directly related to some economic, environmental and social ideals such as production systems, size of the operations, distribution systems and channels, and capital intensity. The by-product of this situation is what Bean and Sharp (2011) call alternative food systems (AFS). They examine two pathways for achieving sustainability, and propose a comparison among different types of local and organic food consumers in terms of attitudes about food, agriculture and the environment. This helps to understand alternative food consumer's preferences and how these preferences create new demand in the market. Hence, AFS are seen as sustainable and economically, socially, and environmentally more viable than standard systems. Innovative food systems, such as local farmers' markets, are based on low-carbon food distribution systems and could be also classified as AFS. The slow food movement is another good example of AFS.

3. Supply side factors

3.1 Channels of distribution

The organic food industry is steadily moving from niche markets, e.g., small specialty shops, to mainstream markets, e.g., large supermarket chains (Jones et al., 2001; Tutunjian, 2008). Ten years ago the bulk of OF sales were made in specialty stores (95%) while the remaining 5% were realized in mainstream stores. Nowadays, the trend has been reversed (Organic Monitor, 2006). In some countries, distributors are promoting their own line of OF products

under specific brand names (Rostoks, 2002; Tutunjian, 2004). Alternative distribution channels are being used and are characterized by a direct link between the producer and the consumer, eg. farmers' markets (Smithers et al., 2008).

In the United States organic meat and dairy are experiencing the highest growth rates, 55.4% and 23.5% respectively (Willer and Kilcher, 2011), while organic flowers and pet food saw the highest growth rates for non-food categories. Conversely, in Canada and according to Macey (2007), total mass market sales of certified OF products approximated CA $586 million allocated as follow CA $175 through small grocery stores, drug stores, and specialty stores, and CA $411 in large grocery chains. These figures do not account for the alternative distribution channels such as farmers' markets, natural food stores, box delivery, and other channels such as restaurants. These channels totalize CA $415 million (Macey, 2007). This is also related to the structure of the current distribution systems. Hence, the pattern described in the previous section is clear. There are 2 main trends of consumption (i) regular OF consumers using standard distribution channels (supermarkets) and (ii) hardcore consumers adopting alternative channels (box delivery, farmers' market, specialty stores, and small grocery stores). According to Smithers et al. (2008) direct channels such as the farmer's market is targeted toward consumers that look to interact – socially - with the producers, ask them question about their production methods, food origin and variety, and cooking tips. On the other hand, conventional distribution channels, characterized by longer channels where consumers do not see and interact with the producer and where the information about food is limited, is targeted toward consumers that look for a one-stop grocery shopping experience. Distinct trends are thus observed in the organic food distribution. Each trend has its own development strategies but caters to consumers having different OF consumption motives, and base their choices on different sources of information and trust dimensions. Therefore, studying trust orientations regarding OF points of purchase along with trust toward brands, certification and labels, is very important especially knowing that the recent increase in OF consumption showed that it is strongly related to the consumers' trust in their food.

3.2 Certification and labeling: Building trust

Certification and labeling systems serve as tools to enhance distribution and market development, create trust, and foster confidence. It is a commitment from producers/farmers to work with certain standards of production. In 2009, the Canadian government implemented the Organic Products Regulation to regulate organic certification. In a nutshell, the new regulation requires mandatory certification for all agricultural products represented as organic in import, export and inter-provincial trade, or that has the federal organic agricultural product logo. This new certification logo has been recently created at the national level as a first step to standardize all certification processes across the country. According to Willer and Kilcher (2011), there are 80 countries using national standard of certification. The number of certified organic producers for the local market is growing and there are now Participatory Guarantee Systems (PGS) initiatives on all continents in terms of the number of farmers involved, with Latin America and India being the leaders. However consumers' confidence in certification standards in other countries and trust in their labels and products could be increased by the consolidation of standards and regulations between countries like Canada and the US, the world's first fully reciprocal agreement between regulated organic systems.

Issues of labeling and certification also still prevail, as many consumers are either unfamiliar with or confused by labeling due to lack of knowledge and their low ability to perform simple inference-making, leading to failure in decoding the information. Hence, consumers do not know to what degree they can trust certification labels. Nowadays, most countries have formulated standards for organic production and certification. This is considered as an important source of information about organic food quality and safety from the consumer's perspective (Hamzaoui and Zahaf, 2008). Just as branding of food products helps identifying the product to specific firms, organic labels are perceived as symbols of regulation, and therefore an important source of trust (Torjusen et al., 2004). There seems to be a need to make consumers trust both the product and any organism certifying this product. Public regulation and organic certification are traditionally a source of trust (Sassatelli and Scott, 2000), whereas a large number of private labels do not imply the same level of trust. Some countries use organic labels from different organizations as well as state labels. Switching to alternatives like adopting a single label at the national level (eg. in France) or regional level (e.g. in Europe) does not necessarily imply a better basis for label recognition and development of trust in these labels. With consumers wanting more in-depth information about the food and the food system, trust/mistrust in organic labels emerges as an important issue (Torjusen et al., 2004).

3.3 Country of origin and food mileage

Sustainable food systems represent one of the major innovations in the agricultural sector in the past decade (Thilmany et al., 2008). In fact, products labeled with credence attributes associated with local or organic food systems are enjoying high market penetration rates. However, food production and distribution patterns have undergone a major transformation. This has led to new market realities such as the importance of the country of origin and food mileage with regard to imported organic foods. For companies, ensuring sufficient supply volumes and supply continuity are becoming a major concern. Investing in developing countries is a mean to lock-in supply (Organic Monitor, 2006). In the case of Canada, imported organic products represent CA $252 million, of which 74% are from the U.S. The rest of imports is coming mostly from Chile, Mexico, China, Italy and Germany (Agriculture and Agri-Food Canada, 2008), with organic fresh vegetables and fruits being the largest imported categories (CA $223 million). From the consumer perspective, the origin of organic food possesses both predictive and confidence values (Luomala, 2007). This leads them to believe that they can make a reliable evaluation of food origin, and infer whether it is a good indicator for the desired product qualities, credible production control, and certification. Moreover, organic food imports also raise the issue of food mileage. This is directly linked to the sustainability of agriculture, as "organic food imports" do not match with local food production, freshness and community cohesion.

4. Demand side factors

Selecting food is one of the most common activities that consumers pursue many times each day. But this selection requires taking into account different goals (e.g. price and taste) and may involve a complicated decision-making process in order to satisfy these different goals. Different decisions with regard to organic food consumption will depend on internal and external factors affecting the decision process. Indeed, consumers might differ significantly

with respect to use of and trust in information cues on organic food, knowledge and behaviour towards organic food, as well as socio-demographic profile.

4.1 The organic consumer profile

Organic food consumers have been profiled using a variety of variables such as purchase intentions or usage rate (cf. Davies et al., 1995; Fotopoulos and Krystallis, 2002a). The segmentation has also been based on demographic factors, food-related lifestyles, attitudes toward OF and purchase intentions, and frequency of purchase (cf. Brunso and Grunert, 1998; Brunso et al., 2004). Some common results on the socio-economic profile of organic food consumers show that organic purchasing grows as consumers reach their 30s and have no children. People who are among the highest spenders on OF are on average more affluent and younger (Padel and Foster, 2005). But lower income housholds also purchase organic food when convinced that organic food is better quality. Organic food consumers can be classified as "classic" or "emergent" consumers. The former is well-educated, a professional or white collar worker, willing to pay a premium for organics and to search out sources of organic food products (e.g. producer or farm markets). The latter is also well-educated, a professional, commited to personal health, and shopping in supermarkets as convenience is an important factor in his/her purchasing decision. Leger Marketing found in 2004 that out of 3.3 million regular and several time buyers of OF, 1% purchased on every food-shopping trip, 17% purchased them often, and 37% rarely purchased OF. Despite these results, Tutunjian (2004) notices that OF consumers share attitudes and values rather than demographics. The purchase of organic food products tends to be based on reasons ranging from dealing with food allergies to valuing the philosophy upon which organic farming is based. Overall, redefining OF consumers profile helps to better address the specific values underlying their food consumption.

4.2 Motivations to buy organic

Growing consumer demand for organic food (OF) has been attributed to consumers' concerns regarding nutrition, health, the environment, and the quality of their food (Fotopoulos and Kryskallis, 2002b; Larue et al., 2004; Shepherd et al., 2005). Further, various studies conducted in Europe and the US have explored the OF consumer behavior and have tackled the issue of determining consumers' motivations and preferences for organic products (Worner and Meier-Ploeger, 1999; Zanoli and Naspetti, 2002; Wier and Calverley, 2002; Yiridoe et al., 2005). Although some organic consumers are environmentally conscious, most studies confirm the predominance of egocentric values like health, attitude towards taste, and freshness that influence OF choice more than the attitudes towards environment and animal welfare (Millock et al., 2002; Fotopoulos and Kryskallis, 2002a; Zanoli and Naspetti, 2002). On the other hand, the main reasons that prevent consumers from buying OF are expensiveness, limited availability, unsatisfactory quality, lack of trust, lack of perceived value and misunderstanding of OF production processes (Fotopoulos and Krystallis, 2002a, 2002b; Verdurme et al., 2002; Larue et al., 2004). In Canada, consumers identify health, the environment, and support of local farmers as principal values explaining their OF consumption (Hamzaoui and Zahaf, 2008). These motivations and values are leading OF consumers to accept large price difference between organic and conventional food products.

4.3 Willingness to pay premiums

In the literature, a large body of research is dedicated to consumers' Willingness-To-Pay (WTP) for environmentally friendly products (Baltzer, 2003; Krystallis and Chryssohoidis, 2005; Laroche et al., 2001). This WTP appears to be a general tendency, and despite the increasing availability of organic food products, there are few studies that examined the variability of WTP for OF products in terms of product categories and OF consumers segments. Consumers' willingness to pay more for OF products reflects the "true" value of that product. This translates into price premiums, or the excess price paid over and above the "market" price (Rao and Bergen, 1992). Hence, the equation for marketers is very simple: no chemical pesticides, no chemical fertilizers, coupled with certification allow for a premium price strategy (Van Elzakker and Eyhorn, 2010). As stated by Vlosky et al. (1999), price and WTP a premium price are crucial elements of the OF consumers' behavior. In general, one reason why consumers are willing to pay a premium is to ensure product quality (Hamzaoui and Zahaf, 2009). But consumers differ in their level of willingness to choose higher-priced products (Krystallis and Chryssohoidis, 2005). We can expect regular consumers and hard core consumers to have different willingness to pay for OF products based on their respective motivations: health for regular consumers and environment, support of local community and health for the hard core consumers.

4.4 Trust orientations

To facilitate decision making in complex food markets, trust is an essential element. In general terms, when related to food, trust is seen as "an expression of the alternative to have to make an individual decision, and just assume that food is safe" (Green et al., 2005; p.525). More specifically, there are particular information sources and organizations that are trusted to either provide safe food or to provide trustworthy information about that food. Considering the risks associated with product consumption, consumers will search for and adopt several risk reduction strategies (Mitchell and McGolrick, 1996; Brunel, 2003) such as brand image (Gurviez, 1999; Gurviez and Korchia, 2002), store image, or label references. These are all means to built trust in the product. Studying OF consumption, Sirieix et al. (2004) highlights two sets of trust orientations defined as indicators that consumers rely on in order to "trust": trust oriented toward several quality indicators, and trust oriented toward individuals. Therefore, trust can be oriented toward the brand, the label, but also toward partners like producers. Trust has been identified as an important strategic variable in the food industry (Bahr et al., 2004). Studying trust orientations is hence important to clarify the market position of organic products, sales channels and certification authorities. In fact, increasing OF consumption seems to be directly linked to consumers' trust orientations and values. Hamzaoui and Zahaf (2008, 2009) highlighted in their study Canadian consumers' concern about quality indicators of OF such as trust in the certification label, trust in the product's country origin, but also trust in the type of channels of distribution used.

5. Objectives

In order to target more efficiently consumers, we need to provide a more precise and useful profile of organic food consumers, who they are, what they eat, how they buy, where they buy, and why they eat organic. This will lead to an in-depth understanding of the organic

food industry, the major forces shaping it, and the current market structure, as well as an understanding of the challenges faced by the main players of the organic food industry. Moreover, it will provide a detailed assessment of the actual situation in the OF distribution system, i.e., superstores, specialty stores, and farmers' market. This will help to understand the importance of the value delivery network in creating value added to the OF supply. Hence, our objectives are:

i.   Assessing the importance of the channels of distribution, labeling and certification process and food mileage in the organic food market.
ii. Determining OF consumers' purchasing behaviour in terms of how OF consumers buy, where they buy, their sources of information, their trust orientations, and the trusted channels of distribution.
iii. Clustering OF consumers with regards to their psychographics.

6. Design and procedure

6.1 Design

To address the abovementioned objectives, a mixed design is needed. On one hand, we need to assess the supply side situation by conducting personal in-depth interviews with organic food producers, channel intermediaries, final retailers and certification bodies. On the other hand, we need to survey organic food consumers to assess their consumption behavior/patterns. For the supply side, in-depth interviews were conducted with store managers of superstores, specialty stores, and farmers' markets (producers) in Thunder Bay, Toronto, Ottawa, and Montreal. Interviews were based on an interview guide and lasted about 45 minutes to 1 hour. The guide probes various channels members, distributors, and producers of OF to discuss the actual structure of their distribution channel, their marketing strategies, and trust issues related to their distribution strategies. The interviews were recorded, transcribed, coded, and analyzed by the researchers using content analysis (cf. Kassarjian, 1977). Two separate judges coded the data.

For the demand side, a survey was administered to consumers in Thunder Bay and Ottawa. The population targeted for this study is OF shoppers. For purpose of gaining a good representation, respondents needed to fit within a specific profile. The idea was to select randomly organic food consumers that make their purchase mainly in specialty stores, grocery chains or local markets. Data was collected using two administration modes: in-person and online (using coupons with the survey URL). This helped to balance the proportion of consumers shopping in different channels of distribution.

6.2 Distribution interview guides

The first objective of this study was implemented using a qualitative design. A total of 42 in-depth interviews were conducted in Winter 2011 in different Canadian cities (including French and English speaking provinces). The objective is to determine and understand current and new trends in the organic food industry, the distributors' perceptions of consumers' concerns and level trust in organic food, and finally, how consumers' concerns are addressed. The interview guide is composed of three main sections. The first section deals with the structure of the channel of distribution while the second and third sections deal with how suppliers perceive consumers' demand and concerns. This three-prong interview guide helps to determine how distributors/suppliers manage similarities and

differences between what consumers want and what they offer them. Distributors were profiled as follow: (i) by channel size and type, (ii) by organic food products variety, and (iii) by channel position (retailer, wholesaler, etc.). All interviews were analyzed using content analysis (cf. Kassarjian, 1977).

6.3 Consumer survey measurements and scaling

To test the abovementioned 2nd and 3rd objectives, a structured questionnaire was designed to gather data that measure the variables used in this research. Prior to administering the survey, a pre-test was done and minor modifications were made. The questionnaire is structured into three sections. The first section deals with consumers' general opinion about organic food, consumption and shopping habits, and last, reasons for buying organic (measured on a 5 point Likert scale). The second section of the survey deals with trust dimensions (measured on a 5 point Likert scale). Finally, the third section is structured to design a socio-demographic profile of our respondents. Most of the questions in the survey were adapted from Sirieix et al. (2004), and Fotopoulos and Krystallis (2002). A total of 350 questionnaires were collected, and 324 questionnaires were usable. Data was cleaned and missing values were replaced using the mean. All variables were tested to check their internal consistency. Reliability tests were coupled to a series of factor analyses to determine the structure of the data. Factor analysis also helps to test if the items are measuring the right constructs. Results showed that Cronbach alphas were in the range of 0.727 to 0.850, which is good for an exploratory study (Hair et al., 2006). All variables except "trust" have a unidimensional structure with factors loading ranging from 0.583 to 0.893. Three dimensions were found for "Trust": (i) brand and store trust: trust in the brand and the store where the purchase is made, (ii) prior experiences: all information related to prior experiences with the product and involved in building trust with regards to trusted labels, brands, and points of purchase, and (iii) organic labels trust: unknown factors such as lack of credibility of the organic labels, meaning of "organic", and lack of trust in the quality stated in the organic labels. Hence, the trust scale has been split into three dimensions.

7. Supply side analysis: Qualitative study

In order to get a representative image of what the organic food distribution system looks like, several and various players in the organic food distribution channels have been interviewed. This includes: producers, farmers, store managers, distributors, wholesalers, and certification bodies representatives. This gives also a wider perspective on the structure of the organic food industry, the new trends in the organic food market, and the challenges faced by all channel members. Table 1 shows all themes generated from the interviews.

7.1 OF Industry and market

The first theme is related to the structure of the organic food industry. The guide probes the interviewee to describe the current situation of his/her distribution organization system, the organic food market and its negative/positive aspects. With this regards all channel members as well as producers see a big potential for this industry. From their perspective, consumers seem to be attracted by the healthy aspect and nutritional value provided by organic foods, while corporations and distributors are attracted by the profitability of this growing market. Further, consumers are becoming more educated about organic foods and

THEMES	SUB-THEMES
Current OF market	Unstable supply/availability
	Pricing
	Supply Driven by demand
	Consumer's education
	Better quality
OF brand growing	Positive branding
	More choice for the consumer
Trends	Local food
	Environmentally friendly
	Gluten free produce
	New product lines
Distributor's Channel	Depends on the direct last channel members
	Differentiation
	Get most information about the market from the delivery companies
	Grocery chains vs specialty stores
Feedback/Expectations	Bottom-up communication
Demand	Education
	Growing
Changes in OF consumers	Definition of organic
	Smarter consumers
Reasons to buy	Health
	Environment
	Taste
Concerns	Not in store
Types of consumers based on trust	Trust labels/not trust the labels
	Clear differences
	Brand name
Increase trust	Pricing accuracy
	Knowledge of clerks / advices
	Educating consumers
	Quality
	Knowing the producer
Sustainable development	Very important
	Not dangerous
	Will be a condition to access the market
	A way of differentiation
	Could be used to increase trust
	Competitive advantage

Table 1. List of Generated Themes

they are asking for more organic products, "*I think, with more and more research, healthy eating takes place. Consumers are becoming more educated and with that are making better decisions for themselves and for their loved ones*". This new type of consumer is willing to pay high

premiums, up to 100% (cf. Hamzaoui and Zahaf, 2009). Since OF are premium priced products then the *expected* performance of these products is higher then regular products.

Having said this, there is clear-cut in the respondents' perception of the OF industry and market. The shorter the channel of distribution (sales at farms gate, direct from producer/farmer), the simpler the logistics. The trust relationship between consumers and these sellers is very strong and is based on direct knowledge of how the product is grown, how it is certified, and marketed: "*trust can be increased by advice, and more importantly the relationship established with the consumer*"; and more importantly it is based on the direct impacts on the local economy and the environment. Food mileage and local foods are the most important new trends described by channels members: "*They would like organic local… they also go for local because they know where it's from*". Consumers using short channels look for different product attributes and have different motivations than consumers using standard channels of distribution, eg. grocery chains.

The OF market is growing and new product lines with additional attributes are emerging: organic products that are local or fair trade. Organic is becoming omnipresent in the food market. It targets all consumers as well as actual regular OF consumers and hardcore consumers. Because of their motivations and ethical values, they are interested in fair trade organic products or local organic products. These differences lead to a distribution system based on different channels: organic foods are mainly sold through standard channels of distribution, whereas fair trade and local organic food require shorter channels. Weekly baskets delivered to hardcore consumers seem to be the best way to satisfy these consumers looking for ethical organic products: "*a basket delivered weekly is a key to have products that are organic and local*". It is clear that the OF supply is driven by the new trends in the OF market.

7.2 Current distribution system

The second theme deals with the channel members' perception of the industry, the distribution system, and their distribution structure. Results are consistent with the first section of the interviews. All channel members from various channels agree to say that consumers are becoming more educated and make smarter food choices. However, there are clear differences in their purchasing behavior. Shorter channels managers stated that consumers buying at their point of sale have certain needs and certain motivations to buy organic foods. Conversely consumers buying from longer channels are looking for a different shopping and consumption experience. This is directly related to the OF adoption process. Consumers trusting the labels and certifications are either in the interest-evaluation-trial phase while consumers trusting stores are in the adoption phase. In fact, there are different levels of trust according to the channel members: trust related to the labeling and certification, trust related to the channel of distribution, and trust of the producer.

7.3 Sustainability

The third theme deals with (i) the importance attributed to sustainable development in the OF industry, (ii) if sustainable development may be considered as a competitive advantage in relation to organic food, and (iii) if it can increase consumers' trust in organic food products. Generally speaking, there is some consensus among the interviewed suppliers on these three aspects. The importance attributed so far to sustainable development is not really strong with few exceptions. Adding the sustainability claim to organic seems difficult to

justify as organic still has a long way to go, especially for regular and emergent OF consumers: "*You need to educate before going with new ideas and you need to better develop consumers' knowledge in organic before*". Respondents from specialty stores as well as supermarkets agree that this "sustainability" aspect of the product is not targeting every consumer that wants to eat healthy and is still learning about organic. Some respondents consider that sustainability can constitute a competitive advantage if the targeted consumers are the ones already caring for these characteristics, in other words hardcore consumers that highly value the environment. Specialty stores representatives highlight the importance of the origin of the product more than the general concept of sustainability: "*where it comes from is more important*"… "*having local products and knowing the origin is the most important thing for organic*". Skepticism is what emerges from the interviews as (1) most respondents highlight that it will bring confusion because consumers will get too much information on top of all what is related to organic, and (2) it is not sure as how much it will add to organic and how organic will be defined within these new attributes and claims. Indeed, when confronted with too much information, there is a risk of information overload and potential adverse effects because of consumer misunderstanding.

8. Demand side analysis: Quantitative study

8.1 General profile of organic food consumers

Our sample is composed of 324 consumers. In a first step, consumers are classified as follow: if respondents buy organic at most once a month then they are classified as non-regular organic food consumers (non-RC) while if they consume organic food very often then they are tagged as regular organic food consumers (RC). This is a basic grouping method (Cunningham, 2001). Accordingly, respondents are distributed as follow: 62% of RC and 38% of non-RC. Further, the typical profile of our respondents is: female (69.7%); aged 25 to 35 years old (49.1%); single (34%) or married (37.7%); household composed of 2 to 3 persons (47.8%); have at least an undergraduate degree (69.9%); works as a professional (26.9%) or is white collar (22.8%); buys at least 2 organic food products (90.8%); eats mainly organic fruits and/or organic vegetables (24.1%); buys organic food mainly from supermarkets (31.2%); spends on average $100 in organic groceries (58.4%); considers nutritional value, freshness, healthiness, and taste as the major factors for buying organic food product; and finally is happy with his/her organic consumption experience (90.8%). Cross-tabulations with Chi-square testing were used to explore the relationships between the main different indicators. Results show that age as well as monthly spending, satisfaction, and OF product category are good predictors of the type of consumer. 35% of non-RC spend at most $100 in OF groceries while only 25.1% of RC spend the same amount. Further, 31.4% of RC have a monthly spending in OF groceries of $100 to $400. This is explained in part by the type of

Product Category	Non-RC	RC
Dairy	8.3%	41.9%
Fruit	27%	59.7%
Bread	11.1%	46%
Meat	7%	27.9%
Vegetables	28.3%	57.5%
Prepared food	8.6%	36.5%

Table 2. Purchase Distribution for RC and non-RC per Food Category

products bought by these consumers (cf. Table 2 for more details). All OF categories are evenly represented for RC while most non-RC buy mainly fruits (27%) and vegetables (28.3%).

8.2 Trust orientations

There are three dimensions of trust considered in this research: (i) trust towards the brand/store, (ii) prior experiences with OF and (iii) organic labels trust. We ran a three t-test for independent samples to uncover differences/similarities between the RC and non-RC on the trust dimensions. The results are conclusive for the organic labels trust, and brand and store trust (cf. Table 3). This means that RC and non-RC perceive differently the organic labels trust in terms of credibility of organic labels, meaning of "organic", and lack of trust in the organic label claims. Moreover, non-RC show a higher degree of uncertainty on all trust items in comparison to RC. This was somehow expected as non-RC are still unsure about what organic is.

Trust Dimensions	Consumers	Mean	t-test Significance
Brand and Store	RC	3.533	0.138
	Non-RC	3.415	
Organic labels trust	RC	2.643	0.000*
	Non-RC	3.116	
Prior Experiences	RC	3.280	0.219
	Non-RC	3.195	

Table 3. T-tests for Levels of Trust *sig. at 5%

Moving to trust towards the brands and stores, we notice that even though there isn't any significant difference between RC and non-RC, both types of consumers score high (5 point Likert scale). This means that RC and non-RC trust the brands and the store from where they buy OF products. In addition, it is important to note that all consumers score high on the trust dimension related to prior experiences. Hence, RC and non-RC have the same – relatively high - level of trust when it comes to their prior experiences with the store and organic labels. This is directly related to consumers' loyalty and their habitual purchase pattern, i.e., a consumer wants to use the same point of sale and same product/organic label if they are satisfied with their purchase. In order to test this, we explore the relationship between consumers' satisfaction and their prior experience for building trust. The chi-square test was conclusive (sig. = 0.000 < 5%) showing that satisfaction determines the type of consumers, i.e., RC or non-RC. Most of the RC are satisfied (38.3%) or very satisfied (59.7%) with their previous OF consumption while 52.6% of non-RC are satisfied with their previous OF consumption (only 25.4% of them are very satisfied). This difference might be based on the fact that non-RC do not exactly know what to base their satisfaction on as they are not as well educated as RC about organic food. Lastly, consumers consider that family, friends, and/or scientific articles are the most important sources of information on OF. Conversely, when asked to rank the most trusted sources of information, consumers listed small shops and consumer organizations as being the most reliable sources of information.

8.3 Channels of distribution

In order to understand where OF consumers buy and why they prefer some channels of distribution over others, we need to determine the most used channels of distribution. We

first tested the relationship between the type of consumer (*RC* versus *non-RC*) and most used channels of distribution using cross-tabs and Chi-square tests. Then we tested the association between trust orientations and choice of channels of distribution using t-tests (*channel users* versus *channel non-users*). This helps to understand who the users are: RC or non-RC; and their trust orientations.

8.3.1 Channel user/non-users vs OF RC/non-RC

Results from the cross-tabulations give the following distribution of OF consumers. It is clear that most RC buy from short channels while non-RC buy from standard channels. A more in-depth analysis of the most used channels and the most trusted channels is needed.

Channel of Distribution	Non-RC	RC
Supermarket	21.5%	17.6%
OF store	5.2%	16.9%
Directly from producer	3.6%	5.2%
Local market	1.6%	7.8%
Convenience store	1%	0.3%
Health food store	1.3%	11.1%
Home delivery	0%	2.6%

Table 4. Distribution of RC/non-RC by Channel of Distribution

8.3.2 Most used channels of distribution

A descriptive analysis of the data shows that 74.6% of all respondents buy at least from two different outlets. Further, the *most used* channel of distribution is the supermarket (31.22%), followed by the organic food stores (27.77%), and local markets (27.17%). As expected, RC consumers represents the largest proportion of channels' users for all channels of distribution. In order to test if trust orientations are associated with the choice of the channel of distribution, t-tests were run. Results are summarized in Table 5.

Table 5 shows that channel users and non-users of specialty stores and supermarkets have different trust orientations, i.e., prior experiences, organic labels trust, and brand and store trust. Conversely, there is no difference between the level of trust of users and non-users of local markets. Direct channel users and non-users have different levels of organic labels trust and prior experiences. This makes sense since OF consumers use direct channels – represented by farmers or organic producers - if they know who the producer is and what the products are. The purchase situation and framework in this case are very context specific, and hence consumers' trust orientation is based on a direct relationship with the producer. As far as the supermarkets go, the only important trust orientation is the one related to the store and the brand, which is in accordance with Sirieix *et al.* (2004) findings. The crux of shopping at supermarkets is that these channels of distribution are the most used point of sale because of their convenience, and may not be necessarily trusted. Further, Chi-square tests show that the only significant relationship is between on one hand, organic food stores users and non-users, and on the other hand the type of consumers, RC and non-RC. This means that the type of channel of distribution, and its users, does not determine the type of consumers (RC or non-RC) of that channel of distribution. To recapitulate, consumers' trust orientations determine their choice of the *most used* channel of distribution, and channels adoption is not related to the type of consumers.

	Trust Dimensions	Channel users	Mean	t-test Significance
Direct Channel	Prior Experiences	Users	3.102	0.014*
		Non-users	3.314	
	Organic labels trust	Users	2.682	0.048*
		Non-users	2.866	
	Brand and Store	Users	3.590	0.081
		Non-users	3.446	
Local Market	Prior Experiences	Users	3.270	0.522
		Non-users	3.218	
	Organic labels trust	Users	2.850	0.439
		Non-users	2.783	
	Brand and Store	Users	3.462	0.381
		Non-users	3.532	
Organic Food Stores	Prior Experiences	Users	3.354	0.001*
		Non-users	3.072	
	Organic labels trust	Users	2.707	0.001*
		Non-users	2.987	
	Brand and Store	Users	3.601	0.002*
		Non-users	3.306	
Supermarkets	Prior Experiences	Users	3.257	0.787
		Non-users	3.233	
	Organic labels trust	Users	2.804	0.843
		Non-users	2.822	
	Brand and Store	Users	3.425	0.008*
		Non-users	3.363	

Table 5. T-tests for Most Used Channels of Distribution   *sig. at 5%

8.3.3 Trusted channels of distribution

The most *trusted* channel of distribution is the organic food store followed by health food stores, and the direct channel producer-to-consumer. Interestingly enough, supermarkets ranked fourth ahead of local markets (all means higher than 3 on a 5-point Likert scale). Data has been recoded to address some of the complex issues related to distribution. Respondents were asked to assess seven OF channels of distribution using a 5-point Likert scale ranging from 1 = strongly disagree to 5 = totally agree. Each scale has been recoded as follow: high trust consumers (score 4 to 5) and low trust consumers (score 1 to 3). 12 t-tests have been run to determine if there is a significant difference between the level of trust and the trust dimensions (store and brand, organic labels trust, prior experiences) of the 4 major channels of distribution (organic food stores, supermarkets, direct channel, and health food stores). Results show that consumers trust all channels of distribution to certain degrees, but also that there are no major differences between RC and non-RC for all levels of trust and most channels of distribution. Consumers trust all channels of distribution but consumers' trust orientations intervene only when choosing to shop from an organic food store. Further, when it comes to the most used channel of distribution, it appears that trust orientations are the main cause for channels of distribution utilization.

8.4 OF segments
8.4.1 Profiling OF segments

A combination of usage rate, trusted points of purchase, and consumer's lifestyle has been used to cluster OF consumers (cf. Hartman and New Hope, 1997). In this study, all aspects related to community-supported agriculture, support for the local economy and cooperative growers, food mileage, as well as environmentally friendliness concerns will be referred to as consumers' lifestyle. This provides a more realistic idea of the OF market segments.

Segments	Acronym	Description	Percentage	Mean Range
True OF consumers	TOF	RC, high trust, and principle oriented	52.3%	3.27 to 4.54
Occasional OF consumers	SOF	Non-RC, high trust, and moderately principle oriented	36.4%	2.54 to 3.75
Inexperienced OF consumers	IOF	RC, low trust, principle oriented	11.3%	0.32 to 4.36

Table 6. Cluster Analysis for a Combination of the Variables

	TOF	SOF	IOF	Chi-Square
Gender	All segments are mainly represented by females			0.072
Age	Young consumers (25-45)	Young consumers (18-35)	Young and older consumers (25-35 and 55+)	0.000*
Marital status	Single-married-divorced	Single-married	Single-married	0.000*
Income	50-70K	30-50K	0-15K 70-100K	0.003*
Place of residence	Mainly downtown			0.001*
Level of education	University degree (undergraduate as well as graduate degrees)			0.000*
Occupation	Professionals	Professionals and white collar	Professionals, white collar, and students	0.000*
Monthly spending	81.6% spend $50-400	61.8% spend $0-50	23.5% spend $0-50 19.7% spend $100-200	0.000*

Table 7. Socio-demographics of OF Consumers and Tests of Association *sig. at 5%

Cluster 1 is composed of *true OF* consumers, or TOF, as they buy OF products frequently, trust almost all channels of distributions, and are principle oriented. Further, there are some variations in their trust levels per channel of distribution as they show moderate trust with regards to supermarkets (mean of 3.44 on a 5-point Likert scale), marketplaces (3.36),

convenience stores (1.94), and home delivery (3.27). *Sporadic OF* consumers, or SOF, are consumers who do not buy OF on a regular base. They trust all channels of distribution but have neutral attitudes toward supporting the local economy and the environmental friendliness of OF products. Conversely, *inexperienced OF* consumers, or IOF, are consumers who consume OF products on a regular base but do not trust any channel of distribution, as they don't feel confident when buying OF products in those points of purchase. However, they are principle-oriented consumers. It is important to note that that TOF have a higher frequency of purchase than IOF.

TOF, SOF, and IOF consumers have been profiled using the socio-demographics data. Table 7 depicts all socio-demographic characteristics of the 3 segments. We used relative measures, as there were missing values. It is readily seen that age, marital status, income, place of residence, monthly spending, level of education, and occupation are determinant of the OF clusters. However, results show also that gender is not a determinant of the segments (Chi-square test is not conclusive: sig = 0.072 > 5%).

8.4.2 Motivations

Consumers were asked to rate their reasons to buy OF. Generally speaking, they value health, taste, environmental friendliness, superior quality and the support of the local economy. A one-way ANOVA was run to test differences between the three segments (TOF, SOF, and IOF) with regards to the five reasons to buy OF. Overall, consumers in the three defined segments have different reasons to buy OF (cf. Table 8). It is also clear that TOF have the highest scores on all reasons to buy, with health, environment and local economy being the most important ones. Conversely and as expected, IOF score the lowest on all reasons to buy.

Reasons to Buy	TOF	SOF	IOF	Sig.
Health	4.72	4.35	3.95	0.000*
Taste	4.39	3.86	3.52	0.000*
Environment	4.69	4.35	3.94	0.000*
Quality	4.26	3.66	3.49	0.000*
Local economy	4.68	3.93	3.55	0.000*

Table 8. OF clusters and Reasons to Buy *sig. at 5%

8.4.3 Predicting consumers' membership

In order to assess the predictive power of each variable in predicting cluster memberships, a discriminant function analysis was run. This analysis is used to determine which variable(s) discriminate between two or more naturally occurring groups. For instance, after segmenting the market using cluster analysis, managers would like to know (i) how to classify new OF costumers according to a set of variables, and (ii) what variables allow the best allocation and targeting of OF consumers. This is achieved through discriminant analysis techniques. Results from Table 9 show that the frequency of OF purchases is the best predictive variable as it correctly classifies 71.2% of the respondents. It is clear that consumers in the three segments, i.e., TOF, IOF, and NOF, have a very complex psychographic profile. This should lead companies to use an optimal mix of variables. In our case, the combination of all variables provides 91.9% predictive power meaning that 9 consumers out of 10 are correctly classified if we consider a combination of the variables listed in Table 9.

	Classification accuracy	Discriminant functions	Wilks' Lambda	Significance
Reasons to buy OF	51.0%	1	0.818	0.000*
Trust (brand, label, store)	48.5%	2	0.835	0.000*
			0.965	0.005*
Support local economy	66.9%	1	0.777	0.000*
Environmentally friendly	64.9%	1	0.695	0.000*
Most used point of purchase	58.6%	1	0.377	0.000*
General attitudes	54.6%	1	0.809	0.000*
Sources of information	39.7%	1	0.903	0.000*
Trusted sources of information	33.9%	1	0.949	0.000*
Frequency of purchases	71.2%	1	0.587	0.000*
Combining all variables	91.9%	2	0.124	0.000*
			0.396	

Table 9. Discriminant Analysis for TOF, IOF, NOF

9. Discussion and managerial implications

The objective of the qualitative and quantitative studies conducted with various players of the organic food market was to gain a wider perspective on the structure of the organic food industry. This allowed us to uncover new trends in the organic food market and to assess the challenges faced by the organic food industry and its players.

9.1 OF market growth and supply management

All the players from the supply side interviewed for this study generally agreed that the market for organic products is growing and shows that it has a long life and substantial growth opportunities. More specifically they mentioned an increasing diversification of products and distribution channels. As mentioned by Zander et al. (2007) 'conventional' entrepreneurs and corporations have been attracted by the remarkable success story of the organic sector. The increasing number of distribution channels is mainly based on more supermarkets and food store chains offering OF products and widening their offer of organic food at more competitive prices. This is in accordance with Dimitri and Oberholtzer (2009) mentioning that the recent burgeoning of organic store brand products has contributed significantly to increase organic sales. Most conventional channels are increasing their organic sales using traditional marketing strategies for organic food, including organic versions of conventional brands. This is done to satisfy the needs of a wider number of OF segments.

From the producers and farmers perspective, being able to expand supply is a big issue that translates into poor supply reliability and poor availability at the demand level. Indeed, with the growth in popularity of organic food products, more wholesalers have entered the

organic food supply chain. They have been encouraged by chain stores that want to work through them because demand is up and they need larger quantities at regular delivery times. Consequently, imports from regions (eg. California) with large organic farming activities still prevails. This rises the question of what organic exactly is, if it is perceived as limited to local or if imports can also be considered as organic. Having different channels of distribution somehow addresses the different perceptions of the OF market segments on these matters. Farmers, local markets and specialty stores emphasize the origin of the organic products and provide complete information to OF consumers.

For supermarkets, the diversification of the offer is the main driver of the market growth. According to Padel (2005) the relationship between the organic suppliers and the conventional retailers in the mainstream food chain is a relationship between small and big volume actors. But for organic suppliers, the most reasonable access to consumers in many countries remains the conventional retailers (Bahr et al., 2004), highlighting an important need for closer collaboration between the supply chain actors.

From the organic food specialty stores' perspective (independent stores as well as chain stores), the organic market shows differences between supermarkets and specialty stores in terms of variety, price and quality. In other words, supermarkets are able to provide consumers with a larger variety, lower prices and convenience whereas specialty stores differentiate themselves with the quality and the origin of their products. As for producers, the main difference between suppliers is established in terms of short-direct / long channel of distribution, with producers offering traceability and quality.

9.2 Organic food consumers

Suppliers also provided their perceptions on several organic consumers' characteristics. For most suppliers, consumers are in general more knowledgeable and are looking for authentic products, health, quality, and taste. Their level of knowledge as well as their motivation to consume organic products seems to differ depending on the point of sale they mostly use. In other words, consumers buying from producers/farmers are clearly looking for proximity with the producer, fresh products and quality, and a better understanding of the organic process and show a clear interest for its impact on health and the environment. Consumers mainly using standard channels of distribution are looking for convenience, healthy products and taste. These consumers do not have a high knowledge of what organic is and seem to get confused between organic and natural products. Organic specialty stores describe their consumers as more knowledgeable and looking for health, quality and taste.

Trust is also of extreme importance in the organic food networks as its added value is mainly based on the production methods.

Several organic labels are present on the market. This induces some confusion, as consumers do not know which one(s) to trust. Therefore, the organic labels that should play a central role do not seem to have achieved that position in the OF consumers' decision-making process yet. Overall, distribution channels link consumers' trust in OF to different dimensions: organic labels, brands, traceability, advice, and/or store reputation. Because of the differences in these trust dimensions, providing standard information for all OF consumers may not be the best communication strategy based on consumers' specific interests and knowledge. For consumers' mainly purchasing their OF products in supermarkets, organic labels is mainly what they trust as well as organic brands (mainly store brands). This is in accordance with Sirieix et al. (2009) showing that OF consumers

buying in supermarkets rely on organic labels and brands. Consumers purchasing in specialty store trust the store itself, the sales persons' advices, the products' traceability (transparency of the supply chain) and to a much lesser extent some organic labels they know. Hence, communication on the products' quality and traceability, advices and information provided by store managers and sales persons (and store reputation) could increase consumers' trust in OF. For consumers purchasing from producers and farm markets, traceability is the main element of trust. Further, close and direct communication and relations between farmers and consumers would help maintaining and/or increasing trust as well as feedback on product quality and taste. In accordance with our results in terms of most used and trusted sources of information, these consumers subscribe to health and wellness magazines and read books on the subject (Zepeda and Deal, 2009). Last, brands are not a major factor that Canadian consumers can yet base their trust on. Finally, the issue of certification labels and related trust arises for the majority of consumers when considering imports of organic products, as other countries are indeed perceived as not meeting the same organic certification requirements as Canada. Imports also raise the issues of product quality, traceability and food mileage.

9.3 Growth perspectives and sustainability

Based on the supply side interviews, growth perspectives are directly linked to the challenges expressed by the respondents: maintaining and increasing consumers' trust in OF and in their distribution systems, and adapting their offer to new trends in OF demand. Results from the consumer survey also highlight two main new trends in consumer demand: food mileage and local foods. These new trends are more noticeable for OF consumers making their purchases in specialty stores and local markets rather than in supermarkets.

While sales of organically certified products have grown, the sector has to face new market entrants making green and ethical claims. In other words, the organic sector faces the challenge of an increasing number of other standards and brands competing for green and ethical segments in the consumer market. Zander and Hamm (2010) highlighted the interest of some OF consumers in several ethical concerns such as animal welfare, preservation of biodiversity, fair prices for farmers and local supply chains. But as shown by our results, only some ethical concerns are being actually considered by OF consumers, mainly hardcore consumers. Further, organic food is not yet frequently associated in regular consumers' mind with ecological and social sustainability.

The regular consumer is committed to personal health and being health conscious, sees the absence of chemical and pesticides on organic food as a reputation for quality. The hardcore consumer is committed to the environment, but is also concerned by the evolution of "industrial organic" and sees the locally grown foods and the development of local food systems as an alternative for a more sustainable food system. A new term has even emerged, "beyond organic", to describe the importance of other qualities than the ones defining what organic is. Food mileage, reliance on local resources and environmentally sustainable food production on top of health concerns are what makes the added value of these "beyond organic" products for hardcore consumers.

To recapitulate, the OF market is growing and new product lines are emerging and being marketed. We are moving slowly from a situation of exclusivity to a situation where all consumers in the market are targeted. Hardcore consumers are looking for "fair trade

organic foods", while regular OF consumers look for regular organic foods or at most local organic foods. This is very important to know by marketers and decision makers as it determines the real motives and reasons to buy OF and where to buy OF. Fair trade OF and local OF require very short channels of distribution; final prices are high; and the target market is small. Conversely, regular organic foods do not require short channels and are sold using standard channels of distribution. The direct consequence is a fast growing and profitable market segment using standard marketing tools.

10. Conclusion

Consumers' interest in organic food has exhibited continued growth for the past two decades, which has attracted entrepreneurs and corporations seeing a big potential for this industry. This led to the creation of standards and regulations to guide the OF industry. There are clear challenges on both demand and supply sides. Consumers are becoming more sophisticated in their purchasing decisions of OF, and companies are focusing on supply chain management in order to ensure high quality, traceability, and supply continuity. The OF industry also faces some other challenges: (i) maintaining and increasing consumers' trust in the OF products and the OF industry in general, and (ii) facing competition from other sustainability labels and initiatives. The OF industry and all its stakeholders will have to elaborate strategic responses to these opportunities and challenges. The results provide an insight into the structure of the organic food industry based on studies conducted with suppliers and consumers of OF products. The increasing number of OF consumers and the changes in organic product retailing still leads to an important imbalance between supply and demand high operating costs as well as poor supply reliability.

Our results also show that there are 3 types of OF consumers based usage rate, trusted points of purchase, and support for the local economy and the environment. True organic food consumers, or TOF, buy OF products frequently, trust almost all channels of distributions, and are principle oriented. Conversely, *sporadic OF* consumers, or SOF, are consumers who do not buy OF on a regular base. They trust all channels of distribution but have neutral attitudes toward supporting the local economy and the environmental friendliness of OF products. Lastly, *inexperienced OF* consumers, or IOF, are consumers who consume OF products on a regular base but do not trust any channel of distribution in particular but are principle-oriented consumers. All these market segments have different consumption preferences and hence, trust. They use differently the existing channels of distribution. When comparing the channels of distribution, it clearly appears that consumers buying from short channels have specific motivations to buy organic foods that differ from consumers buying from longer channels . This is directly related to the OF adoption process. It is also important to note that when it comes to the most used channel of distribution, trust orientations are the main cause of channels of distribution use. The most *trusted* channel of distribution across all OF consumers is the organic food store, then health food stores, and producer-to-consumer channel. When it comes to trust in organic labels, RC and non-RC have different views in terms of credibility of organic labels, meaning of "organic", and lack of trust in the organic label claims. Moreover, non-RC show a higher degree of uncertainty on all trust items in comparison to RC. Lastly, the organic claim itself still has a long way to go and adding the sustainability benefit can only bring confusion to most OF consumers. Having said this, suppliers clearly state that today what appears to be an important attribute

for an increasing number of OF consumers is the local origin of the organic product. Whereas purchasing local foods is a possible pathway for achieving sustainability, it is not yet perceived as the real mean to engage in consumption practices that lead to a more sustainable food and agricultural system.

The following supply-demand model is based on all the results of this study and summarizes the major findings. It is clear that the model is a first step towards understanding the OF market dynamics from the supply and demand sides. The model is simple but depicts the major trends and logistics in the industry. More works needs to be done in terms of having more exhaustive samples that allow to strengthen the model structure and render it more robust.
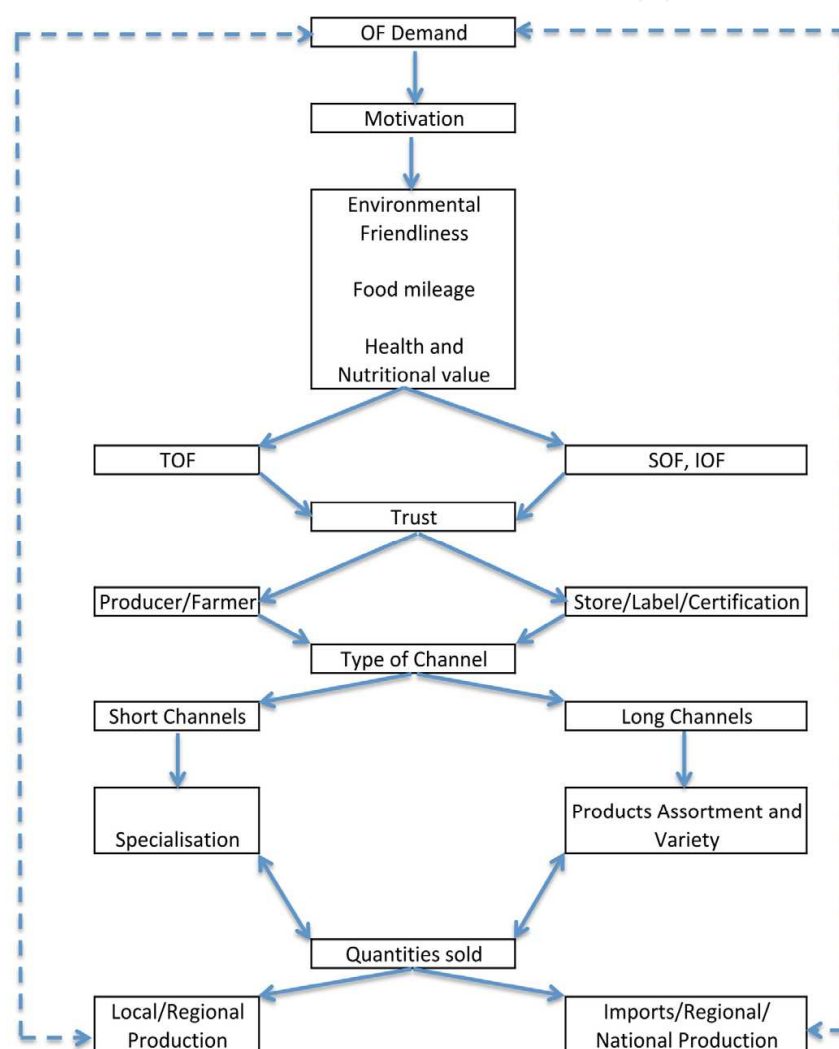
Fig. 1. Organic Food Demand-Supply Model

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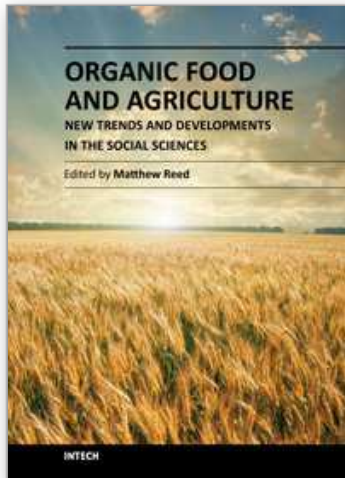
Organic Food and Agriculture - New Trends and Developments in the Social Sciences
Edited by Dr Matthew Reed

ISBN 978-953-307-764-2

Hard cover, 216 pages

Publisher InTech

Published online 05, January, 2012

Published in print edition January, 2012

The global phenomenon of organic food and farming, after three decades of progress, faces new challenges as markets mature and the impacts of the global recession start to change consumers and farmers' expectations. This global survey of the organic food and farming considers how the social sciences have come to understand in what way consumers make their choices as they shop, and how new national markets evolve. It also surveys how established organic sectors in North America and Europe are changing in response to the changes, that in part, the organic movement has created. Moving from a wide range of social science disciplines, methodologies and perspectives, this book represents an excellent starting place for new readers, and offers innovation to those already familiar with the literature.

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