

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900

Open access books available

186,000

International authors and editors

200M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Should I Buy Organic Food? A Psychological Perspective on Purchase Decisions

Christian A. Klöckner

*Norwegian University of Science and Technology
Norway*

1. Introduction

The individual consumer – although placed at the end of the production chain – plays an important role in establishing and developing the market for organic food. It is the final purchase in a supermarket, in a health-food shop or on a farmers' market that creates the demand that eventually sustains organic agriculture. Purchasing food is by no means a simple decision. It can be split into a series of interlaced decisions such as: When do I do my food shopping (e.g., after work, on a Saturday, under time pressure or not)? Where do I go (e.g., local supermarket, hypermarket, health-food store, farmers' market)? How much money do I want to or can I afford to spend? Which classes of products do I want to purchase? Within each class: what is the specific produce I purchase? Decisions made earlier in this chain impact the context of decisions made later. If for example a decision for shopping in a supermarket instead of a health-food store is made the variety of produces is different which impacts the produces that are taken into consideration. If food shopping is done under time pressure, time invested to make decisions is dramatically reduced and mental shortcuts or routines take control. Furthermore, the decision process might be non-linear, jumping back and forth between some of the aforementioned levels.

Psychological research has produced a large number of studies that allow insight into the complexities of this decision making process. It has been shown that consumers' purchase decisions at a given point in time and in a specific context are determined by a variety of psychological and contextual factors and their interactions. Some of them will be reviewed in this chapter. Based on previous research the following aspects will be discussed: How do values, attitudes and concerns for health or the environment impact the purchase of organic food? How do visibility, availability and perception of prices contribute? What is the role of trust? How can environmental and health psychological models contribute to understanding organic food purchase? How are organic food labels perceived and used in decision making? Finally, an integrated framework model will be suggested in the last section before drawing conclusions for future research.

2. General motives to buy organic food: Values, concerns and attitudes

One tradition in psychological research on the purchase of organic food produce focuses on identifying general motivations that may lead to favouring organic agriculture and eventually preferring the organic over the conventionally produced alternative when

making a decision. This research tradition has its roots in value and attitude psychology and assumes that value orientations and attitudes are important determinants of people's behaviour. Before analysing their impact on the purchase of organic food in more detail, the three core concepts of this section shall be defined and distinguished from each other in the first paragraph of each subsection.

2.1 Values

One of the most basic psychological concepts is a *value*. Schwartz (1994) defines values as *"desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity (page 21)"*. This definition outlines four important features that characterize values: (a) they define what is morally desirable to achieve for a person, (b) they are allocated on a very general level which makes them applicable across situation, (c) they may vary in importance between different cultures, people or situations, and (d) they motivate behaviour because they guide goal-setting and choice of action. Schwartz (1992) furthermore suggested a categorization of ten basic value orientations (power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, conformity, tradition, security) which has been widely adapted in cross-national studies as well as in various behavioural domains.

Grunert and Juhl (1995) applied the Schwartz value inventory in a study on Danish school teachers to determine the relation between basic value orientations, general environmental attitudes and organic food consumption. They were able to show that value orientations that fall into universalism were most characterizing for what they called "teachers with green attitudes", but also self-direction, stimulation and hedonism to a smaller degree. In a second step they demonstrated that "green" teachers much more likely occasional or regular buyers of organic food. Dreezens et al. (2005) used Schwartz' value system to analyse the relation between beliefs about organic food, attitudes towards organic food and basic value orientations. They found a positive relation between positive attitudes towards organic food and universalism and a negative with power. Furthermore, they could show that this relation is only indirect, mediated by beliefs about organic food (e.g., agreeing that organic food is good for the environment, tastes better, is healthier, etc.). The effects were of a moderate size. In a similar survey conducted with a population sample in Australia Lea and Worsley (2005) found that self-transcendence values – especially personally valuing nature, the environment and equality – were positively related to holding positive beliefs about organic food. However, the relation found was fairly weak. In a Norwegian survey Honkanen et al. (2006) found on the other hand a rather strong relation between the ecological shade of ethical food choice motives and a positive attitude towards organic food which eventually impacted the intention to buy organic food positively. Weak or no relations were found between political motives or religious motives and pro-organic attitudes.

In a qualitative study Makatouni (2002) analysed the value orientations that were relevant for preferring a variety of organic produce over their conventionally produced counterparts in a sample of British parents of 4-12 year old children. The most relevant value embraced was preserving health of themselves and their families, but also protecting the environment and animal welfare were values important to people that preferred organic food alternatives. Health protection would fall under the security value in the Schwartz system, animal welfare and protection of the environment would in Schwartz' understanding be

part of a universalistic value orientation. What is interesting here is that preference for organic food can be attributed to two very different, almost opposed value orientations. In a similar approach Baker et al. (2004) compared a sample of German with a sample of UK citizens in another qualitative study and identified health/enjoyment, belief in nature, and animal welfare as the most prominent value orientations driving organic food consumption in Germany, whereas in the UK health/enjoyment/achievement and respect for others/workers emerged as the dominant value orientations, interestingly omitting nature totally. Again the interesting finding is that organic food consumption can have motivations that stem from very different basic value orientations in the Schwartz system.

Two conclusions can be drawn from the analysis of the relations between values and organic food choice: (a) the relation is usually rather weak and indirect, mediated by other variables such as beliefs and attitudes, (b) different, sometimes even opposing value orientations are potentially motivating organic food choice. Some people prefer organic food because they value their health and believe in positive health effects of organic food (value dimension: security), some people prefer organic food, because they want to protect nature, animals, or workers (value dimension: universalism), some prefer organic food because of hedonistic motives (e.g., better taste).

2.2 Attitudes

Eagly and Chaiken (1993) define *attitudes* as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour (page 1)”. This definition names three key features of an attitude: (a) it is linked to an entity (an object, a person or a behaviour), (b) it includes a general evaluation of this entity as desirable or not, and (c) is a psychological predisposition that might or might not be expressed in certain behaviours. Fishbein and Ajzen (1975) conceive of attitudes as the general summation of all activated beliefs about the attitude object, with beliefs being the likelihood of a certain outcome of a course of action times its evaluation. Attitudes are in contrast to values connected to specific objects and therefore much less general and transsituational.

Already in the previous section attitudes were introduced as potential mediators between very general value orientations and consumption of organic food or at least the intention to do that. A lot of papers have analysed the relation between attitudes and purchase of organic food, the most interesting are outlining what the most important positive and negative beliefs about organic food and conventional alternatives are that constitute the attitude. A short summary will be given in the remainder of this section. Storstad and Bjørkhaug (2003) analysed attitudes among farmers and consumers in Norway and found that attitudes consisting of pro-environmental beliefs were the only psychological variable positively influencing the purchase of organic food. Pro-animal welfare attitudes were not important, basically because in the case of Norway also conventional agriculture has the image of being animal friendly (Nygård & Storstad, 1998). In a study with inhabitants on a small Scottish island Michaelidou and Hassan (2008) were able to show that the link between positive attitudes towards organic food and the intention to buy it was strong. Furthermore, they found that concerns for food safety, health consciousness and an ethical self-identity were components that significantly contributed to this attitude. Based on data from a national survey Onyango et al. (2007) identified the following food attributes as the most important components of a pro-organic food attitude in the US: (a) naturalness, (b) vegetarian-vegan, (c) production location, (d) familiarity (negative impact). De Magistris

and Gracia (2008) conclude in a study based on a survey in southern Italy that beliefs about positive outcomes for health and environment are the most important facets of a pro-organic food attitude and that this attitude is positively impacted by available information on the organic food market.

The aforementioned studies are just a small sample of the available literature on attitudes towards organic food. What becomes clear is that pro-organic attitudes are multi-faceted and many different beliefs contribute. Building on a literature review published by Hughner et al. (2007) figure 1 summarizes the most important beliefs that have been connected to organic food in previous studies and that contribute to forming an attitude towards organic food (e.g., Hughner et al., 2007; Storstad & Bjørkhaug, 2003; Michaelidou & Hassan, 2008; Onyango et al., 2007; De Magistris & Gracia, 2008; Schifferstein & Ophuis, 1998; Özcelik & Ucar, 2008; Padel & Foster, 2005).

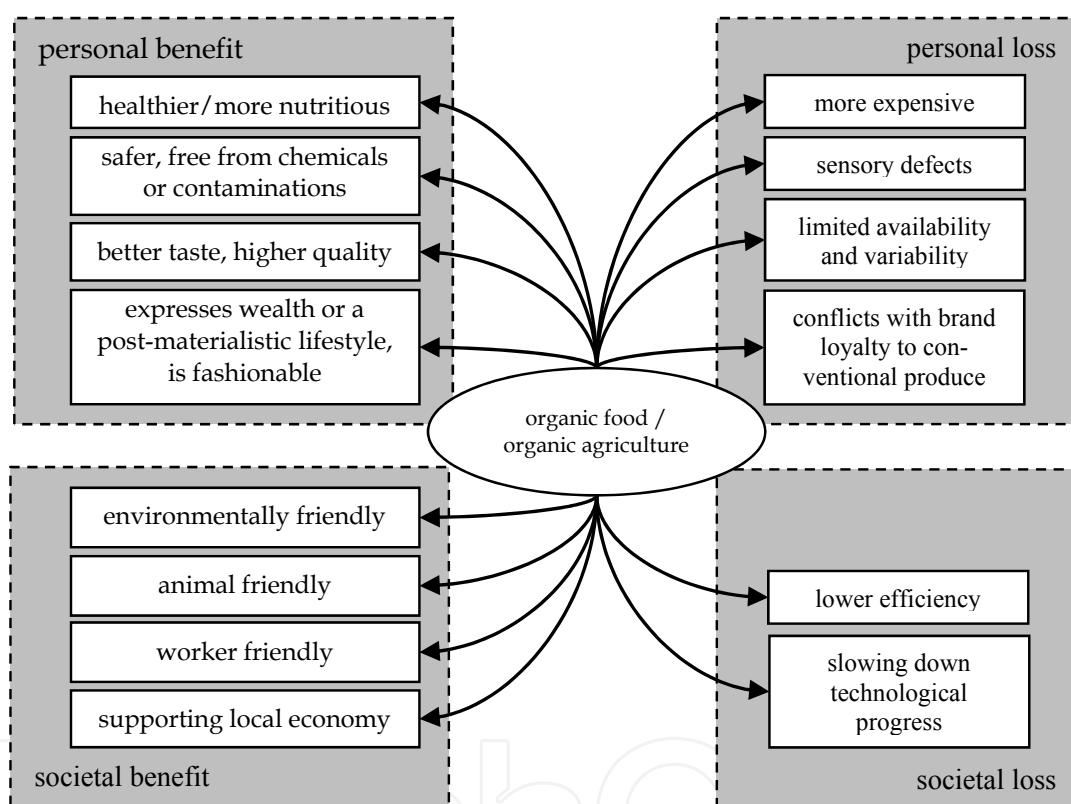


Fig. 1. Beliefs connected to organic food

In figure 1 the beliefs that have been previously found have been arranged into four groups: (a) personal benefits a person ascribes to the consumption of organic food, (b) societal benefits the person ascribes to organic agriculture, (c) personal losses that a person ascribes to the consumption of organic food, and (d) societal losses associated with organic agriculture. All of those aspects are subjective beliefs, which means it is irrelevant if the assumptions underlying them can be supported by scientific findings or not. Usually, anticipated personal benefits and losses are more relevant for behavioural choice than societal benefits and losses, but a strong universalist value orientation (see section 2.1) makes societal benefits more salient. Furthermore, strongly felt moral obligations to protect the environment have been shown to reduce the importance of negative beliefs like the ones subsumed under “personal losses” in figure 1 (Klößner & Ohms, 2009).

Although attitudes have been repeatedly shown to be a relevant predictor of organic food purchase a significant gap between pro-organic attitudes and actual consumption of organic food remains. This attitude-behaviour gap that has been described in many behavioural domains has been attributed both to variables mediating between attitudes and behaviour and variables moderating this relation (Armitage & Christian, 2003). The first line of reasoning refers to that attitudes may not be a direct predictor of purchase behaviour but only have an indirect effect via other more proximal variables. The second line of reasoning refers to the assumption that other variables might impact the strength of the relation between attitudes and behaviour. Both aspects lead to more complex models that will be debated in section 5.

2.3 Concern

Finally, *concern* is a less clearly defined construct. In the medical and health context concern has been described as a worry expressed by a patient or a strong negative emotion (Schofield, Green, & Creed, 2008). With respect to other people concern has also been understood as expressing sympathy and compassion for less fortunate others (Fox, 2006), a concept that might also be generalized to non-human creatures or the environment in general. What characterizes concern is therefore an emotional reaction to anticipated negative effects either for oneself or for other people which potentially leads to tendencies to act against the negative impact.

Although concern for health, food safety, the environment, animal welfare or agricultural workers have been discussed in section 2.2 already and although there is a certain overlap it makes sense to look into concern for health and food safety as these two motivators of purchasing organic food might function differently from the others discussed before. Health concerns connected to conventional food are the most relevant motivator to buy organic food (Hughner et al., 2003). Magnusson et al. (2003) found that health concerns are more important than environmental concerns. Padel and Foster (2005) outline that this is especially the case for people with children. Specifically, the absence of chemicals like artificial fertilizers or pesticides, growth hormones or antibiotics etc. in organic agriculture and thereby avoiding possible negative health effects have been named as motivators (e.g., Schifferstein & Ophuis, 1998; Ott, 1990). Furthermore, that organic food is free from genetic modification is another motivator with a connection to health concern (Baker et al., 2004; Makatouni, 2002). However, Verdurme et al. (2002) were able to show that not all people who purchase organic food are opposing genetically modified food. Makatouni (2002) also found that fear of animal diseases or food scandals associated with the conventional food industry may have an impact. What makes separating health and food safety concerns, which is an emotional reaction to a perceived health threat, from the other beliefs about organic food attractive is that this opens for applying health psychological models to the purchase of organic food. This will be pursued further in section 6.

3. Situational impacts and their subjective representation: Availability, visibility, and price

It is not surprising that situational conditions like availability, visibility or the price of organic food relative to conventional alternatives has an impact on purchase decisions. In this section their impact will be analysed in more detail, with a special focus on their subjective representation, because objective accessibility or price differences are not

necessarily in accordance with subjective representations people have of them – and it are the latter that impact the decision.

3.1 Availability

In their overview paper Hughner et al. (2007) identified perceived lack of availability of organic food and inconvenience associated with the purchase process as one of the main barriers to organic food purchase. In a qualitative study with Italian customers by Zanolini and Naspetti (2002), people associated organic products as difficult to find. Padel and Foster (2005) found similar results in a UK sample and concluded that people reacted negatively to limited choice options (compared to conventional alternatives) and higher effort that needs to be put into buying organic food (e.g., additionally entering a health food store). In an unpublished interview pilot-study with Norwegian customers, limited accessibility of a full range of products in the organic food sector was named as the main barrier (Klößner, 2008). In an analysis conducted with Turkish customers, availability of organic products was a better predictor of purchase frequency than anticipated environmental benefits (Ergin & Özsacmaci, 2011). The most important predictor was trust (see section 4), followed by health considerations, availability and environmental benefits.

In a comparative review of organic food consumption in different European countries Thøgersen (2010) presents evidence for that the percentage of organic food consumption in a country is a function of influences from four different domains: political regulations (laws & subsidies), politically motivated market development (certification, labelling, information campaigns), the demand side in the market (values, environmental concern, food culture, income level, etc.) and the supply side in the market. This last factor clearly reflects that in order to sustain a functioning organic food market opportunities for the customer have to be created and convenient distribution channels have to be used to make organic products available at the point in time and space where the food purchase decision is made. Not coincidentally sales increased in many countries substantially after the big supermarket chains entered the organic food market (Aschemann et al., 2007), which is most likely the combined outcome of increased availability and marketing activities. Thøgersen (2010) argues that consumers' attitudes, values and norms and the like are only relevant for a purchase decision within a decisional space defined by the opportunities the supply side creates, which makes availability and easy access to one of the key features in increasing organic food consumption. Very few customers are willing to go the extra mile to buy an organic product.

3.2 Visibility and shelf-placement

The impact of visibility, placement on the shelf and shelf space of organic produce compared to their conventional alternatives may be regarded as a sub-phenomenon of the aforementioned availability discussion, but analysing their effects in more detail gives some additional insights. Hjelmar (2010) for example differentiated availability and visibility as two different factors and found that visibility was especially relevant for occasional buyers of organic food that did not plan to buy organic when entering the supermarket. For them being confronted with a presentation of organic produce that cannot be overlooked made the difference. Presentation at eye level, right next to the conventional alternative was what this segment of the customers reacted positively to.

Documented effects of shelf placement on product choice in a supermarket can also be used to increase sales of organic products. The more shelf space an item receives the more likely is it that it is selected (Desment & Renaudin, 1998; Dreze et al., 1994). In the supermarket the shelf space is usually distributed in strong disfavour of organically produced products. A position on eye or hand level also has a strong positive effect on sales numbers (Campo & Gijbrenchts, 2005). Items presented earlier on the shelf as well as near focal items (items highly preferred) also tend to have higher likelihoods of being sold (Simonson and Winer, 1992). Such effects are especially relevant, when the customers are under time pressure or are not motivated to engage in the shopping decision (e.g., after work shopping). Interestingly the effect of shelf-placement has been under-researched when it comes to organic food. One of the very few exceptions is a very comprehensive study by van Nierop et al. (2010). They found the best market share of organic products when they were presented in the middle of the shelf space and at eye level. They furthermore found that placing all organic food products in one corner of the supermarket does not increase sales but sorting the whole product category by brand (organic as well as conventional) does.

3.3 Price

Many studies found that higher prices for organic produce are the main barrier named by customers when asked why they do not buy organic (see Hughner et al, 2007, for a review). The relation is, however, more complex than it appears at first glance. When asked, if they are willing to pay a premium for organically grown food, consumers usually state that they are (Batte et al., 2007). Interestingly, the amount people state they are willing to pay as a premium is in many food categories lower than the actual premium (Millock et al., 2002) and this might not be a coincidence: Stating to be willing to pay a premium but at the same time naming an amount for the acceptable premium that lies below the actual premium is a very convenient way to both keep a clear conscience ("I am willing to financially support organic farming...") and continue not buying ("... but the actual premium is too high"). Soler et al. (2002) however present an alternative explanation: Based on results from their experimental study they assume that the decision to pay a premium is two-fold, first a decision is made, if a premium should be paid or not. About 70% of their participants were willing to pay a premium. This decision is more determined by attitudes towards environment and food safety. Then a second decision is made on the amount of the premium that is acceptable. This decision is more determined by socio-economic variables. Factors that have been shown to impact willingness to pay for organic products are a perceived added value with respect to food quality and security as well as trust in the producers and marketing chain (Krystallis & Chrysosoidis, 2005). Furthermore, willingness to pay increases with strong pro-environmental attitudes and young children in the household (Soler et al., 2002). They found that willingness to pay for an organic product is higher if a reference price for a conventional product is named and if information about the organic alternative is given orally (as opposed to written).

Interestingly, having to pay a premium on organic food is not only a barrier to purchase but also has a positive effect on the perception of the quality: Hill and Lynchehaun (2002) found that consumers used the price difference to infer that organic products both have better quality and taste. Also Cicia et al. (2002) demonstrated that customers used the price as a proxy to determine the quality of organic olive oil. Too low prices on organic olive oil were associated with it being of poor quality or not even truly organic.

The effect of the premium on organic food purchase is thus multi-dimensional. On the one hand it is a barrier that makes purchases less likely, on the other it is a proximal indicator associated with high quality food which might function as a motivator for a purchase – at least for some people. People willing to pay a price for higher quality food seem not to be scared off by the premium while people focussing on the budget are.

4. The importance of trust

Since the customers are not able to trace back their food through the whole production chain – at least not without considerable effort – trust in the farmers, producers and vendors becomes a key issue. This is especially the case for the organic food sector which is probably more than most other sectors depending on its costumers' trust. Brom (2000) analyses trust in the food sector and concludes that because of the de-coupling of food production and food consumption trust in food needs to be institutionalized. Trust, usually built in personal communication, needs to be established in another way. This means procedures of governmental (or other independent institutional) control in the food section need to be implemented to sustain consumer trust. Brom (2000) calls concerns about food safety (see section 2.3) an indicator of losing trust. He furthermore claims that trust is a moral relation, which means that there can only be trust in the food sector if the moral concerns of consumers are taken seriously.

There are literally hundreds of studies indicating that trust in producers and certifying institutions is one of the key determinants of organic food purchase (e.g., Krystallis & Chryssohoidis, 2005; Padel & Foster, 2005; Harper & Makatouni, 2002). Mistrusting that food marketed with organic food labels really is organic or that organic farming really makes a difference with respect to the food attributes important for a person (e.g., environmental friendliness, animal welfare, food safety, better taste, etc.; see section 2.2) is an almost certain death blow for any intention to buy organic food. Aarset et al. (2004) demonstrated that distrust in organic food certification is common in many countries and that this has a negative impact on attitudes towards organic food.

Following, a selection of factors will be described that have been shown to have a positive or negative impact on trust. Giannakas (2002) demonstrated in a mathematical model that keeping the amount of mislabelling conventional for organic produce low is vital for the organic food market. The organic food market will collapse if too many cases of mislabelling occur and customers' trust in organic labels is undermined. The importance of personal relations shows in a study by Sirieix and Schaer (2005). They found that French customers prefer to buy organic food on markets over supermarkets or health food stores because they experience a closer connection to their vendor, sometimes even communicating directly to the producer. Health food stores are trusted more than conventional supermarkets. In supermarkets trust is put in the food label, not the supermarket. Very similar results are presented by Essoussi and Zahaf (2009): They found in qualitative interviews that trust in organic food and food labels is the lower the longer the marketing chain is and the bigger the involved actors are. Direct marketing by local farmers receives the highest degree of trust, as consumers have direct access to information. Speciality stores receive a medium level of trust, because customer relations are perceived as being still rather close. Supermarkets receive the lowest trust rating and trust is transferred to the food label instead. Pivato et al. (2008) on the other hand found a relation between the perceived corporate social responsibilities of a supermarket chain impact the amount of trust

customers have in their private label organic product series which eventually impacts also brand loyalty. Essoussi and Zahaf (2009) also found that organic food produced within your own country is trusted more than imported organic food. Truninger (2006) used in depth interviews to identify small size of the shop, personal bonding with the owner or personnel, feeling of belonging to one community with shared values and interests with the producer or vendor as determinants of trust. Furthermore, authenticity of organic food is validated by the appearance of the product: Fruits and vegetables should for example not be too big, too shiny, have small holes or bugs to be perceived as authentically organic. These findings put an interesting ambiguity on the appearance factor of organic food: on the one hand customers name sensory defects as barrier towards purchase of organic food (Hugher et al., 2007), on the other hand are exactly these sensory defects used as indicators of authenticity by other people. Maybe, the difference lies in the market segment: occasional buyers of organic fruits and vegetables in supermarkets expect the same visual appearance from organic than from conventional products, whereas more frequent buyers of organic food get suspicious when presentation is too perfect and shiny.

5. Models of environmental behaviour applied to organic food purchase

Social psychological behaviour models have contributed significantly to understanding environmentally relevant behaviour, its determinants and entry points for interventions to change behaviour. The two models most prominently used in environmental psychology today are the theory of planned behaviour (Ajzen, 1991) and the norm-activation theory (Schwartz & Howard, 1981). The two following sections outline their main assumptions and how the models have been used with respect to organic food purchase.

5.1 The theory of planned behaviour

The theory of planned behaviour (Ajzen, 1991) was not specifically developed to explain organic food choice but all types of planned behaviour. Its main assumption is that behaviour usually is under volitional control and is in such a case guided mainly by the intention to perform it: an actor develops a will to perform a certain behaviour (e.g., buying organic milk) and perceives it likely that this will happen. This intention is itself determined by three different factors (see figure 2): (a) the attitude towards the behaviour, (b) social norms, and (c) perceived behavioural control. The attitude is the sum of all beliefs about the behaviour (see section 2.2). Beliefs are expected outcomes times evaluation of the outcomes which makes the attitude a measure of favourability of a behavioural option. Social norms – they were called subjective norms by Ajzen (1991) – are the perceived expectations of other people: What do I think other people expect me to do in this situation? Is buying organic milk socially acceptable? Would people that are important to me support me in doing that? Would they expect it and probably sanction me for not doing it? Are other people's expectations important to me for this particular behaviour? Social norms have been further separated into injunctive and descriptive norms (Thøgersen, 2006). Injunctive norms are the anticipated expectations of other people about what is right and what is wrong, what is appropriate and what is not. Descriptive norms on the other hand are simply a representation of what other people do. Perceived behavioural control, finally, is the degree of control a person experiences over his or her behaviour. Is it easy for me to buy organic milk? Are there external factors that prevent me from doing it (e.g., availability, restricted

budget)? Under certain conditions perceived behavioural control can affect behaviour directly and shortcut the mediation by intentions (see figure 2).

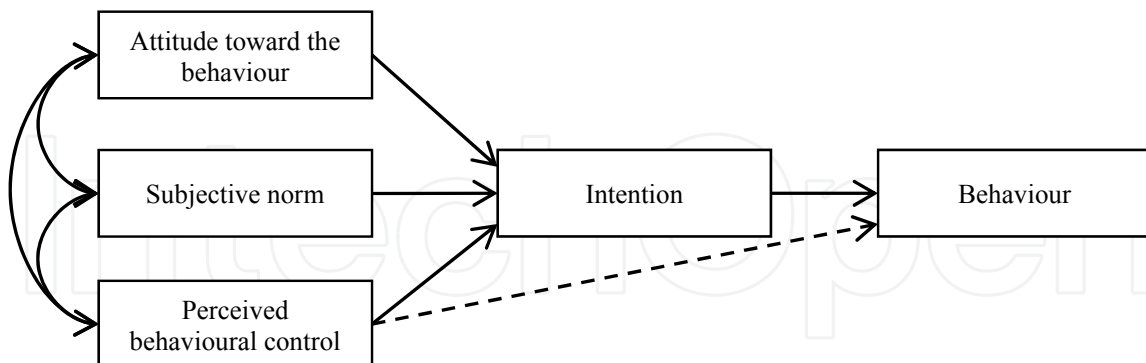


Fig. 2. The theory of planned behaviour (Ajzen, 1991, p. 182)

In the domain of organic food purchase the theory of planned behaviour has been applied successfully by several authors. Selected examples are presented in the remainder of this section, all extending the theory of planned behaviour by additional aspects. Arvola et al. (2008) used the theory as a framework to test factors that influence intentions to buy organic food (apples and pizza) in three European countries (Italy, Finland, and UK). They extended the model by “moral attitudes”, which they define as “*the self-rewarding feeling of doing the right thing*” (page 443). For the intention to buy organic apples, social norms and attitudes were the only predictors, whereas moral attitudes became a third predictor of intentions for organic pizza. Interestingly, perceived behavioural control came out as not related to intentions in their study and was consequently omitted from the model. The strongest between countries differences were that the moral attitude was a stronger predictor than social norms in Italy and the UK, whereas in Finland it was the other way round. This indicates that the impact the factors in the theory of planned behaviour have on intention is depending on culture. Tarkiainen and Sundqvist (2005) on the other hand found evidence in a different Finnish sample that the impact of social norms is only indirect and mediated by attitudes. Additional factors like health consciousness, importance of price and perception of availability did not impact the self-reported purchase frequency significantly.

Vermeir and Verbeke (2008) tested a model where they assumed that attitudes and social norms impact intentions to buy a hypothetical organic dairy product. They divided perceived behavioural control into two sub-dimensions, one being perceived availability and one perceived consumer effectiveness. The latter captures if people feel they – as consumers – can make a noticeable difference. Furthermore, they tested if value orientations (see section 2.1) and confidence that the product does what it promises, which could be interpreted as a measure of trust, moderate the relations between the four predictors and intentions. They found that attitudes had the by far strongest influence on intentions, followed by the two sub-dimensions of perceived behavioural control. Social norms only had a weak influence. Value orientations did moderate the relations between social norms and intentions as well as between perceived consumer effectiveness and intentions. Social norms have a stronger influence for people with low scores on the universalism and stimulation value and high scores on tradition and self-direction. Perceived consumer effectiveness is less important for people with high traditional values and low stimulation

values. Social norms were not a significant predictor of intentions for people with low confidence that the product does what it promises.

5.2 The norm-activation theory

The norm-activation theory (Schwartz & Howard, 1981) in contrast to the theory of planned behaviour focuses on personal norms as the main driver of behaviour. It was developed to explain pro-social behaviour but has been adapted to environmentally relevant behaviour (e.g., Hunecke et al., 2001). The theory assumes that personal norms, which are a feeling of moral obligation to act in a certain way, predict behaviour directly. Obviously, this effect only applies to motivations that have a moral undertone (see section 2). People that buy organic food for hedonistic or health reasons would not be affected by moral obligations. To become relevant, personal norms have to be triggered in a situation when a decision is made. Activating factors in the model are the perception of ecological problems, awareness of consequences, subjective norms and perceived behavioural control (see figure 3). Subjective norms and perceived behavioural control are identical to the theory of planned behaviour. Perception of problems captures that personal norms are only activated when a person perceives a problem to be relevant in a given situation. Awareness of consequences reflects the extent to which a person perceives his or her actions to contribute significantly to the problem. In their adaptation of the norm-activation theory to environmental behaviour, Hunecke et al. (2001) expected that the relation between personal norms and behaviour is moderated by external costs. Klöckner and Ohms (2009) applied the model to the purchase of organic milk and found support for the relations suggested in the model. Thøgersen and Ölander (2006) found in a panel study that strong personal norms are a good predictor of changes in consumption patterns towards organic products. The impact of perceived consumer effectiveness (see section 5.1) on behaviour is mediated by personal norms.

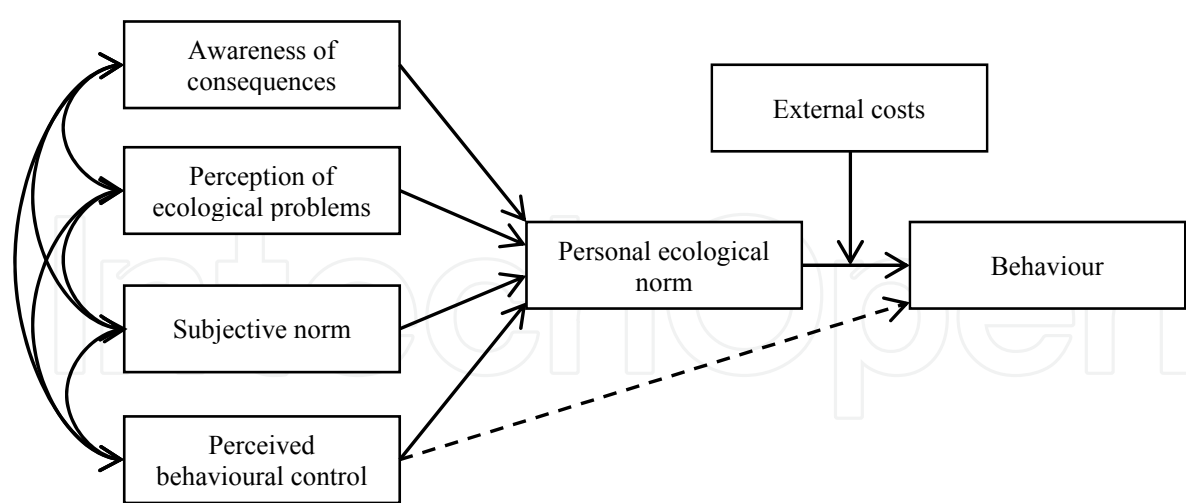


Fig. 3. The norm-activation theory (as adapted by Hunecke et al., 2001, p. 832)

6. Models of health behaviour applied to organic food purchase

As some consumers buy organic food out of health concern or concern for food safety, it makes sense to analyse briefly how health psychological models might contribute to understanding organic food choice. The health-belief model (e.g., Rosenstock, 2000) and the

related protection-motivation theory (R. W. Rogers, 1975) have been applied to organic food purchase. The protection-motivation theory assumes that a motivation to protect oneself against health or other threats results from the evaluation of two factors: (a) how big is the threat for me personally and (b) how effective are coping measures I can take. The threat appraisal depends on the perceived severity of the threat and the perceived vulnerability. Highest threat appraisals occur therefore when a threat is connected to severe consequences and a person considers him/herself to be vulnerable. The threat appraisal can be reduced if the threat is connected to some kind of behaviour which is intrinsically or extrinsically rewarded (e.g., eating sweets). A high threat appraisal alone is however not enough to motivate protection measures. In addition a person has to come to the conclusion that coping strategies are effective in reducing the threat (response efficacy), feasible (self-efficacy) and not too costly. Taking organic meat consumption as an example, a motivation to buy organic meat would develop if a person perceives a relevant threat with severe consequences (e.g., being infected with Creutzfeld-Jakob disease when eating BSE infected meat), perceives herself as being vulnerable (e.g., being a frequent meat eater), perceiving the option to buy organic meat as effective (e.g., no infection with BSE in organic meat), feasible (e.g., there is organic meat sold in the local supermarket) and not too costly (e.g., premium for organic meat is affordable).

Verhoef (2005) used variables of the protection motivation theory to explain preference for organic meat and found that fear of health related consequences of consumption of conventional meat is a relevant predictor. Scarpa & Thiene (2011) used the protection motivation theory constructs to identify sub-groups of Italian people buying organic carrots. Based on protection motivation theory they identified three classes of people: (a) the first and with 60% largest class consisted of people that had both a high threat appraisal (threat of pesticide residues in conventional carrots) and a high coping appraisal (buying organic carrots helps and is feasible), (b) a second class of 25% with high coping appraisal but low threat appraisal (which should show some action, “just to be sure”), and (c) a small class of 15% with low threat and coping appraisal. A class with high threat appraisal and low coping appraisal was not found.

7. Perception and use of organic food labels

Food labels on organic food have been discussed in section 4 already as a trust-building aspect in the purchase of organic produce, especially if the purchase is made in an environment that is not trusted per se (e.g., a supermarket). All over the world, hundreds if not thousands of organic food labels exist, varying a lot in what they certificate and who the administering authority is. You can find labels only valid for certain lines of products (e.g., specific organic wine labels), labels that are used across the whole range of food products, labels that are assigned only in one country or region, labels that are used across country borders, labels that are assigned by independent organizations or governmental organizations, labels that are assigned by the food industry itself or interest organizations, additional organic food labels that are supermarket chain specific and so on. The standards for each label are different so that organic products often carry a selection of several labels (e.g., the general European Union organic food label in addition to the local label with stricter standards). This large variation leads to potential confusion of customers about standard behind eco-labels and mistrust might be a result. In a review article Pedersen & Neergard (2006) show that a large majority of consumers indicate that there were too many

labelling schemes. Furthermore, most people indicated very limited knowledge about what the labels actually stand for and even about some of the basic concepts involved.

Teisl and Roe (2005) summarize the factors that contribute to effective eco-labelling programmes. First of all, customers have to notice, understand and believe the information communicated by the label. Since customers do not have the means to verify that a certain product actually fulfils the standards that the eco-label promises, the “belief” is a matter of trust and credibility of the certifying institution, which has been discussed in section 4. “Notice” addresses the problem that the eco-label is competing for customers’ attention with many other labels, logos and visual influences in the supermarket.¹ To become relevant in a decision it has to be – at least subconsciously – noticed. Furthermore, the customer needs to be able to connect the label with a message relevant for him or her (e.g., this produce is from organic farming). Teisl and Roe (2005) found in a series of experiments with differently designed eco-labels that their perceived credibility was higher if contact information was added, if more detailed numbers instead of summary scores were presented, if the certifying organization was familiar to the customer, independent from the producer, and visible with a logo close to the label or in the label. Biel and Grankvist (2010) also found in a study with professional food purchasers that more detailed information positively impacted the choice of the more environmentally friendly product. Teisl and Roe (2005) were also able to show that credible labels had an effect on product choice. Tang et al. (2004) analysed the impact of visual and verbal communication on eco-labels and found that both had an independent and additive effect, meaning that combining visual and verbal communication had the largest effect. Sønderskov and Daugbjerg (2011) were able to show that trust in eco-labels is higher in countries with where the state is more involved in assigning eco-labels.

Leire and Thidell (2005) outline in a review paper that Nordic customers are to a large extent very aware of eco-labels: they recognize them, know about their background and trust the certifying authorities sufficiently. However, a much smaller proportion of the Nordic population actually buys products with these labels. Leire and Thidell (2005) conclude that the use of eco-labels in the dynamics of and in interaction with the choice situation in the supermarket is under-researched.

Grankvist et al. (2004) experimentally compared the effect of positive labels and negative labels. Positive labels indicate the benefit the use of a product has for the environment compared to an average product; negative labels indicate the increased negative outcomes the use of a product would have compared to an average product from that category. They found an interesting interaction between the effect of positive and negative labels and the consumers’ environmental interest: people with low environmental interest were not affected by any type of label, people with high environmental interest reacted to both types, but individuals with an intermediate interest reacted more strongly to the negative label. The effect that negative information had stronger effects than positive was also replicated by Biel and Grankvist (2010). Given that almost all food labels are positive labels this finding indicates that negative labels on especially environmentally damaging products could reach a higher proportion of the population – not taking the feasibility of that approach in current market conditions into account.

¹ When the consumer decides to shop in an organic food speciality store organic food labels only have a reduced importance: to select between different organic food standards.

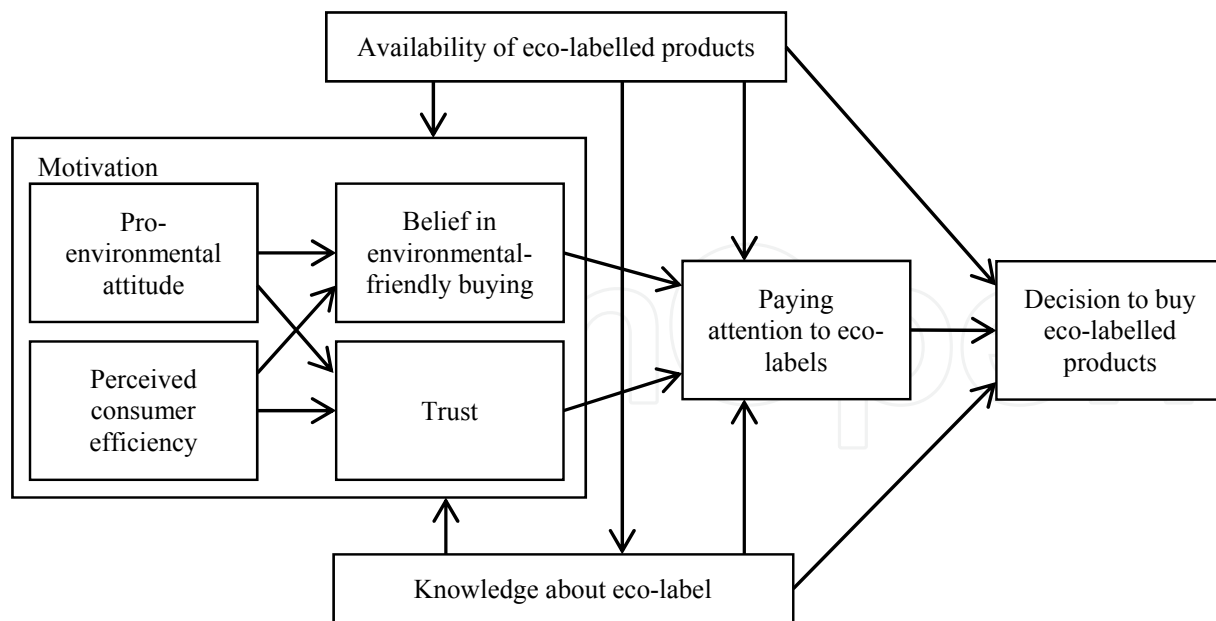


Fig. 4. A model of predicting paying attention to eco-labels and the purchase of labelled products (Thøgersen, 2000, p. 293)

Thøgersen (2000) developed a framework model that describes under which conditions consumers pay attention to eco-labels (see figure 4). He assumes that a decision to buy an eco-labelled product in the supermarket is depending on availability of labelled products in the store and knowledge about the label but also on paying attention to the labels.

Following the model paying attention is influenced by availability, knowledge, a fundamental belief in benefits of environment-friendly buying and trust. The latter two are impacted by a general pro-environmental attitude and perceived consumer effectiveness (see section 5.1). Thøgersen (2000) tested parts of the proposed models on a sample of customers from five European countries and found general support for the model.

In a recent paper Thøgersen et al. (2010) applied E. M. Rogers (1995) diffusion of innovation theory to the adoption of eco-labels. Based on the theory they developed a framework model of the adoption process of an eco-label and how it diffuses through a population (see figure 5). They assume that the individual process of adoption goes through six stages: (a) the individual needs to be exposed to the new label, (b) the individual needs to perceive it at least subconsciously, (c) the individual needs to understand the label and its message and needs to make inferences about what it means related to goals that are important for the individual, (d) the individual evaluates the message and potentially likes it, (e) the product is tried once, and if that resulted in satisfaction (f) adoption becomes more permanent.

The speed of this process depends on factors within the environment (e.g., how much effort is put into campaigning or how many other people already adopted the label), the adopting person, and the label itself. Using a food label for sustainable fish as an example they identified factors that contributed to start the adoption process (perceiving the label and aiming to understand it) and factors that contribute to complete the process (trying and continuing to use the label for purchase decisions). General knowledge about eco-labels, subjective knowledge about sustainable fishery, having the intention to buy sustainable fish, the degree of innovativeness with respect to eco-labels, and being female contributed

positively to the probability of starting the adoption process. Innovativeness captures if a person perceives him/herself to be an early adopter of organic food related innovations. Successfully coming through the first stages of perceiving, understanding and liking the label are good predictors of final adoption. The buying intention still has a direct effect, but the interaction with having passed the first stages is also significant, showing that participants that both intent to buy sustainable fish and recognized and understood the label are more likely to buy the labelled fish than people that only have the intention.

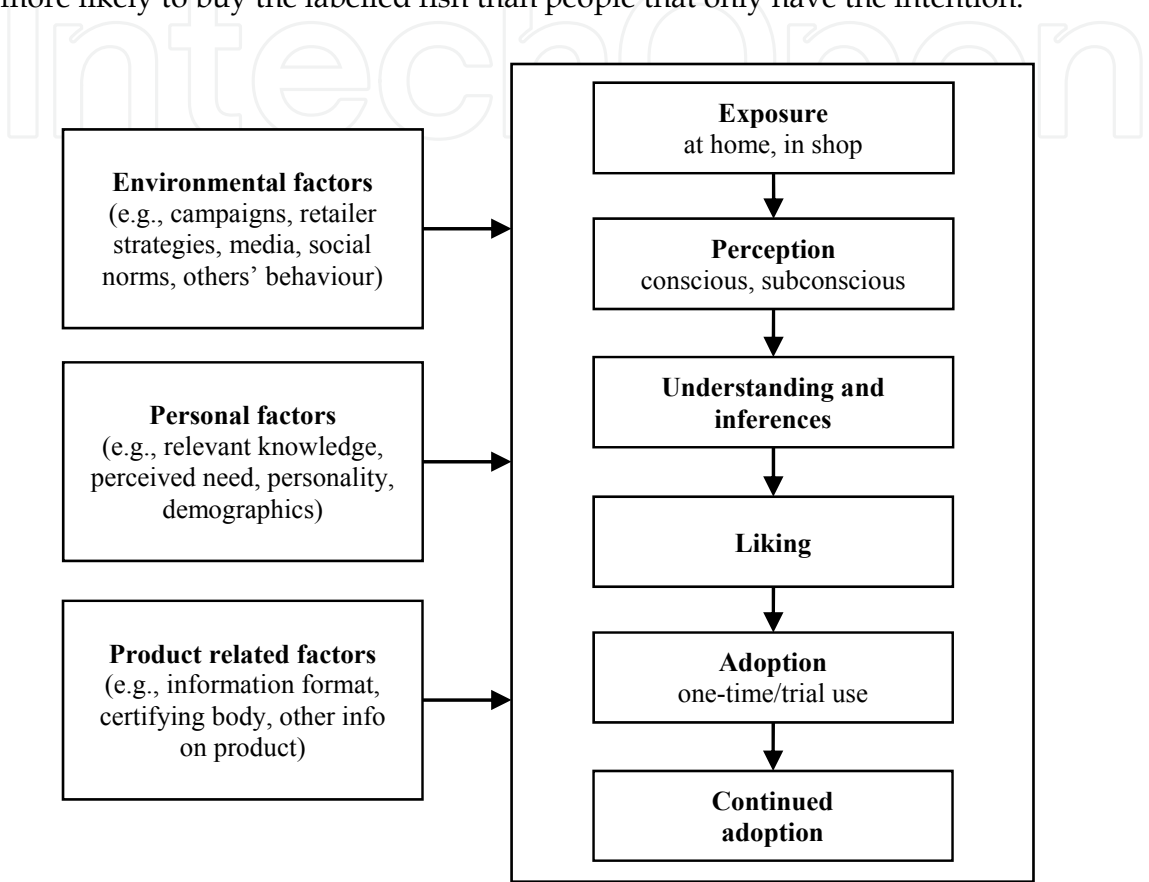


Fig. 5. A framework model of eco-label adoption (Thøgersen et al., 2010, p. 1790)

8. An integrated framework: In the supermarket and beyond

Building on the finding presented in the previous sections and a comprehensive model of environmental behaviour proposed by Klöckner (2010) an integrated modelling framework is suggested. Despite its complexity it is not meant to be a complete model of consumer behaviour but a framework to analyse the subtleties and interplay of the variables that have been introduced before. The first assumption of the model is that consumer behaviour with respect to organic food is not the result of one decision but a series of decisions nested in each other. As an example two of those decisions and possible determinants are depicted in figure 6: (a) the decision where to go for food shopping (for reasons of keeping the model reasonably simple only with the alternatives speciality organic food store and supermarket) is displayed in the upper half, (b) if the first decision is for the supermarket, more decisions have to be made between conventional and organic products within the supermarket. If a decision is made for a speciality store, the following in-store decisions do not affect the

outcome with respect to the broad categories organic vs. conventional food. Of course decisions are made also in speciality stores and of course also within the category of organic food these decisions shape the environmental impact, but this is deliberately left out of further analysis.

Let us take a closer look at the shopping location decision and its determinants first. According to the action models presented in section 5 and the arguments presented by Klöckner (2010) this decision should be impacted by three different variables: Intentions to buy in a speciality store, perceived control over this behaviour and shopping habits or store loyalties. Shopping habits refers to if people repeatedly did their shopping in a particular store so that the decision where to go for a shopping trip might be shortcut and people go just where they usually go. This effect might be in favour or disfavour of the organic food store. Habits should reduce the impact of intentions on the choice, especially if people decide under time pressure or with low emotional involvement. Perceived behavioural control is divided into three sub-dimensions: (a) perceived consumer effectiveness, (b) perceived availability of a speciality store, and (c) perceived convenience of shopping there (e.g., how do I get there, do they offer everything I need, is it on my way to other activities, etc.). Also perceived behavioural control should not only impact the decision but also the strength of the impact of intentions: If perceived behavioural control is low, the impact of intentions on behaviour should be reduced. Finally, mistrust in the credibility of the food store might interfere with the intention to buy there.

Intentions to buy in a speciality store should be affected by the attitudes towards organic food and speciality stores, personal norms (which also might be called moral attitudes), social norms, and for some people also protection motivations out of health concern. Attitudes are built on beliefs, personal norms are a reference to value orientations, and social norms can be divided into injunctive norms (what people say to other people what they should do) and descriptive norms (what other people do). Finally, protection motivation is determined by the appraisal of a possible threat connected to shopping in a conventional supermarket and the coping appraisal.

Many variables and relations in the lower part (the in-store decisions) are similar to the variables in the upper half, but it is important to keep in mind, that they refer now to a different decision: Intentions are now intentions to buy the organic version of one specific product, the attitudes are attitudes about this specific product, habits are now routines in the shop (for example which way to go through the aisles, in which and where on the shelf to look for products, which products to prefer automatically) and brand loyalties. Perceived control is also specific for this decision and incorporates specific versions of perceived consumer efficiency, the availability and visibility of a product and the premium that has to be paid. Social norms and a potential protection motivation are also connected specifically to products or product classes. All of these variables will differ from the more general ones described before and also between product categories and products.

Another important difference between the in-store decision and the between stores decision is that eco-labels become a central position in enabling people to act according to their intention to buy organic food. Organic food has to be identified and usually food labels make that possible. As has been described before, people pay attention to food labels if they intent to buy organic, but also only if labelled products are available and visible in the shop, if the label is trusted and familiar. Visibility is affected by marketing within and outside the store but also where and how a product is presented on the shelves. Visibility affects familiarity, which in turn also affects trust (the more familiar the more trusted).

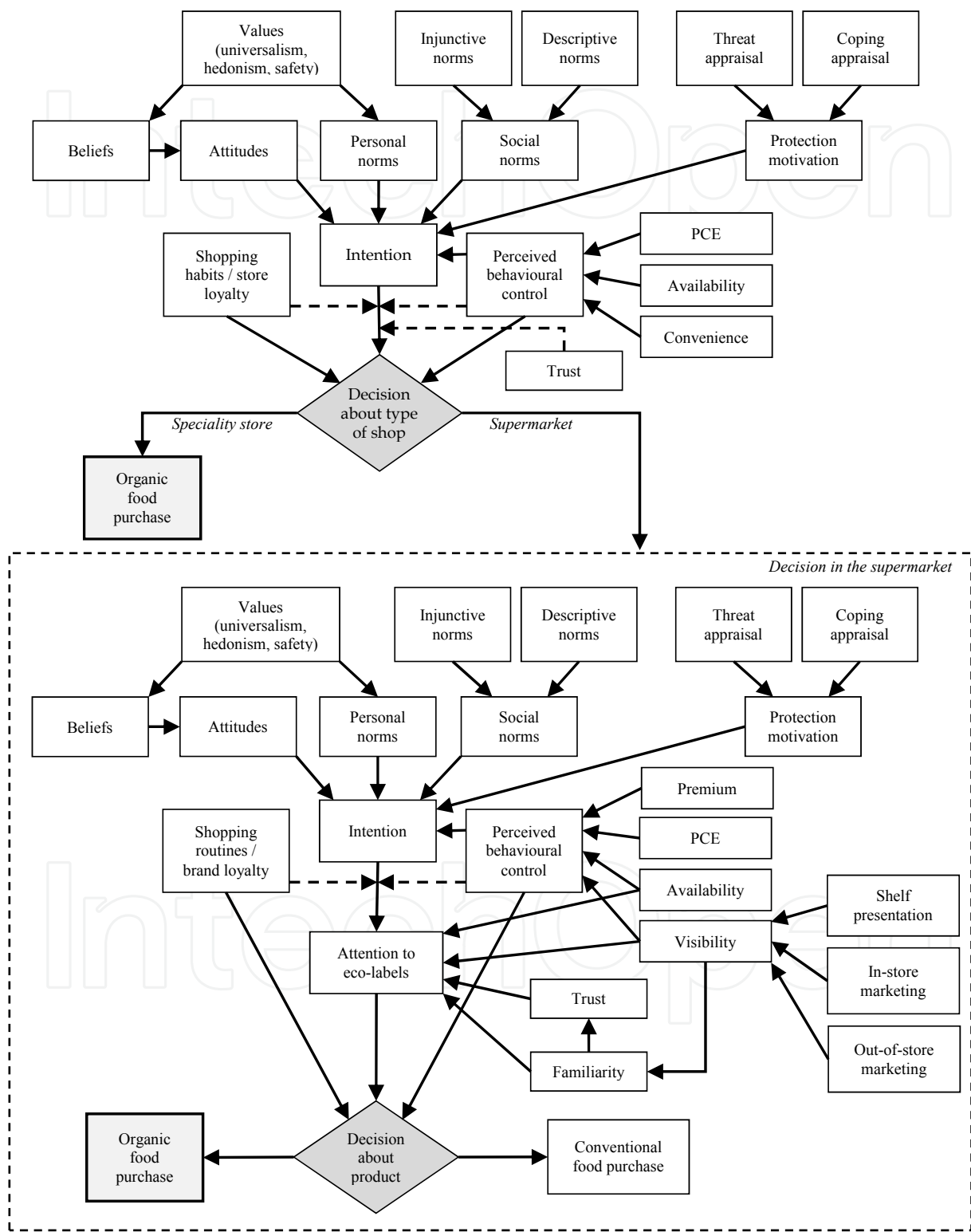


Fig. 6. An integrated model framework

9. Conclusion

In this chapter the complexity of human decision-making with respect to purchasing organic food has been outlined. It has been demonstrated that enhancing the diffusion of organic food in the market is more complex than just lowering the absolute price for organic food. Even if high prices for organically produced food have been repeatedly identified as a major barrier in the purchase process (e.g., Chinnici et al., 2002), the price of a product is only one determinant of a purchase decision. To understand the role the price can or cannot play in the decision it has to be differentiated between the absolute and the relative price. If only the absolute price is evaluated it is difficult for a consumer to decide, if a product is too expensive to be purchased or not. The absolute price can only be evaluated against the available budget which poses an upper limit to the expenses that can be made or a very abstract scale of what appears to be a high price within the category of food. Therefore, customers usually determine more accurately if a product is expensive or not based on relating its price to a reference price, in case of organic food to a similar conventionally produced product (Soler et al., 2002). This relative price should then have much more relevance for purchase decisions than absolute prices as long as the absolute price does not overstretch the budget and the product is outside the range of the affordable. This argument can be underlined by looking at studies analysing the impact of increases or decreases of the absolute price level of a product category compared to changes in the relative pricing structure within a category. Whereas for many products at least moderate increases of the absolute price level often have no effect on the quantity of product purchases – an effect referred to as price inelasticity – changes of the relative price structure does, for example during promotional campaigns (Bolton, 1989). However, even if we accept that within the boundaries of the available budget the relative price may be more important than the absolute the presented framework model suggests that the price is only one of many determinants of purchasing organic food or not. Availability and visibility are often at least as important, especially in societies with a high average income level that spend a rather low proportion on food purchases and especially for non-committed buyers. Moral or health protective motivations are relevant, though not directly impacting purchase behaviour. A motivation to buy organic is fragile and can easily be forgotten or deactivated by other motivations on the way into the supermarket.

The framework model presented in the previous section offers various potential levers to impact the market share of organic products. The various motivations to consider organic food have been presented, possible barriers have been identified and the aspect of communicating with the customer via labels has been analysed. Given that the most potential growth sections for organic food lie in the supermarket and not the speciality store (Sahota, 2007), some recommendations based on the model will be presented in this section: to be purchased by a customer in a supermarket organic food has to be available and visible when the decision is made. Shelf placement of and space occupied by organic food plays a crucial role. As long as the price premium is not too extensive the premium is no insurmountable barrier. On the contrary, it also carries the message of high quality food. With respect to food labels visibility, tangibility and trust to the administering authority are the important aspects. Only if all of these things are in place in the supermarket motivations to protect nature, animals, one's health or producers have the chance to become translated into behaviour. An important additional condition is, that the consumer perceives the contribution made by this particular purchase relevant for solving the moral or health

related dilemma. Thus, communicating the positive impact a purchase can have (either individually or aggregated to a meaningful number) is a promising strategy. Finally, change in purchasing habits is a difficult process often interfered by brand loyalties or automaticities in the supermarket. Breaking such habits often affords structural changes like rearranging the supermarket layout, a technique often applied by supermarket chains to prevent customers from developing too powerful shopping routines that would reduce their perceptiveness for new products.

Although the framework model is probably too complex for a model test, it makes interesting predictions that can be tested. Especially the nested structure of decision and the impact earlier decisions have on the decisional space of later decisions is very much under-researched and should get more attention. Also the social context of food purchases which means the direct or indirect information customers detect and process about what other people buy and what is normal and accepted should get more attention. Finally, the application of conventional marketing strategies on organic food and studies about if and how they apply to this special food sector is still pending. Very little is known about if traditional rules for shelf placement or shelf space occupied function in the same way for organic food than they do for conventional.

10. References

- Aarset, B., Beckmann, S., Bigne, E., Beveridge, M., Bjorndal, T., Bunting, J., McDonagh, P., Mariojous, C., Muir, J., Prothero, A., Reisch, L., Smith, A., Tveteras, R., & Young, J. (2004). The European consumers' understanding and perception of the "organic" food regime – the case of aquaculture. *British Food Journal*, 106, 2, ISSN 0007-070X, 93-105
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 2, ISSN 0749-5978, 179-211
- Armitage, C. J., & Christian, J. (2003). From attitudes to behaviour: Basic and applied research on the theory of planned behaviour. *Current Psychology*, 22, 3, ISSN 1046-1310, 187-195
- Arvola, A., Vassallo, M., Dean, M., Lampila, P., Saba, A., Lähteenmäki, L., & Shepherd, R. (2007). Predicting intentions to purchase organic food: The role of affective and moral attitudes in the Theory of Planned Behaviour. *Appetite*, 50, 2-3, ISSN 0195-6663, 443-454
- Aschemann, J., Hamm, U., Naspetti, S., & Zanolli, R. (2007). The organic market, In: *Organic Farming : an International History*, W. Lockeretz, 123-151, CABI, ISBN 978-0-85199-833-6, Wallingford, England
- Batte, M. T., Hooker, N. H., Haab, T. C., & Beaverson, J. (2007). Putting your money where their mouths are: Consumer willingness to pay for multi-ingredient, processed organic food products. *Food Policy*, 32, 2, ISSN 0306-9192, 145-159
- Baker, S., Thompson, K. E., Engelken, J., & Huntley, K. (2004). Mapping the values driving organic food choice: Germany vs. The UK. *European Journal of Marketing*, 38, 8, ISSN 0309-0566, 995-1012
- Biel, A., & Grankvist, G. (2010). The effect of environmental information on professional purchasers' preference for food products. *British Food Journal*, 112, 3, ISSN 0007-070X, 251-260

- Bolton, R. N. (1989). The relationship between market characteristics and promotional price elasticities. *Marketing Science*, 8, 2, ISSN 1526-548X, 153-169
- Brom, F. W. A. (2000). Food, consumer concerns, and trust: food ethics for a globalizing market. *Journal of Agricultural and Environmental Ethics*, 12, 2, ISSN 1573-322X, 127-139
- Campo, K., & Gijsbrechts, E. (2005). Retail assortment, shelf and stockout management: Issues, interplay and future challenges. *Applied Stochastic Models in Business and Industry*, 21, 3, ISSN 1526-4025, 383-392
- Chinnici, G., D'Amico, M., Pecorino, B. (2002). A multivariate statistical analysis on the consumers of organic products. *British Food Journal*, 104, 3-5, ISSN 0007-070X, 187-199
- Cicia, G., del Giudice, T., & Scarpa, R. (2002). Consumers' perception of quality in organic food – a random utility model under preference heterogeneity and choice correlation from rank-orderings. *British Food Journal*, 104, 3-5, ISSN 0007-070X, 200-213
- De Magistris, T., & Gracia, A. (2008). The decision to buy organic food products in Southern Italy. *British Food Journal*, 110, 9, ISSN 0007-070X, 929-947
- Desmet, P., & Renaudin, V. (1998). Estimation of product category sales responsiveness to allocated space. *International Journal of Research in Marketing*, 15, 5, ISSN 0167-8116, 443-457
- Dreezens, E., Martijn, C., Tenbült, P., Kok, G., & de Vries, N. K. (2005). Food and values : an examination of values underlying attitudes toward genetically modified- and organically grown food products. *Appetite*, 44, 1, ISSN 0195-6663, 115-122
- Dreze, X., Hoch, S. J., & Purk, M. E. (1994). Shelf-management and space elasticity. *Journal of Retailing*, 70, 4, ISSN 0022-4359, 301-326
- Eagly, A. H., & Chaiken, S. (1993). *The Psychology of Attitudes*, Harcourt, Brace, Jovanovich, ISBN 0155000977, Fort Worth, Texas, USA
- Ergin, E. A., & Ozsacmaci, B. (2011). Turkish consumers' perceptions and consumption of organic foods. *African Journal of Business Management*, 5, 3, ISSN 1990-3839, 910-914
- Essoussi, L. H., & Zahaf, M. (2009). Exploring the decision-making process of Canadian organic food consumers – motivations and trust issues. *Qualitative Market Research : An International Journal*, 12, 4, ISSN 1352-2752, 443-459
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Addison-Wesley, ISBN 0201020890, Reading, Massachusetts, USA
- Fox, J. (2006). Notice how you feel: An alternative to detached concern among hospice volunteers. *Qualitative Health Research*, 16, 7, ISSN 1552-7557, 944-961
- Giannakas, K. (2002). Information asymmetries and consumption decisions in organic food product markets. *Canadian Journal of Agriculture Economics*, 50, 1, ISSN 1744-7976, 35-50
- Grankvist, G., Dahlstrand, U., & Biel, A. (2004). The impact of environmental labelling on consumer preference: Negative vs. positive labels. *Journal of Consumer Policy*, 27, 2, ISSN 0168-7034, 213-230
- Grunert, S. C., & Juhl, H. J. (1995). Values, environmental attitudes, and buying of organic food. *Journal of Economic Psychology*, 16, 1, ISSN 0167-4870, 39-62

- Harper, G. C., & Makatouni, A. (2002). Consumer perception of organic food production and farm animal welfare. *British Food Journal*, 104, 3-5, ISSN 0007-070X, 287-299
- Hill, H., & Lynchehaun, F. (2002). Organic milk: Attitudes and consumption patterns. *British Food Journal*, 104, 7, ISSN 0007-070X, 526-542
- Hjelmar, U. (2010). Consumers' purchase of organic food products. A matter of convenience and reflexive practices. *Appetite*, 56, ISSN 0195-6663, 336-344
- Honkanen, P., Verplanken, B., & Olsen, S. O. (2006). Ethical values and motives driving organic food choice. *Journal of Consumer Behaviour*, 5, 5, ISSN 1479-1838, 420-430
- Hunecke, M., Blöbaum, A., Matthies, E., & Höger, R. (2001). Responsibility and environment – ecological norm orientation and external factors in the domain of travel mode choice. *Environment and Behavior*, 33, 6, ISSN 0013-9165, 830-852
- Klöckner, C. A. (2010). Understanding the purchase of organic food – a theoretical framework from a psychological perspective. *FoodInfo Online Features*, 23 August 2010: www.foodsciencecentral.com/fsc/ixid15967
- Klöckner, C. A. (2008). *Subjektive barrierer som forhindrer at nordmenn handler økologisk mat*. Unpublished pilot study report, NTNU, Trondheim, Norway.
- Klöckner, C. A., & Ohms, S. (2009). The importance of personal norms for purchasing organic milk. *British Food Journal*, 111, 11, ISSN 0007-070X, 1173-1187
- Krystallis, A., & Chrysosoidis, G. (2005). Consumers willingness to pay for organic food – factors that affect it and variation per organic product type. *British Food Journal*, 107, 5, ISSN 0007-070X, 320-343
- Lea, E., & Worsley, T. (2005). Australians' organic food beliefs, demographics and values. *British Food Journal*, 107, 10-11, ISSN 0007-070X, 855-869
- Leire, C., & Thidell, Å. (2005). Product-related environmental information to guide consumer purchases – a review and analysis of research on perceptions, understanding and use among Nordic consumers. *Journal of Cleaner Production*, 13, 10-11, ISSN 0959-6526, 1061-1070
- Magnusson, M. K., Arvola, A., Hursti, U., Åberg, L., & Sjöden, P. (2003). Choice of organic food is related to perceived consequences for human health and to environmentally friendly behaviour. *Appetite*, 40, 2, ISSN 0195-6663, 109-117
- Makatouni, A. (2002). What motivates consumers to buy organic food in the UK? Results from a qualitative study. *British Food Journal*, 104, 3-4-5, ISSN 0007-070X, 345-352
- Michaelidou, N., & Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity in attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32, 2, ISSN 1470-6431, 163-170
- Millock, K., Gårn Hansen, L., Wier, M., & Mørch Andersen, L. (2002). *Willingness to pay for organic foods: A comparison between survey data and panel data from Denmark*. Research report retrieved online: <http://orgprints.org/1754/>
- Nierop, E. van, Herpen, E. van, & Sloot, L. (2010). *The relationship between in-store marketing and observed sales of sustainable products: A shopper marketing view*. Research report, University of Groningen, Netherlands
- Nygård, B., & Storstad, O. (1998). De-globalization of food markets ? Consumer perceptions of safe food: the case of Norway. *Sociologia Ruralis*, 38, 1, ISSN 0038-0199, 35-53

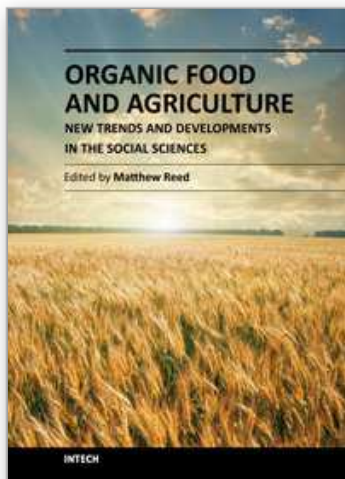
- Onyang, B., Hallman, W. K., & Bellows, A. C. (2007). Purchasing organic food in US food systems : A study of attitudes and practice. *British Food Journal*, 109, 5, ISSN 0007-070X, 399-411
- Ott, S. L. (1990). Supermarket shoppers' pesticide concerns and willingness to purchase certified pesticide residue-free fresh produce. *Agribusiness*, 6, 6, ISSN 1520-6297, 593-602
- Özcelik, A. Ö., & Ucar, A. (2008). Turkish academic staff's perception of organic foods. *British Food Journal*, 110, 9, ISSN 0007-070X, 948-960
- Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behaviour – understanding why consumers buy or do not buy organic food. *British Food Journal*, 107, 8, ISSN 0007-070X, 606-625
- Pedersen, E. R., & Neergaard, P. (2006). Caveat emptor – let the buyer beware! Environmental labelling and the limitations of 'green' consumerism. *Business Strategy and the Environment*, 15, 1, ISSN 0964-4733, 15-29
- Pivato, S., Misani, N., & Tencatti, A. (2008). The impact of corporate social responsibility on consumer trust: the case of organic food. *Business Ethics: A European Review*, 17, 1, ISSN 0962-8770, 3-12
- Rogers, E. M. (1995). *Diffusion of Innovations* (5th edition), Free Press, ISBN 978-0743222099, New York
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *Journal of Psychology*, 91, 1, ISSN 0022-3980, 93-114.
- Rosenstock, I. M. (2000). Health belief model. In: *Encyclopedia of Psychology*, Vol. 4, A. E. Kazdin, pp. 78-80, Oxford University Press, ISBN 1-55798-653-3, Washington, USA
- Sahota, A. (2007). Overview of the global market for organic food and drink, In *The World of Organic Agriculture – Statistics and Emerging Trends 2007*, H. Willer & M. Yussefi (Eds.), pp. 52-55, International Federation of Organic Agriculture Movements, ISBN 3-934055-82-6, Bonn, Germany
- Schifferstein, H. N. J., & Oude Ophuis, P. A. M. (1998). Health-related determinants of organic food consumption in The Netherlands. *Food Quality and Preference*, 9, 3, ISSN 0950-3293, 119-133
- Schofield, N. G., Green, C., & Creed, F. (2008). Communication skills of health-care professionals working in oncology – can they be improved. *European Journal of Oncology Nursing*, 12, 1, ISSN 1462-3889, 4-13
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, ISBN 0-12-015225-8, 1-65
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50, 4, 19-45, ISSN 1540-4560
- Schwartz, S. H., & Howard, J. A. (1981). A normative decision-making model of altruism, In *Altruism and Helping Behavior*, J. P. Rushton & R. M. Sorrentino (Eds.), pp. 89-211, Erlbaum, ISBN 978-0124630505, Hillsdale
- Simonson, I., & Winer, R. S. (1992). The influence of purchase quantity and display format on consumer preference for variety. *Journal of Consumer Research*, 19, 1, ISSN 0093-5301, 133-138

- Sirieix, L., & Schaer, B. (2005). *Buying organic food in France: shopping habits and trust*. Working paper 1/2005, Moisa, Montpellier, France, retrieved online: <http://129.3.20.41/eps/othr/papers/0512/0512010.pdf>
- Søderskov, K. M., Daugbjerg, C. (2011). The state and consumer confidence in eco-labelling: organic labelling in Denmark, Sweden, the United Kingdom and the United States. *Agriculture and Human Values*, online first, ISSN 1572-8366, 1-11
- Soler, F., Gil, J. M., & Sanchez, M. (2002). Consumers' acceptability of organic food in Spain – results from an experimental auction market. *British Food Journal*, 104, 8, ISSN 0007-070X, 670-687
- Storstad, O., & Bjørkhaug, H. (2003). Foundations of production and consumption of organic food in Norway : Common attitudes among farmers and consumers? *Agriculture and Human Values*, 20, 2, ISSN 0889-048X, 151-163
- Tang, E., Fryxell, G. E., & Chow, C. S. F. (2004). Visual and verbal communication in the design of eco-label for green consumer products. *Journal of International Consumer Marketing*, 16, 4, ISSN 0896-1530, 85-105
- Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107, 11, ISSN 0007-070X, 808-822
- Teisl, M. F., & Roe, B. (2005). Evaluating the factors that impact the effectiveness of eco-labelling programmes, In: *Environment, Information and Consumer Behaviour*, S. Krarup & C. S. Russell, pp. 65-90, Edward Elgar, ISBN 1-84542-011-X, Northampton, Massachusetts, USA
- Truninger, M. (2006). *Exploring trust in organic food consumption*. Paper presented at the Joint Organic Congress, Odense, Denmark, 30-31 May 2006, available online: <http://orgprints.org/7512/>
- Thøgersen, J. (2000). Psychological determinants of paying attention to eco-labels in purchase decisions: Model development and multinational validation. *Journal of Consumer Policy*, 23, 3, ISSN 0168-7034, 285-313
- Thøgersen, J. (2006). Norms for environmentally responsible behaviour: an extended taxonomy. *Journal of Environmental Psychology*, 26, 4, ISSN 0272-4944, 247-261
- Thøgersen, J. (2010). Country differences in sustainable consumption: the case of organic food. *Journal of Macromarketing*, 30, 2, ISSN 0276-1467, 171-185
- Thøgersen, J., Haugaard, P., & Olesen, A. (2010). Consumer responses to eco-labels. *European Journal of Marketing*, 44, 11-12, ISSN 0309-0566, 1787-1810
- Thøgersen, J., & Ölander, F. (2006). The dynamic interaction of personal norms and environment-friendly buying behaviour: a panel study. *Journal of Applied Social Psychology*, 36, 7, ISSN 0021-9029, 1758-1780
- Verdurme, A., Gellynck, X., & Viaene, J. (2002). Are organic food consumers opposed to GM food consumers? *British Food Journal*, 104, 8, ISSN 0007-070X, 610-623
- Verhoef, P. C. (2005). Explaining purchase of organic meat by Dutch consumers. *European Review of Agricultural Economics*, 32, 2, ISSN 0165-1587, 245-267
- Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64, 3, ISSN 0921-8009, 542-553

Zanoli, R., & Naspetti, S. (2002). Consumer motivations in the purchase of organic food : A means-end approach. *British Food Journal*, 104, 8, ISSN 0007-070X, 643-653

IntechOpen

IntechOpen



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.

How to reference

In order to correctly reference this scholarly work, feel free to copy and paste the following:

Christian A. Klöckner (2012). Should I Buy Organic Food? A Psychological Perspective on Purchase Decisions, Organic Food and Agriculture - New Trends and Developments in the Social Sciences, Dr Matthew Reed (Ed.), ISBN: 978-953-307-764-2, InTech, Available from: <http://www.intechopen.com/books/organic-food-and-agriculture-new-trends-and-developments-in-the-social-sciences/should-i-buy-organic-food-a-psychological-perspective-on-purchase-decisions>

INTECH
open science | open minds

InTech Europe

University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
Fax: +385 (51) 686 166
www.intechopen.com

InTech China

Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

© 2012 The Author(s). Licensee IntechOpen. This is an open access article distributed under the terms of the [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

IntechOpen

IntechOpen