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MSc Thesis Chair Group: Marketing and Consumer Behavior

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## MSc Thesis

Possible effects of social proof and commitment and consistency on consumption and purchase intention towards organic products

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## Introduction

The fast growing development of the global food market raises a lot of issues concerning food safety, health, environment, fair trade and the economics of consumers and countries. In the beginning of 2014, IFOAM reported a growth rate of 6 % of the organic agricultural land in the EU- 28 in 2012 and stated that the growing rates for 2013 are similar to the rates in 2012 (IFOAM, 2014). However, it is a natural process that the organic food markets in the different countries show stagnation, while others are gradually expanding (IFOAM, 2014). It is estimated, the statistics show a tendency of slow, but continuous growth of organic products' consumption throughout Europe. Although it can be claimed that the interest toward organic products is increasing, the organic food have to compete with many other food substitutes especially at the convenient stores (IFOAM, 2014). Led by the statistics or by the consumers' interest, a lot of specialized stores like Eko Plaza in The Netherlands, where the growth rate of the organic market for 2012 is reported to be 14.2 % (IFOAM, 2014), are now competing for a market share.

Meanwhile, recent studies have shown that the consumers are pragmatic, thus the shopping has to be efficient for them (Chrysosoidis & Krystallis, 2005). A number of factors connected to our modern lifestyle like changing demographics, pressure to increase productivity and more focus on avoiding stress contribute to the striving of consumers towards faster and more convenient shopping behaviour (Candel, 2001; Jabs & Devine, 2006; Scholderer & Grunert, 2005). Therefore, a need for achieving the balance between the tendencies of more convenient shopping, compatible with consumers' everyday life and keeping the growth of organic foods consumption arises.

A study, done by Ulf Hjelm in 2010 of the Danish market (with 7, 6 % market share in 2012 according to IFOAM) shows that for the convenient consumer the organic products need to be available all the time in the local supermarkets. For the Danish consumers, the limited choice of organic food in the local supermarket is an issue. Moreover, the low visibility of organic products among the conventional products are lowering their shopping experience. For most of the consumers, the prices of organic food should be able to compete with the conventional food prices. In addition, the consumers, involved in Hjelm's study, stated that shopping had to be efficient in order to fit into the daily schedule. Led by a country of origin biases and thus a perception of higher quality and fresher food products, the consumers of organic food claim that they prefer to buy organic products, which are produced in their own country. The case of Denmark successfully shows us and advises us that in order to increase the amount of organic food products sold and make them a natural and frequently made choice, governments need to actively implement and participate in reforms and promote activities together with supermarkets (Hjelm, 2010). However, not every country's government is ready and willing to implement such actions, which lead the stakeholders of organic production chain to the necessity of another means in order to change the consumers' shopping behaviour. The stakeholders of organic production chain as well have the responsibility of increasing the awareness of issues raised by the consumption of conventional food and the possible health

and environmental benefits of purchasing and eating organic food products. At the same time the stakeholders are responsible for lowering the barriers between consumers and organic products.

In order to achieve an ecological and sustainable life, to protect the environment, and the setting we are all living in, we need to take actions towards keeping the process of growing the organic food consumption and production. Because by producing, therefore consuming organic products, we are helping not only the environment, but ourselves, ensuring healthy living with lower exposure to pesticides, antibiotics and other dangerous chemicals, used in the conventional agriculture. Moreover we provide our existence with clean air, clean soils, therefore clean food and water.

However we don't have enough knowledge in marketing strategies, which can motivate consumers to buy more organic products yet. Therefore, the purpose of the present study is to find out a possible way of changing the purchase behaviour of the consumers towards organic foods purchase and consumption by influencing them to buy more organic products. Meanwhile we expect that the results of the current study would help the marketers and companies to increase their organic products sales.

For a decades, Robert Cialdini and other scientists have studied the possibilities of influencing the consumers towards certain purchasing behaviour. The book *Influence, the psychology of persuasion* by Robert Cialdini represents the six main influencing principles. In short, the six principles are reciprocity, commitment and consistency, social proof, liking, authority and scarcity. A deeper insight of all of the principles is provided further in the current paper. In order to find out the answer of the present research questions, thus to investigate whether we can influence the convenient consumers to consume and purchase more organic food through the implementation of social proof and/ or commitment and consistency influencing principles, a lab experiment will be conducted. Social proof, because previous studies have shown that in order to influence someone to take a certain action, one need to evoke or show a successful example of other people, doing the same thing with a positive outcome for themselves (Cialdini, 2007; Festinger, 1954; Hornstein et al., 1968; Sachiyo et al., 2007). Commitment and consistency, because if we want to have a long term growth of organic food consumption and purchase intention, we need to induce a commitment toward the organic food and therefore we can achieve a consistency in the consumption and purchasing behaviour of the consumers. Because of a diverse reasons, the effects of the other principles are not going to be investigated in the present study. In short the reasons consist of: concerns regarding the short term effect of reciprocity towards food products arise; the principle of authority requires the participation of institutions like government and the principle of liking is based on its biggest part on the principle of social proof, which is most effective if the targeted consumer sees people like him (her), people he (she) like, doing the desired action; the principle or scarcity is not relevant to the present case, because the organic food products can be easily replaced by non- organic products if they are not available on the market at a certain moment.

The principle of social proof has its roots in 1954 when Leon Festinger started studying the social comparison theory. The theory of social comparison showed that the perceived normative behaviour of similar others affects the decision making of the previously targeted consumers. The explanation of the author is that through social comparison with referent others, people validate the appropriateness of their own behaviours (Festinger, 1954). More recently, Cialdini described the principle of social proof as a way of determining of what is correct by finding out what other people think is correct. Thus from the consumers' point of view, if a lot of people are doing something, it is the right thing to do (Cialdini, 2007).

There are a lot of definitions of commitment in the literature. In the present study, the following will be used: commitment is "a thing that you have promised or agreed to do, or that you have to do" (Oxford Advanced Learner's Dictionary, 2010, p. 299). The definition of consistency, provided by Oxford dictionary is: "the quality of always behaving in the same way or of having the same opinions, standards, etc." (Oxford Advanced Learner's Dictionary, 2010, p. 321). To explain further the meaning of the principle, Robert Cialdini stated: "once we have made a choice or taken a stand, we will encounter personal and interpersonal pressures to behave consistently with that commitment" (Cialdini, 2007, p. 57). Therefore the social psychologists believe that to evoke the consistency, we need to activate the commitment first (Cialdini, 2007; Festinger, 1954).

### Aim

Keeping the growing rate of the organic agricultural land and markets is vital to the environment and human health. Thus, with the present paper we aim to provide information as well as possible ways to influence the convenient consumers towards buying and consuming more organic products instead of conventional products. Therefore in the current study we will investigate whether by applying the social proof and commitment and consistency principles, the convenient consumers are going to change their buying and consumption behaviour and how the behaviour is going to change. Furthermore, we aim to find whether the motivations which predict the consumption and purchase intention can be influenced as well. The future results would provide the companies and marketers with the ability to make a reasonable marketing campaigns in order to promote and benefit from organic products, which are now neglected.

### Literature review

In the following chapter a deeper insight of the organic food, what motivates consumers to buy organic food and what are the barriers that prevent consumers to purchase organic food is provided. Furthermore the effects of social proof and commitment and consistency in previous studies will be discussed.

### Organic food

From the definition of organic agriculture, made by IFOAM, one can state that organic food is the food, produced by "... a production system that sustains the health of soils, ecosystems and

people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the share environment and promote fair relationships and a good quality of life for all involved.”(IFOAM, 2008, p.1)

Although in the recent years there is a growth in the average organic products market, the percentage market share of organic products of the total retail sales in the different European countries for 2012 remains low. For example, the highest market share is reached in Denmark- 7.6 %, followed by Austria with 6.5 % and Switzerland- 6.3 %. In Sweden the organic market share of total sales is 3.9 %, in Germany is 3.7 % and in Luxemburg is 3.1 %, while in the other European Union members this percentages are below 3 % (IFOAM, 2014).

After the introduction of organic products on the markets, a lot of researches about the motivation, attitudes, barriers and willingness to pay even extra for the organic label and possible benefits from the organic products were done worldwide. Generally, it is shown that although consumers show convenient behaviors almost all the time, they also show reflexive behavioral patterns. This means that although in many cases consumers act routinely when purchase food, they also reflect upon issues like health, nutritional value, taste, environmental benefits, animal welfare, availability, price and family considerations when decide whether to buy organic or non-organic food products (Arvola et al., 2008; Lusk & Briggeman, 2009). In addition, several researchers state that for many consumers the purchase of organic food is linked to attractive qualities, such as healthy eating and broader social and environmental goals. They have also shown that this plays an important role for consumers in their quest for social acceptance and identification (Bartels & Reinders, 2010; Baker, 2006; Welsch & Kuhling, 2009).

Back in 1987 von Alvensleben & Altmann, (1987), observed a decreasing confidence in the quality of conventional foods. This observation explains why the more recent studies regarding organic purchase motivations show that the most frequently listed reason, predictor of attitudes and purchase frequency of organic food is connected with the concern for one’s own or family health (Guilabert & Wood, 2012; Hughner et al., 2007; Magnusson et al., 2003; Wiern et al., 2008; Zanolli & Naspetti, 2002). Recently, consumers have begun to realise that the food choices everyone is making regarding his (her) self and family, may have serious consequences for their health. Therefore, consumers have begun to pay more attention to the quality and health benefits of food in order to sustain a healthy lifestyle (Chrysochou, 2010). The issues with the increasing health problems seem to influence the industry as well and evoke the companies to produce and thus provide healthier products (Seiders & Petty, 2004). Likewise consumers are also determined to take actions themselves and add organic products to their shopping lists in order to improve their health state (Siro et al., 2008; Verbeke, 2005). Although some studies have shown that there is no explicit evidence that organic foods are healthier than conventional foods (Torjusen, et al., 1999), consumers tend to perceive foods labelled as organic to be healthier than non- organic food (Magnusson et al., 2001; Torjusen et al., 1999).

In the past decade, health claims are gaining popularity, thus a couple of studies are conducted in order to understand whether putting a health claim on the organic product's package is a profitable strategy. The consumer studies, investigating the issue of health claims and organic products, suggested that products with health claims are often perceived as less natural (Kahl, et al., 2012; Lahteenmaki et al., 2010). This answer leads us to the necessity of a further researches whether the most effective health claim is just the organic label and what can be done in order to attract more people to buy organic food as part of their everyday healthy diet.

In addition, consumers also pay a considerable amount of attention to the environmental aspects, price and organoleptic features of organic products. However, the conclusion of several studies show that consumers would not sacrifice organoleptic properties for potential health benefits (Markovina et al., 2011; Traill et al., 2008). Although previous studies have shown that there is no explicit evidence that organic products have less harmful impact on the environment, concerns for one's health and for the environment turned out to be the two most commonly stated motives for purchasing organic foods throughout the years (Backer, et al., 2009; Woodhouse, 2010; Wandel & Bugge, 1997). Despite this, it was shown that consumers tend to believe that organic products have positive environmental implications. Moreover, based on this belief, many consumers think that the organic food choice is the morally right thing to do. By choosing the "right thing", consumers provide themselves with an internal reward. Therefore, this moral feeling leads to future intentions to purchase organic food (Arvola et al., 2008).

The general difference between health and environmental motives is that health can be regarded as self- interest motive, while the support of environmental issues are more altruistic considerations. In short, the self- interest motives are related to the fact that people by nature, "tend to seek out material or esteem- related outcomes", which benefit the individual him (her) self (van Lange et al., 2007, p. 5). On the opposite side, the altruistic motives can be described as actions towards benefiting other person or the society (van Lange, 2008). In addition, it was assumed that the altruistic considerations often depend on personal behaviour and carry economic costs for the individual (Antonides & van Raaij, 1998). Therefore, only a minority of consumers are willing to sacrifice personal benefits in order to contribute to the benefit of the society (Wandel & Bugge, 1997). Thus, it can be said that in the society of convenient consumers, the self- interest or egoistic motives are stronger than the altruistic motives.

Falguera (2012) argued that the difference in yields in the organic agriculture may leads to difference in the prices between the organic and conventional products. In the same sense, even though most consumers think that organic products may be safer, they are only willing to pay for them if the organic food or other non- food products are for their children. (Falguera, et al., 2012). The lack of clarity whether organic products are more environmentally friendly than the conventional products and the difference in prices, very often is the possible reason why consumers are not willing to change their shopping habits.

### Influencing principles

As previously mentioned, one of the most important reasons why consumers purchase organic food is related to consumers' perception of healthy and unhealthy products. Therefore the consumers' main motivation is to consume foods that may provide them and their families with health benefits. However, in the fast developing market world, the industries' profit interests have undermined the use of the adjective natural, as well as the term organic, which leads consumers to a generalized mistrust towards such labels and understanding that labelled food do not necessarily mean safe, healthy food (Carvalho & Luz, 2011). Moreover, the large amount of information provided by the goods' packages usually increases consumers' confusion, especially when it is related to health and environmental claims. Led by the statement of King in 1975, that if someone is experiencing uncertainty in social situation, he (she) is most likely to seek information from others in order to make an easier and informed decision (King, 1975), in the present study, a possible solution of this problem as well as the need of increasing the consumption of organic products will be provided by the application of the influencing principle of social proof. The principle of social proof is based on the rule, that in order to do the right thing, we are in some extent copying the behaviour of our relevant others (Cialdini, 2007).

As we are talking about environmentally friendly products like recycled paper or organic food, we know that they come with sometimes lower quality and almost always at higher price or require an extra effort in order to achieve the main aim, for example recycling the bottles and plastics (Vaidyanathan & Aggarwal, 2005). However, this extra requirements are frequently perceived as a barrier between the product and its purchase from the consumers. Furthermore consumers say, that they care about the environment and buy products with low carbon footprint, but in reality, they do not take any additional actions and continue with passive behavior (Beattie, 2010). It was shown, that once an individual have already made a choice to buy something, he (she) can easily become consistent with this choice, or this individual will start to behave consistently with the previously made commitment (Cialdini, 2007). Therefore we aimed to find a way to influence this consumers to buy environmentally friendly products like organic food in the present case and investigate if this influence can be done by evoking a commitment toward certain personal cause. Therefore in the present study the possible effect of applying indeed the principle of commitment and consistency will be examined. We will try to achieve a consistency in the purchase of organic products, therefore we aim to establish a commitment towards the qualities of organic foods which different people consider as personally important.

Led by this two statements, the present study is going to investigate the possible outcome of applying the principles of social proof and commitment and consistency into the case of organic products at the convenient supermarkets.

Because the six influencing principles, described by Robert Cialdini are different and can be applied in different situations, the present paragraph is going to provide a deeper insight into the basis of all of them. In order to represent contemporary information, the following few

paragraphs will be based mainly on the Cialdini's book Influence, the psychology of persuasion from 2007.

According to the principle of reciprocation, everyone should try to kindly repay what another person had provided to him (her) (Cialdini, 2007). Reciprocation can be seen in another studies and real life examples like agreement to do someone a favour after this person provide you with something small like a cup of coffee or bottle of soda or just because this person is someone you like (Regan, 1971). The groups of Hare Krishna provide us with another powerful example of reciprocation, by gaining donations with the act of giving their "victims" a small gift (Cialdini, 2007). The best and most known example of reciprocation in the case of food products is the "free sample" studied decades ago (Packard, 1957), which might be a good topic for further research, because there is a possibility of a short term effect of the principle regarding organic products. Most generally, the rule of reciprocation is based on the statement that a small initial favour is creating an obligation to be paid back with another, even bigger favour. Moreover, because the reciprocal promises are an important part of the human social systems, people feel uncomfortable when they have to beholden this promises (Cialdini, 2007). Therefore, it's doubtful whether the principle of reciprocation is effective if we want to create a long term change in someone's everyday shopping behaviour.

The fourth principle, described by Cialdini is liking, which is based on the statement that every human being is most likely to agree or comply with a request, made by someone familiar, who he (she) likes. This is actually why this principle is so close to the principle of social proof. Because we like people, who are similar to us, we are more likely to comply with their requests. The author described the power of liking with the help of a couple of examples from sales techniques, which in fact combine all of the influencing principles, described by him. The idea behind this normally home- based sales is simple: the targeted customers are buying from a friend, a familiar person. The sale/ purchase most frequently happens in the house of someone, who invites his (her) friends for a party while a presentation about the products is done, involving games with small products prizes and at the end- invitation for a "voluntarily" purchases. "Voluntarily", because everyone, who is invited feel an obligation first to accept the invitation, because it's from a friend and second, an obligation to buy a product, because it's for a friend (the hostess, who earns a percentage of every sale) (Cialdini, 2007). Another example comes from an experiment, in which individuals were placed in front of a monitors, where a faces of other people were quickly flashing. When later on the same faces were displayed slowly, no one of the participants could recall any of the faces. However in a social interaction between the participants afterwards was observed that the people tend to like more ones whose face was most frequently flashed on the screen (Bornstein et al., 1987). As said previously, the principle of liking is more or less based on the previous principles and in order to avoid further complication in the present study, the possible effects of this particular principle is not going to be examined.

The principle of authority give us an information how one is acting in a situation, where an information or request from a recognized authority is made (Cialdini, 2007). It was previously mentioned, that in order to increase the consumption of organic products, the governments should actively participate in informational and promotional activities (Hjelmar, 2010). In the same sense, Cialdini, 2007 claims that if a recognized authority provide us with valuable shortcut for a way of acting in a particular situation, we as human beings are very likely to adopt the suggested path. A suitable example is provided by the familiar act of obedience to a doctor's orders. Since, in order to investigate, whether the principle of authority is effective in the case of organic products, an involvement of recognised authorities is necessary, this principle becomes difficult to be tested in a controlled environment like an MSc thesis research. Moreover, in the different countries the trust in authorities, like government is not equal and sometimes too low. Therefore, the focus of the present study will be on another two principles.

Finally, the sixth principle is based on the fact that the thought of losing something is a more powerful motivator than the thought of gaining something. For example, a study is made, in order to discover that homeowners, who have been told the size of their loss if they don't make a house isolation, rather than how much money they are going to save, are more likely to isolate their homes (Gonzales et al., 1988). A similar effect have a pamphlets, encouraging young women to check for breast cancer. If the brochures state the positive outcomes of the examinations, they are likely to attract less women. Instead, if the pamphlets show what is to be lost, the effect is more actively participating women (Chaiken & Meyerowitz, 1987). Another illustration of the principle of scarcity is coming from the collectors, which lay on the principle that if something is rare, therefore it is valuable. More or less the same principle is used in a lot of stores. Their trick is to attract the customer's attention and desire toward a particular product and after that declare that this product is not in stock. As a rule the attractiveness of the desired product jumps remarkably (Cialdini, 2007). Unfortunately, this influencing principle is difficult to be applied in the case of organic products because they can be easily substituted by another either organic or conventional products.

In order to achieve the aim of the present study, the possible effects on organic products of the principles of social proof and commitment and consistency will be examined.

### Social proof

As said before, the principle of social proof has its roots from the early 1954. By now different researchers demonstrated that the principle of social proof is not only valid today, but also applicable in a lot of diverse situations. In 1968 Hornstein, Fisch and Holmes showed how by applying the principle of social proof, a lost wallet is returned or not. The study was based on an "accidentally" dropped wallet on the street. The wallet contained a little amount of money, the address of the owner and a letter, which indicates that the wallet was actually lost twice. In order to investigate when the principle of social proof is more powerful, if it is provided by similar or dissimilar others, the authors of the study about the lost wallet placed two different kind of letters in the wallet. They had the same text, indicating that the person who found the wallet is very glad that he/she can turn it back and therefore be helpful. The difference

between the two letters was the fact that one of the messages was written in a native American English and the other message was written in a way, which showed that the person who wrote it is not a native American citizen. As a support for a previous statements and an important fact, used further in the present study, the results of Hornstein and his colleagues showed that only 30 % of the people who found themselves as dissimilar to the first founder of the wallet, sent it further to its owner. But which is more important, 70 % of the people, who felt themselves as similar to the person, who wrote the letter, attached to the wallet, were willing to return the wallet to its owner (Hornstein et al, 1968). Therefore, we are most likely to follow someone's example, if we find ourselves similar to this person.

A couple of studies are done regarding donations for charity, some of them even concluded that the social proof condition yielded the highest donation amount as well as highest total amount of donation (Reingen, 1982; Sachiyo et al, 2007). A study about reuse of towels and linens in hotels, showed that if the money saved from laundry are going for a good cause and if a list of other guests, reusing their towels and linens is shown, then more people are willing to participate in the cause, thus the principle of social proof is valid (Shang et al, 2009; Goldstein et al, 2008). In a series of experiments in 1982, Reingen demonstrated once more that the principle of social proof is a powerful technique if we want to collect money for charity. By showing to the targeted student donors a list of other students, previously donated money for a good cause, the researcher gained a greater number of compliers. After that he conducted the same experiment to an adult residents. Logically, the results repeated the previously finding. The third experiment repeated the first one with the difference in the donation. The targeted students were asked to donate blood instead of money. The results showed, that after the exposure of a list of other donors, most of the students are willing to donate blood. In order to find out what evokes the behavior of the previously targeted participants in the experiments, Reingen conducted a different experiment, which results show that people are ready to donate either money or even blood in order to do the right thing and act socially acceptable. Moreover, the experiment showed that there is a minimum amount of donors in the list, which should be presenting in order to gain the desired higher compliance rate. In addition to this experiment Reingen shared the amount of money, each person have already donated. This additional information led the author to the outcome that the greater the amount of previous donations, the greater the amount of new donations. In the same sense, the greater the number of compliers in the list, the greater the number of new donors. Another, last experiment was made among adults, which only proved the outcome of the fourth experiment. Together with the findings about the influencing power of social proof, the researcher made another important conclusion. Indeed, the social proof is a powerful technique, but it is only valid if the request is in the bounds of the acceptable social norms (Reingen, 1982).

Albert Bandura and his colleagues showed how we can overcome the fear of dogs in the children, by applying the social proof principle. The aim of the study was to eliminate undesirable behavior by applying the principle of social proof. Two experiments were conducted. In the first experiment, the authors used small children, who were afraid of dogs. The result shows that after four days of watching another child, happily playing with his dog

only for 20 minutes, 67 % of the observed children lost their phobia and became more willing to play with dogs in the future. In the second experiment, the authors played short videos with different children, interacting with their dogs. As expected, the results were similar to the results from the first experiment. Moreover, the whole study not only showed that social proof works when the example is provided by similar others, but also by a lot of similar others. The study is of huge importance, because it demonstrated that with the use of social proof, one can create a long term behavioral pattern. Moreover, the principle can be used as a treatment for an undesirable conditions like phobia (Bandura et al, 1967).

After developing the theory of “werther effect”, which describes the manner of copycat suicides happened after the information about the act is published in the media Phillips and Carstensen showed that the “werther effect” is able to evoke an imitation effect (Phillips & Carstensen, 1988). In order to provide the reader with a better understanding about the theory of social proof, Robert Cialdini implemented the “werther effect” into an illustrative example. To demonstrate that in its nature, the principle of social proof is an act of imitation of what similar others are doing, Cialdini described how fatal, suicidal crashes increased their frequency in a certain region after a news about suicide have been highly publicized in the same region (Cialdini, 2007).

The previous statements have shown so far that, the principle of social proof is often most powerful when people are observing the behavior of other people who are just like them. In addition, other researchers have shown that if a feelings of belonging are evoked into a group of consumers who share similar ideas on a certain kind of behaviour, the effect would be in stimulating consumption behaviour towards certain kind of products (Bartels & Reinders, 2009). In addition, if people feel connected with a group, they describe themselves expectedly in terms of the characteristics of this group. When someone is strongly identifying him (her) self with a group, therefore he (she) has positive attitudes towards the group and group attitudes towards something (Mael & Ashforth, 1992)

In order to illustrate the power of social proof, Robert Cialdini (2007) provided many different examples like the influence of canned laughter; the act of filling a charity baskets with more money by the collectors themselves; the announcement of some product as a best seller; the need of having faith in something even ridiculous, only because a lot of other people believe in the same. A powerful example of the principle of social proof is provided by a case of a murder. Cialdini described how a young woman was a victim of cruel murderer in front of the eyes of her neighbours. The surprising fact was that nobody had reported the bloody act to the authorities. The professor described this action, or lack of action with the phenomenon of “pluralistic ignorance”, which represents the failure of a whole group of witnesses, to help someone in need, even if he (she) is a victim of a murder. Two possible reasons are listed in order to explain the phenomenon. First, with the increasing of bystanders presenting, the perceived personal responsibility of each individual decreases. And second, the involvement of social proof, if no one else is taking an action to prevent what is happening, perhaps, there is no

emergency. The second reason explains the principle of social proof in terms of confusion. The example is an illustration of the behaviour of people when they do not know what to do in a certain situation. Therefore, they are behaving in a way, which other people around them are showing. In the case of organic products, which are likely to evoke a feeling of confusion among consumers, the possibility that social proof can create a valuable opportunity of decreasing the confusion and increasing the consumption is going to be expected (Cialdini, 2007).

In order to explore whether the influencing principle of social proof is effective in the case of organic products, a study testing the following hypothesis will be established:

**Hypothesis 1:** By applying the principle of social proof to an ordinary situation, the consumption and purchase of organic chocolate will be higher, compared to the consumption and purchase in a neutral situation.

The expected outcome of applying the social proof influencing principle is higher consumption and purchase of organic chocolate, because the participants in the study will be able to think about their friends and relatives (similar others) who are expressing the expected behaviour and consuming organic chocolate.

#### Commitment and consistency

Commitment and consistency is the second principle that will be examined in the present study. The purpose of the study is to investigate whether a long- term lasting, continuously increasing organic products consumption can be created. Therefore, the goal is to see if we can establish a consistency in the consumers. In order to create a consistency, we need to evoke a commitment first. The specific methods of creating the commitment and consistency will be described later on, in the next chapter of the present document. In the following chapter, a review of previous studies regarding commitment and consistency is provided.

There are a couple of field studies made in a hotel environment regarding the reuse of towels and linens by the customers. One of the studies is made by Shang, Basil and Wymer and shows the effect of social proof (Shang et al, 2009). Another more recent study, based on the same case of hotel towel reuse program is made by the American researchers Baca- Motes, Brown, Gneezy, Keenan and Nelson in 2013. By exposing the hotel guests to seven different situations, Baca- Motes and colleagues demonstrated the effect of commitment and consistency. The experiment was as follows, seven different groups of customers were exposed to seven different situations. Some customers followed the standard check in procedure, another groups of customers were showed two types of cards, claiming that they are going to behave environmentally friendly during the visit or claiming that the guests are going to reuse their towels. Different customers were provided with branded pins, which role is to show to other hotel guests that the possessor of the pin is “friend of the Earth”. Some guests have the option to commit to the cause, but others don’t have this option. The results of the study simply showed that the response rate of hotel guests, who made a commitment reuse their towels and switch off the electricity when leaving the room are 20 % without receiving a pin and 28 % if

received a pin. The response rate of customers, who made the commitment to behave sustainably and receive a pin are 25 % versus 22 % who don't receive a pin. The customers, who receive a pin only and behave consistently to their commitment were 22 %. Therefore, the results show that when a commitment is made and supported by a publicly showed symbol, people are more likely to be consistent to their commitment, especially when the cause is in a support of the environment (Baca- Motes et al, 2013). The authors suggested that the pin serves as a reminder of the commitment's importance not only to the self, but to the other people as well (Baca- Motes et al, 2013).

It is found by previous authors that the commitment can lead to a consistency even in a situations of existential importance like leaving bad habits. An experiment, done by Christopher W. Kahler and his colleagues in 2007, shows that if a commitment of personal importance is made, it can lead to a consistency. The researchers recruited a sample of male and female adults, who consider themselves as heavy drinkers and smoke more than 10 cigarettes a day. After the adults agree to participate in the study, they were asked to estimate how important quitting smoking to them is and were exposed to a series of therapies, designed for people with smoking and drinking issues. The results, obtained from the researchers support their previous suggestions that people who previously stated that quitting smoking is very important to them are more likely to actually get rid of the bad habit, than people who do not consider the issue to be of such a big importance (Kahler et al, 2007). Another example of quitting bad habits is provided by Robert Cialdini (2007). The author tells a story about woman, who gave or sent a card to everybody she knows, claiming that she is going to quit smoking. Led by the possible shame by failing to resist the life threatening habit, she actually succeed in quitting smoking (Cialdini, 2007).

Therefore if we put our commitments to a public knowledge and convince ourselves that we are doing this for our own good, we are more likely to be consistent with the commitment we made. However, the commitment to such a things is a thin ice to walk on. There is a possibility that the person, who we try to influence perceive our actions as too persuasive, which can lead to an opposite outcome of the desired one. To reveal that, Jonathan Freedman conducted a study by examining the behavior of two groups of boys. He showed them a couple of toys, among which there were a fancy robot toy, highly desired by the children. The researcher told the first group of boys, that playing with that robot is forbidden and if they play with the robot, they will be punished. With the second group, the situation was calmer. The researcher simply explained the children that it's wrong to play with the fancy toy. On the same day, almost no one reached to play with the robot. However, a couple of weeks ago, when the same two groups of boys were left alone with the same toys, an important aspect of the commitment and consistency principle were revealed. When the researcher was not present, the first group of boys, who previously received a threats, tend to avoid his command. But the second group, who were influenced by the author, were still avoiding the toy, because with the help of Freedman, the children have created an inner sense of what is right and what is wrong and continued to behave consistently with their own commitment (Freedman, 1965).

The effect of commitment and consistency on the consumers is examined by applying the principle on a cases of donations and charitable actions as well. In two studies, Rajiv Vaidyanathan and Praveen Aggarwal tested if they link a particular product to a charitable cause, is the product evaluation towards this product going to change after a consumers have made a commitment to support the linked cause. In the first study, the researchers asked the participants about their attitude towards environmental issues like saving the rainforest. Afterwards, the researchers exposed the previously asked participants to an advertisement of a product, connected to the cause in the following way. With every purchase of the abovementioned product, a certain amount is donated by the producers in a behalf of the rainforest protection. This study showed that participants, who first made a positive commitment towards rain forest protection are significantly more willing to buy the advertised product, than the consumers, who do not make a commitment. The second study examined the power of commitment in two conditions. The experiment was designed to investigate whether the consumers are equally or not equally willing to donate if the money are coming from their own pocket or if the donation is coming from the producer of the product. This time, the results show that consumers are consistent to the previously made commitment toward environmentally friendly cause, but only if it comes by no additional costs for them (Vaidyanathan & Aggarwal, 2005). The topic of charity is widely discussed in the literature. Another aspect of gaining donation is examined by the social psychologist Steven J. Sherman. He started his experiment by simply asking the targeted people whether they are willing to spend three hours a day collecting money for charity. He specified that the money are for the American Cancer Society. In this case, no action is required, only a simple answer, which gained a significant success. However, a few days later, a member of the American Cancer Society called the previously asked people and asked them to actually collect money from their neighbors. The results were a tremendous grow of volunteers, consistent with their previously made commitment (Sherman, 1980). Therefore, it can be concluded that the human nature requires to be consistent with what you have committed, especially if the commitment is made as a support for socially valuable cause like charity.

An experiment, done decades ago also supports the theory of commitment and consistency. The design is simple. A previously recruited person put his (her) blanket nearby a randomly chosen person on the New York's beach. The participant, who were familiar with the experiment turned on his (her) portable radio and after a while, went to swim. There were two cases. First, the randomly chosen bystander were asked to keep an eye on the possession of the study participant, which request were naturally accepted. And second, the bystander were not asked for anything. After a while, another researcher tried to steal the radio. The results of the two cases support the commitment- consistency theory. The researcher found that if the onlooker is not asked to take care of the researcher's possessions, only 20 % of them are willing to run after the thief. On the opposite side, if the person has made a commitment to take care of the possession, the experiment has 95 % success. Therefore, in the case of beach onlookers,

95 % of the people succeed to remain consistent with their previously made commitment and even risk their physical health to do so (Moriarty, 1975).

An illustrative examples of different studies and situations, regarding commitment and consistency were provided in the present study so far. However, the best collection of such examples is in possession of Robert Cialdini. In order to demonstrate the validity of the commitment and consistency principle, the author shared a truth behind the toy sellers and their profit gaining technique. Cialdini provided a personal example to illustrate how after a parent has made a promise to buy a certain highly advertised and therefore desired toy, during Christmas shopping peak, this particular toy is out of stock. Thus, the parent is obliged to buy another toy. After a few weeks, when the Christmas euphoria is gone, but the unfulfilled desire and the hanging promise are still there, the toy is available in the stores. And because the parent has made a promise to buy exactly this toy, therefore has made a commitment to his (her) child, the role of consistency is almost inevitable (Cialdini, 2007).

A couple of different examples have supported the power of commitment and consistency influencing principle so far. In the present study the possible effect of the principle will be investigated regarding the consumption of organic products. Therefore the second hypothesis can be created:

**Hypothesis 2:** By applying the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate will be higher, compared to the consumption and purchase in a neutral situation.

The expected outcome of applying the commitment and consistency influencing principle is higher consumption and purchase of organic chocolate, because the participants in the study will be asked to make a commitment toward organic chocolate, which is expected to create a consistency.

In order to investigate the possible effect of the combination of the two influencing principles, a third hypothesis is made:

**Hypothesis 3:** By applying the principle of social proof and the principle of commitment and consistency at the same time to an ordinary situation, the consumption and purchase of organic chocolate will be higher, compared to the consumption and purchase in a neutral situation and in the previous two situations, where the two principles are separately applied.

The expectation is that by applying the both principles of social proof and commitment and consistency at the same time, the consumption and the purchase of organic chocolate will be higher. The expected outcome is higher consumption and purchase, because if one of the principles does not work for the particular participant, the other one could work and therefore the chance for neutral condition is reduced.

## Methods

A lab experiment was conducted to investigate the possible effect of the influencing principles social proof and commitment and consistency on organic products.

### Participants and design

Participants in the study consisted of Bachelor, Master and Ph.D. Dutch and international students from Wageningen University. The experiment took place in a small research room in Wageningen University for a total of seven days. The participants engaged in the study voluntarily. They were recruited via public announcements through flyers and social media. One hundred and sixty students participated in total. During the analyses, the sample was reduced to one hundred and fifty-seven. Three of the participants were excluded from the sample due to the fact that they did not fulfil the requirements of the experiment by skipping the manipulations part, thus did not enlist any personal situation for buying organic foods. Therefore the information this three participants provided was considered as misleading. Hence the final sample consisted of one hundred and seven females, forty-nine males and one unspecified with  $M_{age} = 21.61$  and  $SD_{age} = 3.22$ .

A 2 (Social proof: yes vs. no) x 2 (Commitment and consistency: yes vs. no) between subjects design was used in the study with Actual choice of chocolate, Indicated choice of chocolate, Future purchase intentions and Attitude towards organic foods as the dependent variables. The participants were randomly assigned to one of the following four conditions:

1. Neutral condition, where neither social proof, nor commitment and consistency was applied;
2. Social proof condition, in which only the principle of social proof was applied;
3. Commitment and consistency condition, in which only the principle of commitment and consistency was applied;
4. Mixed condition, in which both principles of social proof and commitment and consistency were applied at the same time.

In order to establish a comparison basis, a Neutral condition, which consisted only of Choice of chocolate to buy, Future purchase intentions and Attitude towards organic foods variables and no manipulations was created. To test Hypothesis 1, whether by applying the principle of social proof to an ordinary situation, the consumption and purchase of organic chocolate will be higher compared to a neutral situation, the Social proof condition was designed with manipulation of the principle of social proof as independent variable. In the Commitment and consistency condition, a manipulation of the influencing principle of commitment and consistency was performed as independent variable. This way was examined Hypothesis 2, whether by applying the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate will be higher, compared to the consumption and purchase in a normal situation. The expectation was, that the both influencing principles do not have an equal effect on the different individuals. Therefore, to examine Hypothesis 3,

whether the principle of social proof is working for one person while the principle of commitment and consistency is not and vice versa, a manipulation of the both principles in the same time as independent variables was done. The expected outcomes was increased awareness of the benefits of organic food, which can lead to increased consumption and a possibility of increased purchase intention towards organic food.

#### *Procedure and materials*

In order to test the formerly defined hypothesis, four different types of paper based questionnaires were designed. Independently and randomly, upon arrival each participant received one of the four types of questionnaires. The participants were allowed to ask the researcher additional questions regarding the study if something was unclear to them or needed further explanation.

After completing the questionnaire, each participant was thanked for the effort and time to participate in the study. As a form of appreciation for the participation, each participant was rewarded with a small present in the spirit of the study, a chocolate bar of their choice- organic or conventional. The Actual choice of every participant was recorded as dependent variable for the purposes of the study.

Each questionnaire provided brief information about the general objective of the current study first, followed by a short description of organic food and their most valuable qualities. After that the participants were assured that their answers would remain anonymous and would be used only for the purpose of the present study. At the end of each questionnaire demographic information about the participants such as age and gender were requested. The full questionnaires are presented in the Appendix section.

#### *Independent variables*

Right after the introduction part of the questionnaire, the participants were given the manipulation of the independent variables. In the Social proof condition, forty of the participants were manipulated with the Social proof independent variable and read: "In 2014, IFOAM reported growth of the European organic food market. Therefore many people nowadays buy organic foods. You probably also have people in your direct surroundings who buy organic foods. Could you please enlist 4 (four) people (friends, relatives) that you personally know who buy organic foods? (Please, write down only first names.)". By requesting each participant to fill in the names of four friends or family members, who are buying organic foods, we expected that the participants would be influenced, therefore be more willing to buy and/ or consume organic chocolate rather than conventional chocolate.

In order to test whether by applying the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate will be higher, compared to the consumption and purchase in a normal situation, a manipulation of the Commitment and consistency independent variable was created in one fourth of the questionnaires. The participants were asked the following: " There are a lot of situations in

which people buy organic foods. Almost every person has individual reasons in situations to buy organic foods. Could you please describe shortly 4 (four) situations in which you personally would buy organic foods". By writing down their four personal situations, an establishment of participants' commitment towards organic foods was expected, which would result in further consistency when the participants need to choose which type of chocolate would buy and take away.

The third hypothesis suggested that if the both principles of social proof and commitment and consistency are applied at the same time, the consumption and purchase of organic chocolate will be higher than the consumption in the previous two conditions and the Neutral condition separately. In order to test this hypothesis, a manipulation of the both Social proof and Commitment and consistency independent variables was done. The participants were first placed at the Social proof condition and then at the Commitment and consistency condition right after. They read the previously mentioned questions in the same order as they are presented in the current section.

One fourth of the questionnaires were designed to represent the Neutral condition, therefore forty of the questionnaires did not include any manipulation. Thus, the content of the questionnaire, which represents the Neutral condition consisted of dependent variables, general questions and demographic questions.

#### *Dependent variables*

Once the independent variables were manipulated, all of the participants in the study were placed in the following situation: "Imagine the following: You are on your way to the local supermarket to do some grocery shopping. One of the things you need is chocolate. The supermarket has an assortment of four types of chocolate. Which one would you buy? (To see the assortment, please, turn to the final page!)". Pictures with net weight, prices of the four different types of chocolates and organic logo indication for the organic chocolates were presented on the last page of each questionnaire. The assortment was as follows: 1) Verkade conventional milk chocolate, 75 gr, 1.04 € (100 gr, 1.39 €); 2) Vivani organic milk chocolate, 100 gr, 1.67 €; 3) Albert Heijn organic milk chocolate, 100 gr, 1.19 €; 4) Ritter Sport conventional milk chocolate, 100 gr, 1.03 €. This was one of the main dependent variables of the study, Indicated choice of chocolate. The purpose of using four different types of chocolate was to reveal first whether the prior manipulations had gained the expected outcome and participants choose organic over conventional chocolate, and second to reveal the price sensitivity of the sample.

However, there was a possibility that not every participant buy chocolate on a regular basis. Thus, the students were asked the control question: "How likely is that you would buy chocolate in the near future". The answer represented a seven point scale (1= Not at all likely and 7= Very likely).

Afterwards, the participants indicated their future purchase and consumption intentions towards organic chocolate with the same abovementioned seven point scale. The scale showed high reliability with  $\alpha = .89$ . The students were asked "How likely is that you would buy organic chocolate in the near future", "How likely is that you would eat organic chocolate in the near future". With the question "How likely is that you would recommend consuming organic chocolates to your friends" participants showed their recommendation intention towards organic chocolate therefore foods. It is also important to know whether applying the principles of social proof and commitment and consistency have gained a long term effect. Therefore, the organic foods purchase frequency and intention were investigated as well. The following questions were "How likely is that you would buy at least one organic product every time you do your groceries" and "How likely is that you would buy more often organic foods in the near future".

In order to reduce the response bias and at the same time check whether the manipulations gained an effect (decreased organic foods purchase), which is opposite to the expected one, the participants were questioned "How likely is that you would buy less often organic foods in the near future". However, the Decreased organic food purchase dependent variable did not fit into any scale of the factor analyses, because it formed own scale. This created meaningless results, because the corresponding scale was Increased organic food purchase. Therefore, the Decreased organic food purchase dependent variable was excluded from the factor analyses.

The barriers and attitudes towards organic foods were measured with another seven point scale, where 1 was "I completely disagree" and 7 was "I completely agree". Previous studies suggested that very often the availability and the higher price of organic products are considered as a barriers and have influence on the organic foods purchase decision (Arvola et al., 2008; Lusk & Briggeman, 2009). The present study investigated whether after the development of the organic foods market, reported by IFOAM, the availability of organic foods on the market and their price are still issues. For example "I would buy more organic foods if the local supermarket has a richer organic foods assortment and availability" and "I think that organic foods are expensive".

The last four questions with seven point scale answers (1= I completely disagree and 7= I completely agree) revealed the actual attitude of participants towards organic foods. For the purpose were used questions such as "I would buy organic foods because they taste better than conventional foods", "I would buy organic foods because they are of better quality than conventional foods", "I would buy organic foods because they are more environmentally friendly than conventional foods" and "I would buy organic foods because they are healthier than conventional foods". With exception of the environmental benefit, the rest of the questions formed quite reliable scale with Cronbach's  $\alpha = .55$ .

A principle component analyses with orthogonal rotation was conducted and revealed the abovementioned scales. The eigenvalues of two components over Kiser's criterion scored  $>1$  and in combination explained 72.41% of the variance. The Kaiser-Meyer-Olkin measure

suggested good sampling adequacy (KMO=.70). Bartlett’s test of sphericity indicated that the correlations between items were large ( $\chi^2$  (15, N = 157) = 514.80,  $p < .001$ ). Thus, the items that clustered on the same components suggested that component 1 represents participants’ future purchase and consumption intention towards organic foods, therefore it was named Future purchase/ consumption intentions. The second component consisted of the participants’ attitudes towards the organic foods related to their beliefs whether organic is better than conventional because of taste, quality and health benefits. Thus, the second component was named Organic foods benefits. The results of the factor analyses are displayed in Table 1. The scree plot of the present results is represented in the Appendix section.

Table 1 Items and Rotated factor loadings of the motivations and intentions measure

Item	Component	
	Future purchase/ consumption intentions	Organic foods’ benefits
How likely is that you would eat organic chocolate in the near future?	0.97	
How likely is that you would buy organic chocolate in the near future?	0.92	
How likely is that you would buy more often organic foods in the near future?	0.92	
I would buy organic foods because they taste better than conventional foods.		0.78
I would buy organic foods because they are healthier than organic foods.		0.75
I would buy organic foods because they are of better quality than conventional foods.		0.68
Eigenvalues	2.89	1.46
% of variance	48.09	24.32
$\alpha$	0.89	0.55

Participants also indicated what type of consumer is each one of them. At the end of the questionnaire the students were asked to define from where they are normally buying their food. They had the opportunity to choose between the nearest supermarket, special markets, farmers markets or enlist by themselves. As mentioned before, the last questions were demographic- gender and age.

At the end of the procedure every participant received a gift as a form of appreciation for the participation in the study. The presents were two different types of chocolate bars. The participants had the opportunity to choose between Vivani organic milk chocolate and Verkade

conventional milk chocolate. Their specific choice were recorded as a dependent variable named Actual choice.

## Results and Discussion

The preliminary data analyses showed that one hundred and forty- one participants out of one hundred and fifty- seven indicated to be convenient consumers. 90.5 % of the participants said, that they buy their groceries from the nearest supermarket. However, this information made the use of further consumer segmentation as an independent variable in the present study impossible.

Furthermore, analyses indicating if there were a difference between male and female regarding Actual choice, Indicated choice and Chocolate purchase on regular basis was conducted. The results showed no statistically significant difference between male and female when they were asked to choose their reward  $\chi^2 (1) = 0.16, p = .69$ . When participants were asked to indicate which chocolate they would buy, the fact that they were male or female do not influence their choice ( $\chi^2 (3) = 0.18, p = .98$ ) as well. However, it was shown that on regular basis female participants ( $M = 6.07, SD = 1.26$ ) purchase more chocolate than male participants ( $M = 5.35, SD = 1.84$ ) and  $t (69.44) = -2.51, p = .02$ .

Through the manipulations of the influencing principles every participant were asked to enlist four people who buy organic foods or four personal situations in which he (she) buy organic foods or both. However not everyone enlisted exactly four people or situations. The preliminary data analyses showed no difference in the general outcome of the results. Though, it was shown that the participants who enlisted less than four people/ situations were not influenced either by social proof or commitment and consistency or both and all  $\chi^2 s < 4.60, p > .20$ . When we considered more carefully this division, we observed that regarding Actual choice, the participants who enlisted four people and/or situations were influenced only if both principles were manipulated together  $\chi^2 (1) = 4.13, p = .04$ . When indicated choice were analysed, it was discovered that participants who enlisted four people/situations were influenced by social proof ( $\chi^2 (3) = 7.11, p = .07$ ) when manipulated separately and when both social proof and commitment and consistency were manipulated at the same time ( $\chi^2 (3) = 9.57, p = .02$ ). Since no general difference were found between the results of all participants analysed together and these, who enlisted exactly four people/ situations, in the following sections the data of all one hundred and fifty- seven participants will be represented.

**Actual choice.** In order to investigate the effects of the nominal variables social proof and commitment and consistency on the nominal, dependent variable Actual choice, a cross tabs analyses were conducted. First we hypothesized, that by applying the principle of social proof to an ordinary situation, the consumption and purchase of organic chocolate would be higher than the consumption and purchase in the neutral situation. However, the cross tabs analyses of the dependent variable Actual choice showed that there is no statistically significant effect of

Social proof in the absence of Commitment and consistency on Actual choice ( $\chi^2 (1, N = 40) = 0.00, p = .95$ ).

The second hypothesis of the study suggested that if we apply the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate would be higher than the consumption and purchase in the neutral condition. Again, the results of the crosstabs analyses did not support this suggestion and showed that if we take into account the absence of Social proof, there is no statistically significant effect of Commitment and consistency ( $\chi^2 (1, N = 39) = 0.07, p = .79$ ) regarding Actual choice.

Furthermore, we expected that the effect of the two different influencing principles might not be equal on the individual participants. Indeed, the data analyses showed that there is a marginal effect of Social proof if Commitment and consistency is also presenting ( $\chi^2 (1, N = 38) = 2.77, p = .10$ ). Therefore it can be concluded, that there were no statistically significant effects neither of Social proof nor of Commitment and consistency if they were applied separately regarding Actual choice of chocolate. However, applied together, Social proof and Commitment and consistency influenced the Actual choice of the participants. Furthermore, in Table 2 can be seen that most of the participants in the study, no matter in which condition were placed choose Organic chocolate as a reward. However, participants from the Social proof condition chose less often Organic chocolate as a reward, while 77.50 % of the participants in the Neutral condition and 76.90 % of the participants in the Commitment and consistency conditions showed preference towards the Organic chocolate. To support our third hypothesis, the percentage distribution in the Mixed condition showed that 89.50 % of the participants in the mixed condition choose Organic chocolate as a reward for the participation. It was shown that the principles of social proof and commitment and consistency have different influence on the individual participants. Thus, applied together, they have an effect on Actual choice.

Table 2 Actual choice. Percentage distribution among the conditions.

Condition	Organic chocolate	Conventional chocolate	Total
Neutral	77.50 %	22.50 %	100 %
Social proof	75.00 %	25.00 %	100 %
Commitment and consistency	76.90 %	23.10 %	100 %
Mixed	89.50 %	10.50 %	100 %

Indicated choice. To find out whether Social proof and Commitment and consistency have influenced the nominal dependent variable of Indicated choice of chocolate, a preliminary cross tabs analyses were done. The results showed that there is a statistically significant effect of Social proof when the principle was manipulated separately ( $\chi^2 (3, N = 40) = 7.71, p = .05$ ) regarding Indicated choice. Therefore, the results support our first hypothesis. When we

applied the principle of social proof to an ordinary situation, the purchase of organic chocolate was higher than the purchase in the neutral condition.

Meanwhile, the cross tabs analyses did not confirmed our second hypothesis. The expectations was that by applying the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate will be higher than the consumption and purchase in neutral condition. Conversely the analyses indicated no significant effect of Commitment and consistency ( $\chi^2 (3, N = 39) = 5.33, p = .15$ ) regarding Indicated choice. Thus, it can be said, that regarding the purchase of organic chocolate, the principle of commitment and consistency might not have the same power as in the previously studied situations.

Additionally, it was not confirmed that if we apply both principles of social proof and commitment and consistency together at the same time, the consumption of organic chocolate will be the highest among the four different conditions with  $\chi^2 (3, N = 38) = 11.20, p = .01$ . From the percentage ratios among the different conditions regarding Indicated choice displayed in Table 3 can be seen that indeed, the participants in Commitment and consistency condition indicated lowest preference towards organic chocolate, followed by the participants in Neutral condition. Though, the participants in Social proof condition indicated the highest preference towards Organic chocolate 42.50 % (17 participants) than the participants in the other three conditions. Similarly, the participants in Mixed condition (42.50%, 16 participants) showed also high preference compared to Neutral and Commitment and consistency conditions, but with one participant less than Social proof condition. Therefore, we cannot explicitly say that the participants in the Mixed condition showed highest preference towards organic chocolate even though they are shown to be influenced by Social proof and Commitment and consistency. To summarize, the participants in Social proof and Mixed conditions indicated higher preference towards Organic chocolate among only two other conditions and therefore support our first and partly third hypothesis. However, the participants in Commitment and consistency condition indicated lowest preference towards Organic chocolate and thus make our second hypothesis not confirmed. However, it can also be concluded, that even though the students were manipulated by different variables, they still indicated higher preference towards Conventional chocolate rather than Organic chocolate.

Table 3 Indicated choice. Percentage distribution among the conditions.

Condition	Organic chocolate	Conventional chocolate	Total
Neutral	40.50 %	59.50 %	100 %
Social proof	42.50 %	57.50 %	100 %
Commitment and consistency	33.30 %	66.70 %	100 %
Mixed	42.10 %	57.90 %	100 %

**Price sensitivity.** The analyses of participants' price sensitivity showed that even though Verkade milk chocolate was the more expensive choice of conventional chocolate, 44.20 % of the participants in the study choose to buy it. On the second place, 26 % of the participants chose the non- expensive Albert Heijn organic milk chocolate. On the third place in the price classification, the participants put Ritter Sport conventional milk chocolate with 16.20 %. Only 13.60 % of the students chose to buy the most expensive Vivani organic milk chocolate. Moreover, it was shown that the choice of particular chocolate is dependent on Social proof condition  $\chi^2(3, N = 40) = 7.71, p = .05$  and Mixed condition  $\chi^2(3, N = 38) = 11.20, p = .01$ .

**Future purchase and consumption intention.** Furthermore, we investigated whether the influencing principles of social proof and commitment and consistency had effect on the organic foods Future purchase and consumption intention scale. In order to do that, we used Analyses of Variance. It was shown that there is no statistically significant effect of social proof ( $F(1) = 0.28, p = .60$ ) and commitment and consistency ( $F(1) = 0.43, p = .51$ ) on Future purchase and consumption intention scale. Moreover, no interaction between the two influencing principles was found  $F(1) = 2.42, p = .12$ . However, the Analyses of Variance do not show whether there is different influence of Social proof and Commitment and consistency among the different situations regarding Future purchase and consumption intention. Therefore we proceed with Independent sample T tests in order to investigate the difference between Neutral and Social proof situations, Neutral and Commitment and consistency situation and Mixed and the previous mentioned situations. Table 4 displays the means and standard deviations of the Future purchase and consumption intention scale. However no statistically significant difference between the four conditions was found and all  $t_s < 1.59$ , all  $p_s > .12$

Table 4 Means and standard deviations of the Organic chocolate purchase tendency scale

Conditions	Means	Standard deviations	Number
Neutral	4.08	1.41	40
Social proof	4.57	1.31	40
Commitment and consistency	5.12	5.48	39
Mixed	4.14	1.26	38

**Organic foods' benefits.** The results, obtained for the Organic chocolate purchase tendency scale using Analyses of Variance were repeated for the Organic foods' benefits scale. It was shown, that there was no significant effect of social proof on the Organic foods' benefits scale with  $F(1) = 1.90, p = .17$ . No significant effect of commitment and consistency on the Organic foods' benefits scale was found as well,  $F(1) = 0.87, p = .35$ . Similarly no interaction between the both influencing principles on the Organic foods' benefits scale was found  $F(1) = 0.09, p = .76$ . A further in depth comparison between the four conditions was done using Independent sample T tests. It was once again shown that there is no statistically significant difference

between the different conditions regarding the Organic foods purchase tendency scale ( $t_s < 1.41$  and  $p_s > .16$ ). Table 5 represents the means and standard deviations of the Organic foods' benefits scale.

Table 5 Means and Standard deviations of the Organic foods purchase tendency scale

Conditions	Means	Standard deviations	Number
Neutral	4.37	1.48	40
Social proof	4.78	1.26	40
Commitment and consistency	4.67	1.25	39
Mixed	4.93	2.01	38

**Personal situations.** Seventy- eight of the participants were assigned to enlist four personal situations, in which they would buy organic foods. Thirty of the participants in this sample stated that they would buy organic foods if there is not too much price difference between organic and conventional foods. Twenty- five of the participants said that they would buy organic foods because they are healthy and twenty- four said, that organic foods are better for the environment. This findings not only support the previous researchers' statements (Arvola et al., 2008; Lusk & Briggeman, 2009), but also explain the results of the Regression analyses below.

**Motivations vs. Dependent variables.** We expected that the different motivations like Availability, Price, Quality, Taste, Environmental benefits and Health benefits, which led consumers to choose or not organic foods would predict the different dependent variables. Therefore we conducted a several regression analyses which showed us if there are motivations, predictors of dependent variables and which are they.

**Actual choice.** A Binary logistic regression analyses was conducted in order to investigate whether there are motivations which predict the nominal variable of Actual choice. The results revealed that only Availability predicted actual choice Wald (1) = 4.14,  $p = .04$ .

**Indicated choice.** Subsequently, another Binary logistic regression analyses revealed that Availability (Wald (1) = 10.86,  $p < .01$ ), Price (Wald (1) = 8.10,  $p < .01$ ) and Taste (Wald (1) = 6.40,  $p = .01$ ) of organic foods can predict the Indicated choice of chocolate. The analyses, however, showed that no other motivations were predictors of the Indicated choice, *Wald's*  $< 0.12$  and  $p_s > .54$ .

Since the following dependent variables are scale variables, in order to discover whether there are motivations which predict them, a Linear Regression analyses was done.

**Chocolate purchase intention.** The regression analyses showed that neither of the motivations indicated to predict the Chocolate purchase intention and all  $t_s < 1.04$  and  $p_s > .30$ .

*Organic chocolate purchase intention.* The regression analyses of Organic chocolate purchase intention showed that if the availability of the organic products increases, the purchase intention would also increase. Thus, from the results can be seen that the Organic chocolate purchase intention was significantly predicted by Availability ( $\beta = .22$ ,  $t = 2.79$ ,  $p = .01$ ). Price was also a predictor of the purchase intention, but this time the analyses showed that with the decrease of the price of organic products, the consumers should increase their purchase intention ( $\beta = -.35$ ,  $t = -3.31$ ,  $p < .01$ ). Furthermore, Taste showed to be significant predictor of the Organic chocolate purchase intention ( $\beta = .14$ ,  $t = 1.75$ ,  $p = .08$ ). Hence, the participants are more likely to increase their organic chocolate purchases if the product tastes better. The regression analyses of the Organic chocolate purchase intention supported the previous researchers' findings that the Environmental benefits are also important considerations and showed that the Organic chocolate purchase intention is also predicted by the Environmental benefits ( $\beta = .36$ ,  $t = 13.55$ ,  $p < .01$ ). The regression coefficients of Quality and Health benefits remained non-significant  $ts < 1.32$  and  $ps > .18$ , which made them not relevant when the participants decide which type of chocolate to buy.

*Organic chocolate consumption.* The Linear regression analyses showed that Price and Environmental benefits significantly predicted the Organic chocolate consumption. The coefficients obtained through the linear regression analyses ( $\beta = -.25$ ,  $t = -2.05$ ,  $p = .04$ ) revealed that if Price decreases, the more willing to increase their organic chocolate consumption. In addition, if the Environmental benefits from the organic chocolate are higher, the consumption of organic chocolate should increase as well ( $\beta = .54$ ,  $t = 18.14$ ,  $p < .01$ ). However the regression coefficients of the other motivators were non-significant (all  $ts < 1.16$  and all  $ps > .25$ ), therefore Availability, Taste, Quality and Health benefits are of less importance when one chose to buy organic or conventional chocolate.

*Recommendation intention.* The Recommendation intention was also predicted by Availability and Price, and Taste with  $\beta = .40$ ,  $t = 4.37$ ,  $p < .01$ ,  $\beta = -.25$ ,  $t = -2.04$ ,  $p = .04$  and  $\beta = .25$ ,  $t = 2.69$ ,  $p = .01$ , respectively. Reading the regression coefficients, we can say that the participants would be more likely to recommend organic chocolate to their friends if there were higher availability of the product and if they like the taste of the organic chocolate. If the Price of the organic products decrease, we expect that the recommendation intention will increase. Meanwhile, the regression coefficients of the other motivations showed no significance  $ts < 1.53$  and  $ps > .13$ . Therefore we can say that Quality, Environmental and Health benefits are not determining factors regarding one's recommendation intention.

*Purchase amount of organic foods.* The Linear regression analyses revealed that the Purchase amount of organic foods was significantly predicted by Availability ( $\beta = .40$ ,  $t = 4.36$ ,  $p < .01$ ) and Price ( $\beta = -.37$ ,  $t = -3.00$ ,  $p < .01$ ) and Environmental benefits ( $\beta = .57$ ,  $t = 1.83$ ,  $p = .07$ ). The regression coefficients showed that if the availability of organic food increase, the purchase amount of organic foods would also increase. In addition, with the decrease of organic foods' price, we can expect an increase of the purchase amount. Moreover, the analyses showed that

with the increase of participants' awareness of the Environmental benefits from the organic foods, the purchase amount is likely to increase as well. However, the regression coefficients of the other motivators were  $t_s < .81$  and  $p_s > .42$ . Thus, it was shown that when participants make decision how much organic foods to buy, they do not take into account their Taste, Quality and Health benefits.

*Organic foods increased purchase frequency.* The Regression analyses showed that only Price and Environmental benefits with are predictors of the Organic foods increased purchase frequency dependent variable. In other words, the decrease of the price of organic foods should lead to increase in the purchase frequency of organic foods ( $\beta = -.27$ ,  $t = -2.37$ ,  $p = .02$ ). If the Environmental benefits from organic products increase, this process should lead to increase in the purchase frequency of organic foods as well ( $\beta = .96$ ,  $t = 33.56$ ,  $p < .01$ ). Though, regression coefficients of Availability, Taste, Quality and Health benefits were non-significant ( $t_s < 1.13$  and  $p_s > .26$ ). In other words this motivators had no power on the participants' decision whether to increase their organic foods purchase frequency.

*Decreased organic foods purchase frequency.* It was shown that only Health benefits are significant predictors of the Decreased organic foods purchase frequency with  $\beta = -.19$ ,  $t = -2.41$ ,  $p = .02$ . Which means that if the consumers perceive that the Health benefits from the organic products are decreasing, they are going to decrease their purchase frequency. Meanwhile all other regression coefficients for this analyses were non-significant,  $t_s < 1.18$  and  $p_s > .24$ . Hence, the participants' decision whether to decrease their organic foods purchase frequency is less dependent on the organic foods availability, price, Taste, Quality and environmental benefits.

*Conditions vs. Motivations.* Furthermore, we expected that the Social proof, Commitment and consistency and Mixed conditions would have an effect on the motivations. Therefore, we conducted an Analyses of Variance and used Social proof and Commitment and consistency as independent variables and the different motivations as dependent variables in order to test whether the four different conditions are predictors of the different motivation. The additional two- way Analyses of Variance showed no significant effect of Social proof, Commitment and consistency and Mixed conditions on the Availability, Price, Quality, Taste, Environmental and Health benefits as motivations. All  $F_s(1) < 2.59$  and all  $p_s > .11$  showed non-significant effect of the conditions. Therefore it can be concluded that the Social proof, Commitment and consistency and Mixed conditions did not predict any of the participants' motivations and attitudes towards organic products.

To summarize, it was first hypothesized that by applying the principle of social proof to an ordinary situation, the consumption of organic chocolate will be higher, compared to the consumption in a neutral situation. The results of the preliminary data analyses showed that Social proof cannot influence the Actual choice of the participants, but have an influence on their Indicated choice. Instead, the availability of the chocolate was the most powerful predictor of the participants' Actual choice. It was shown that when social proof was applied to

an ordinary situation, the purchase of organic chocolate was higher than the purchase in neutral condition. The second hypothesis suggested that by applying the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate will be higher, compared to the consumption and purchase in a neutral situation. However, the Indicated choice of organic chocolate were lower than the Indicated choice in the neutral condition when commitment and consistency was manipulated. In addition we expected that the principles of social proof and commitment and consistency do not have equal power on the different individuals. Therefore we hypothesized that by applying the principle of social proof and the principle of commitment and consistency at the same time to an ordinary situation, the consumption of organic chocolate will be higher, compared to the consumption in a neutral situation and in the previous two situations, where the two principles are separately applied. It was shown that when both influencing principles were applied together at the same time, the Actual choice of organic chocolate was the highest among the other three conditions. However, even though the Mixed condition showed significant effect in the Indicated choice, the manipulation of Social proof and Commitment and consistency did not gain the highest organic chocolate purchase indication. In addition all motivations predict the diverse dependent variables except of Quality. The most powerful motivations were Availability, Price and Environmental benefits.

### Conclusions and recommendations

It was stated so far that organic food is the food produced by "... a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the share environment and promote fair relationships and a good quality of life for all involved."(IFOAM, 2008, p.1). Organic foods are considered as important for the healthy diet, the environmental conditions, better work conditions, animal welfare, and much more reasons which every individual can assume by his (her) self. Therefore, in order the production of organic products to sustain, organic products need to be properly marketed. The statistical information from 2014 showed that the country with the biggest market share of organic products in Europe is Denmark with only 6.7 %. Even though it was stated that there was an approximate 6% growth of the organic agricultural land in Europe for 2013 (IFOAM, 2014), there is still a necessity of means in order to keep this growth and increase the sales and consumption of organic products. Moreover, the results of the present study explicitly confirmed that the twenty- first century consumer is a convenient consumer (Chrysohoidis & Krystallis, 2005; Candel, 2001; Jabs & Devine, 2006; Scholderer & Grunert, 2005). Therefore, to purchase a particular product, this product should be available at the nearest market, especially if this is a highly substitutable product like organic food. Meanwhile, the organic foods are mostly available at the special markets and only limited assortment can be found at the local supermarkets, often hidden between the huge amount of its conventional substitutes and at too high prices.

Because keeping the growing rate of the organic agricultural land and markets is vital to the environment and human health, the marketers need to be able to make relevant campaigns in order to help companies to sell more organic products. Therefore we aimed to investigate whether influencing the consumers through social proof and commitment and consistency would increase the organic foods preference. For this purpose through the manipulation of the social proof and commitment and consistency influencing principles in a lab experiment questionnaires, we created four different conditions.

Our first hypothesis suggested that applying the principle of social proof to an ordinary situation would increase the consumption and purchase of organic chocolate compared to a neutral condition. It was shown earlier in the present paper that if the participants were placed in a situation where they need to choose which chocolate to receive as a reward for the participation in the study neither Social proof nor Commitment and consistency affected participants' choice. Though, most of the participants in Social proof condition chose organic chocolate as a reward, there was no statistically significant proof that indeed social proof evoke their choice. Moreover, it was further discovered that the Availability is the only predictor of Actual choice, which is a logical outcome of the analyses since only two types of chocolate were presented as a possible choice. However there was more than 30% difference between the participants who chose organic chocolate as a reward and the participants who indicated it as a choice to buy in the questionnaire and still there were no explicit evidence, that the Actual choice of the participants could be influenced by the social proof. Although less participants indicated organic chocolate as their choice to buy, a statistically significant evidence that social proof can influence Indicated choice was discovered, which confirms our first hypothesis.

The second hypothesis of the present study suggested that by applying the principle of commitment and consistency to an ordinary situation, the consumption and purchase of organic chocolate would be higher than the consumption and purchase in normal situation. However, no such difference was found in the case of Actual choice. This outcome can once again be explained by the availability of the product. In addition, the participants in the study tended to choose three times more often the organic chocolate as a reward rather than the conventional chocolate. A possible explanation of this phenomenon can be their curiosity towards the organic chocolate, since they might have not taste it already. For some of the consumers the tasting of organic food could be a new experience. Moreover, the organic chocolate reward was the most expensive type of chocolate, which could have make it the more desirable reward. Nevertheless, it was shown that Actual choice was not influenced neither from social proof nor from commitment and consistency when manipulated separately.

Moreover, when asked to indicate which type of chocolate they would buy, the consumers in Commitment and consistency condition indicated organic chocolate less often than any other conditions. This unexpected outcome leads us to the conclusion that even though a lot of scholars already showed that commitment and consistency is a powerful tool for influencing people and it works in a lot of diverse situations, it might not be the best choice for marketing

campaigns. The results of the current study explicitly showed that if we want to increase the purchase and consumption rates of organic products, commitment and consistency is not the right mean to be used. In addition, it was revealed that commitment and consistency did not only show non-significant results regarding Actual and Indicated choice, but also on the Future purchase and consumption intentions scale and Organic foods benefits scale. Furthermore, the analyses of variance showed that neither social proof nor commitment and consistency predicted the participants' attitudes and motivations towards organic chocolate and organic foods.

Furthermore, we aimed to discover whether the both principles of social proof and commitment and consistency together would gain the highest consumption and purchase of organic chocolate among all other conditions. For this purpose we created our third hypothesis. It was found that indeed, when applied together social proof and commitment and consistency might have influence on the participants' choice of reward. Indeed 87.47% of the participants in the Mixed condition chose organic chocolate as their reward, but the statistical evidence of this showed marginal significance, which can be a result of other processes as well. Furthermore, it was shown that the joint manipulation of social proof and commitment and consistency significantly affect the participants' Indicated choice of chocolate. However the highest purchase indication was not obtained in the Mixed condition, which makes our first hypothesis partially confirmed.

Almost 80% of the participants chose organic chocolate as their reward while almost 40% indicated that they would buy one of the two types of organic chocolate. Taking into account, that most of the participants listed Price as their personal motivator or barrier towards organic foods and the findings of the regression analyses, it can be said that the interest towards organic food shouldn't be an issue. Therefore a more powerful means and policies of the marketing and agricultural industries are needed in order to sustain the growing market share of organic products and fulfil the consumers' requirements.

When asked to enlist four personal situations of buying organic foods, the participants enlisted mostly Price, than Health benefits and after that Environmental benefits among diverse other reasons. However, Health benefits did not show up that often as a predictor of the dependent variables. Nevertheless, it was once again confirmed that the egoistic motives are stronger than the altruistic motives when a consumer need to make a purchase decision (Wandel & Bugge, 1997). However, when analyzing the effect of the different motivation on the dependent variables, it was discovered that Quality did not predict any of the dependent variables.

As mentioned previously, the results of the present study are of importance for the marketers as well. The outcomes suggest that if social proof is used alone or in a combination with commitment and consistency, it can influence the consumers' purchase decision, therefore increase the organic foods purchase. However, most of our suggestions was not confirmed and it can be concluded that commitment and consistency itself has not enough power to change the consumers' purchase and consumption behavior. Therefore in order to design more

successful marketing campaigns for the purpose of increased organic foods purchase and consumption, marketers could use the principle of social proof alone or together with another mean of influence. Moreover, if an increased organic foods purchase intention is desired, the marketers should pay special attention on price and emphasize on the environmental benefits of organic products. However, the price of the organic products do not depend on marketers, therefore all stakeholders of the organic foods production chain should be actively participating in the process of price formation.

### Discussion

However in the real life, the expectation of influencing the consumers with a simple manipulation is an ambitious aim, especially in a short lab experiment environment. Moreover, it is often a process, which requires more time investment. The establishment of attitude or motivation towards the purchase or consumption of certain product develop in time, therefore the change of peoples' attitudes or motivations requires deeper insight towards what can provoke them and what can possibly change them.

### Limitations

The current study suffers from several limitations. They are briefly explained in the present section.

First, the manipulations of social proof and commitment and consistency influencing principles were done in the beginning of the questionnaires (see Appendixes 3, 4, 5). Right after the manipulations, the participants were asked to indicate their choice of chocolate to buy. After that the participants indicated in different scales their purchase intentions and the motivations which can possibly predict them. By indicating their personal purchase intentions and motivations, the participants also indicate a type of commitment towards organic chocolate or organic foods. Therefore it might have been wiser if the question, which required their choice of chocolate to buy was asked at the end of the questionnaires, which represented the Commitment and consistency condition.

Furthermore, not only Actual and Indicated choice were not influenced by commitment and consistency. The preliminary data analyses showed that none of the dependent variables or scales were influenced and none of the motivations were predicted by the principle. Therefore it cannot be stated that only the order of the questions in the questionnaires is the reason of the failure of the second hypothesis. A further investigation is needed in order to discover whether commitment and consistency can be used in other marketing campaigns with the goal of increasing purchase and consumption intentions.

Moreover, the analyses did not show any influencing effects of social proof and commitment and consistency on the actual behavior of the participants, which they expressed by choosing one of the two types of chocolates as a reward. Thus, it cannot be explicitly stated that in a real setting participants can be influenced through social proof. Even though there was a statistically significant evidence that there is an effect of social proof on the Indicated choice of chocolate,

when participants need to buy a chocolate for real, they might not chose organic over of conventional.

#### Future research

Future research is needed in order to find out whether the influencing principles can change the consumers' purchasing behavior in a long term aspect. We have shown so far that social proof can influence the consumer's choice, right after the manipulation itself in a lab experiment. But there is still a possibility that this effect lasts only during the particular case. It would be useful for the marketers to know whether the effect of social proof remains in a long term aspect, so they can use it as a valuable tool in order to increase sales of certain products.

Even though in the present study no significant effect of commitment and consistency was found, it might be useful to investigate how long an establishment of commitment towards certain product takes. Even though in the present study commitment and consistency showed no effect, perhaps there is another way of establishing commitment in short term either alone or in combination with other principles for a marketing purposes.

In addition, it was shown by the previous researchers that once a commitment is made, it is easy to evoke a consistency (Cialdini, 2007). Therefore, it can be investigated whether a slow established commitment can affect the consumers' purchasing and consumption intentions towards organic foods. Moreover it was revealed that if the commitment is made publicly, it should provoke a consistency (Cialdini, 2007). A further research using non- anonymous means of experiment and perhaps a recognized institutions involved could help to further investigate the principle of commitment and consistency in a market settings.

Even though, the single influence of social proof and commitment and consistency were very small or insignificant, it was shown that used together, they can make a difference and change the consumers' behavior. However, it was also shown that the combination of social proof and commitment and consistency gained less organic chocolate purchases than the social proof itself. Therefore, it might not explicitly mean that using two influencing principles at the same time is better than using only one. Nevertheless, it can still be investigated how the different influencing principles can be combined and used in practice (e.g. in a commercials, supermarket promotions, other marketing campaigns).

#### General Conclusion

Even though the full aim of the present study was not completely achieved and no effect of commitment and consistency was found, it can still be claimed that there are ways of influencing the consumers towards certain purchase or consumption behavior. In the present study an example of the effect of the social proof influencing principle on the purchase behavior of Wageningen University students was shown. Moreover the combination of social proof and commitment and consistency also provided significant effect on the participants' purchase and consumption behavior. In addition, the participants of the study indicated that the availability of organic products and their higher prices compared to the conventional

products still exists as an issue and cannot be changed by an influence. Moreover, marketers have limited power regarding this issues. Therefore all stakeholders in the organic agricultural production chain should take their part in discovering a feasible solutions in order to sustain the production, sales and consumption of the organic products.

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## Appendixes

### Appendix 1: Introduction of the questionnaires

Dear participant,

The present study is part of MSc thesis and is based on consumers' perceptions and attitudes towards organic products. Please read the short description of organic food below before you start answering the questions.

Organic food is the food produced by "... a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the share environment and promote fair relationships and a good quality of life for all involved."(IFOAM, 2008, p.1)

Moreover, according to the United States Department of Agriculture the organic food is produced under a strict governance and certification control. Organic food is free of genetic modification. The products do not contain any toxic chemicals, therefore they are better for people, better for soils and better for water. Organic products are not only harmonious with nature, they also increase consumers' choices and protect family farms and rural communities. Organic animal products are produced with care for the animal welfare.

The study that you are participating in will focus on organic products. We will ask you multiple questions concerning organic products. There are no right or wrong answers to these questions. We are only interested in your personal opinion. Since the participation is voluntary, you can stop with the questionnaire at any point in time.

Your answers will remain anonymous and completely confidential and will be used only for the purposes of the present MSc thesis.

Thank you!

Yuliana Dragieva

Appendix 2: Questionnaire, representing the Neutral condition

1. Imagine the following: You are on your way to the local supermarket to do some grocery shopping. One of the things you need is chocolate. The supermarket has an assortment of four types of chocolate. Which one would you buy? (To see the assortment, please, turn to the final page!)
  1. Verkade milk chocolate
  2. Vivani Organic Milk Chocolate
  3. Albert Heijn Organic milk chocolate
  4. Fine Milk Chocolate

Please read carefully each of the following questions and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is “Not at all likely” and 7 is “Very likely”.

2. How likely is that you would buy chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
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3. How likely is it that you would buy organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
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4. How likely is it that you would eat organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

5. How likely is that you would recommend consuming organic chocolate to your friends?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

6. How likely is that you would buy at least one organic product every time you do your groceries?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

7. How likely is that you would buy more often organic foods in the near future?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

8. How likely is that you would buy less often organic foods in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
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Please read carefully each of the following statements and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is “I completely disagree” and 7 is “I completely agree”.

9. I would buy more organic foods if the local supermarket has a richer organic foods assortment and availability?

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

10. I think that organic foods are expensive.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

11. I would buy organic foods because they taste better than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

12. I would buy organic foods because they are of better quality than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

13. I would buy organic foods because they are more environmentally friendly than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

14. I would buy organic foods because they are healthier than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

15. Normally I am buying my foods from: (Please, encircle the number of answer that best fits your situation.)

1. Nearest supermarket
2. Special supermarkets
3. Farmers markets
4. Other .....

16. My Age .....

17. I am a female / male (encircle best fitting answer)

Thank you for your participation!

Appendix 3: Questionnaire, representing the Social proof condition

1. In 2014, IFOAM reported growth of the European organic food market. Therefore many people nowadays buy organic foods. You probably also have people in your direct surroundings who buy organic foods. Could you please enlist 4 (four) people (friends, relatives) that you personally know who buy organic foods? (Please, write down only first names.)
  1. ....
  2. ....
  3. ....
  4. ....
2. Imagine the following: You are on your way to the local supermarket to do some grocery shopping. One of the things you need is chocolate. The supermarket has an assortment of four types of chocolate. Which one would you buy? (To see the assortment, please, turn to the final page!)
  1. Verkade milk chocolate
  2. Vivani Organic Milk Chocolate
  3. Albert Heijn Organic milk chocolate
  4. Fine Milk Chocolate

Please read carefully each of the following questions and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is “Not at all likely” and 7 is “Very likely”.

3. How likely is that you would buy chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

4. How likely is it that you would buy organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

5. How likely is it that you would eat organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

6. How likely is that you would recommend consuming organic chocolate to your friends?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

7. How likely is that you would buy at least one organic product every time you do your groceries?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

8. How likely is that you would buy more often organic foods in the near future?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

9. How likely is that you would buy less often organic foods in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

Please read carefully each of the following statements and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is "I completely disagree" and 7 is "I completely agree".

10. I would buy more organic foods if the local supermarket has a richer organic foods assortment and availability?

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

11. I think that organic foods are expensive.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

12. I would buy organic foods because they taste better than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

13. I would buy organic foods because they are of better quality than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

14. I would buy organic foods because they are more environmentally friendly than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

15. I would buy organic foods because they are healthier than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

16. Normally I am buying my foods from: (Please, encircle the number of answer that best fits your situation.)

- 1. Nearest supermarket
  - 2. Special supermarkets
  - 3. Farmers markets
  - 4. Other .....
17. My Age .....
18. I am a female / male (encircle best fitting answer)

Thank you for your participation!

Appendix 4: Questionnaire, representing the Commitment and consistency condition

- 1. There are a lot of situations in which people buy organic foods. Almost every person has individual reasons in situations to buy organic foods. Could you please describe shortly 4 (four) situations in which you personally would buy organic foods?
  - 1. ....
  - 2. ....
  - 3. ....
  - 4. ....
- 2. Imagine the following: You are on your way to the local supermarket to do some grocery shopping. One of the things you need is chocolate. The supermarket has an assortment of four types of chocolate. Which one would you buy? (To see the assortment, please, turn to the final page!)
  - 1. Verkade milk chocolate
  - 2. Vivani Organic Milk Chocolate
  - 3. Albert Heijn Organic milk chocolate
  - 4. Fine Milk Chocolate

Please read carefully each of the following questions and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is “Not at all likely” and 7 is “Very likely”.

- 3. How likely is that you would buy chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

- 4. How likely is it that you would buy organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

- 5. How likely is it that you would eat organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

- 6. How likely is that you would recommend consuming organic chocolate to your friends?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

7. How likely is that you would buy at least one organic product every time you do your groceries?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

8. How likely is that you would buy more often organic foods in the near future?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

9. How likely is that you would buy less often organic foods in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

Please read carefully each of the following statements and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is "I completely disagree" and 7 is "I completely agree".

10. I would buy more organic foods if the local supermarket has a richer organic foods assortment and availability?

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

11. I think that organic foods are expensive.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

12. I would buy organic foods because they taste better than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

13. I would buy organic foods because they are of better quality than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

14. I would buy organic foods because they are more environmentally friendly than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

15. I would buy organic foods because they are healthier than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

16. Normally I am buying my foods from: (Please, encircle the number of answer that best fits your situation.)

1. Nearest supermarket
2. Special supermarkets
3. Farmers markets
4. Other .....

17. My Age .....

18. I am a female / male (encircle best fitting answer)

Thank you for your participation!

Appendix 5: Questionnaire, representing the Mixed condition

1. In 2014, IFOAM reported growth of the European organic food market. Therefore many people nowadays buy organic foods. You probably also have people in your direct surroundings who buy organic foods. Could you please enlist 4 (four) people (friends, relatives) that you personally know who buy organic foods? (Please, write down only first names.)

1. ....
2. ....
3. ....
4. ....

2. There are a lot of situations in which people buy organic foods. Almost every person has individual reasons in situations to buy organic foods. Could you please describe shortly 4 (four) situations in which you personally would buy organic foods?

1. ....
2. ....
3. ....
4. ....

3. Imagine the following: You are on your way to the local supermarket to do some grocery shopping. One of the things you need is chocolate. The supermarket has an assortment of four types of chocolate. Which one would you buy? (To see the assortment, please, turn to the final page!)

1. Verkade milk chocolate
2. Vivani Organic Milk Chocolate
3. Albert Heijn Organic milk chocolate
4. Fine Milk Chocolate

Please read carefully each of the following questions and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is “Not at all likely” and 7 is “Very likely”.

4. How likely is that you would buy chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

5. How likely is it that you would buy organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

6. How likely is it that you would eat organic chocolate in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

7. How likely is that you would recommend consuming organic chocolate to your friends?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

8. How likely is that you would buy at least one organic product every time you do your groceries?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

9. How likely is that you would buy more often organic foods in the near future?

Not likely at all	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

10. How likely is that you would buy less often organic foods in the near future?

Not at all likely	1	2	3	4	5	6	7	Very likely
-------------------	---	---	---	---	---	---	---	-------------

Please read carefully each of the following statements and encircle the answer that best fits your opinion. The scale ranges from 1 to 7, where 1 is “I completely disagree” and 7 is “I completely agree”.

11. I would buy more organic foods if the local supermarket has a richer organic foods assortment and availability?

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

12. I think that organic foods are expensive.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

13. I would buy organic foods because they taste better than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

14. I would buy organic foods because they are of better quality than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

15. I would buy organic foods because they are more environmentally friendly than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

16. I would buy organic foods because they are healthier than conventional foods.

I completely disagree	1	2	3	4	5	6	7	I completely agree
-----------------------	---	---	---	---	---	---	---	--------------------

17. Normally I am buying my foods from: (Please, encircle the number of answer that best fits your situation.)

- 5. Nearest supermarket
- 6. Special supermarkets
- 7. Farmers markets
- 8. Other .....

18. My Age .....

19. I am a female / male (encircle best fitting answer)

Thank you for your participation!

Appendix 6: List of chocolates

1. Verkade Milk Chocolate



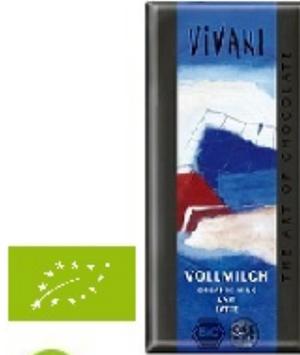
75 gr

**1.04**

100gr

**1.39**

2. Vivani Organic Milk Chocolate



**BIO**

100 gr

**1.67**

3. AH Organic Milk Chocolate



**BIO**

100 gr

**1.19**

4. Fine Milk Chocolate



100 gr

**1.03**

Appendix 7: Factor analyses

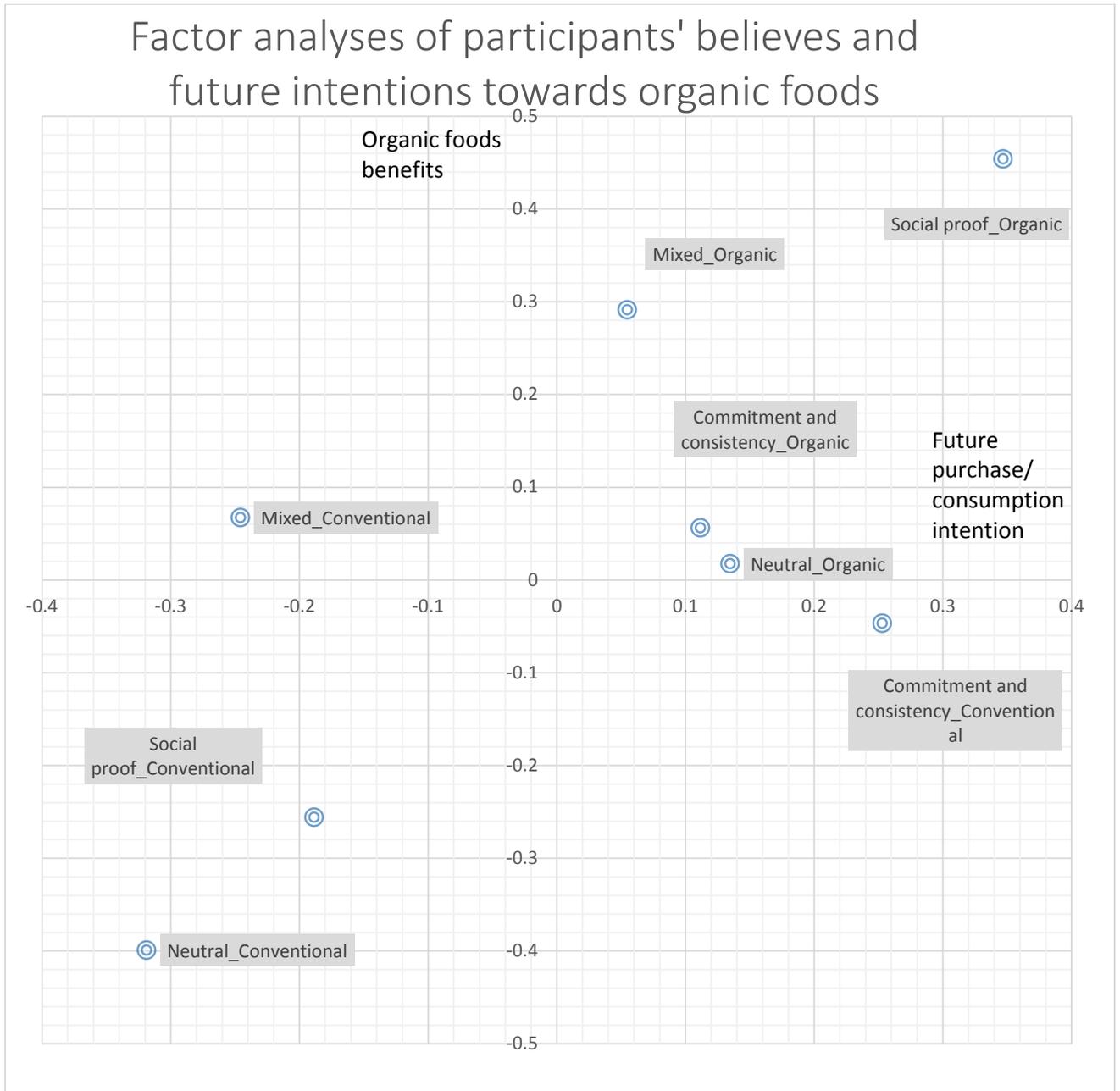


Figure 1 Factor analyses of participants' motivations and future intentions towards organic foods