Stockholm School of Economic
Department of Economics
Master's Thesis in International Economics

DETERMINANTS OF THE DEMAND
FOR ECO-LABELLED MILK
AND FAIR TRADE COFFEE

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Abstract: This thesis examines the determinants of the demand for eco-labelled milk and fair trade coffee with regards to egoistic, altruistic and signalling of altruism motives as well as socio-economic background factors. A survey was conducted in Stockholm city generating 187 completed questionnaires. The results show that the explanatory variables are better suited for explaining the demand for eco-labelled milk than the demand for fair trade coffee. Common for the two food products are the importance of perceived taste, environmental/ethical self-image and gender in determining demand. Results also point to a limited relationship between altruistic factors and demand for ethical food products.

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1. Introduction

During the last twenty years there has been a significant growth of awareness regarding environmental and ethical behaviour in regards to consumption. Businesses and final consumers have had to begin taking responsibility for the impact their production and consumption has on the environment and others wellbeing (Brinkmann 2004).

Recently, the ethical consumption market has grown extensively in the western world; the European countries, USA, Canada and Australia. An increasingly large variety of environmentally friendly and ethical products are continuing to appear in stores worldwide. The consumption of eco-labelled and fair trade labelled products have increased rapidly in Sweden. The eco-labelled products have been on the market for a longer time than the fair trade products, but the yearly sales increase is today higher for fair trade products than for eco-labelled products. Between 2004 and 2005 the sales of eco-labelled[1] food products increased by approximately 40 percent (SCB$_a$) and for fair trade products the estimated growth in retail value between 2004 and 2005 was 69 percent ("Building trust" 2006). The eco-labelled milk (ELM)[2] and the fair trade coffee (FTC)[3] represent the two of largest ethical products consumed in Sweden in their respective category and these will also be studied in this thesis. The Swedish eco-labelling "KRAV"[4] and the international labelling for Fair Trade; in Swedish called "Rättvisemärkt"[5] have been used to identify the two products. These labels were selected on the basis of being the most commonly known labels for ethical products in Sweden. (Rättvisemärkt 2006; Konsumentundersökning om ekologiska produkter/KRAV 1999)

In earlier research, discussions regarding non-economical factors affecting consumption of ethical products have appeared. Taste, health, environmental concern and the desire for social signalling towards others have been introduced as influential factors in consumption decision making. This thesis focuses on three main

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[1] Many classifications are used for eco-labelled products such as "green", organic, ecological etc. These will be treated as synonyms in this thesis
[2] ELM will be used as a abbreviation of eco-labelled milk throughout the thesis
[3] FTC will be used as a abbreviation of fair trade coffee throughout the thesis
[4] The Swedish control organization for ecological production and certification
[5] The Swedish organization for fair trade certification

behaviours; egoism, altruism and signalling of altruism, and their affect on the purchase decision and consumption.

The primary aim of this thesis is to estimate the determinants of the demand for eco-labelled and fair trade products. The analysis will be limited to one product within each category: ELM and FTC. The determinants are divided into four categories: egoistic, altruistic, signalling of altruism and socio-economic background factors. The demand is measured both in terms of the share of ELM and FTC currently consumed and the willingness to pay for ELM and FTC. A secondary aim is to see if there are any major differences between the determinants of the demand for ELM and FTC.

The research was conducted through a market survey and based on the results of the survey regression analyses were carried out in order to establish determinants for ethical consumption. This will be further elaborated on in the following sections of the thesis.

The outline of the thesis is the following: the next section will further present the background to this topic, some of the earlier research that has been made and their results, and finally the research questions. Section three presents the theoretical framework on which the thesis is based. Section four introduces the method that has been used, the difficulties regarding the specific procedure and a presentation of the model used. Section five brings forward the results in the form of descriptive statistics and regression analyses. Finally, in section six there will be a discussion regarding the findings and a conclusion.

2. Background

An existing opinion today is that the global trade situation is unfair. The western world countries are supposedly destroying the chance of the less developed countries to conduct trade according to capitalistic market conditions (Bird and Hughes 1997). An endless number of discussions regarding developing countries, trade barriers and sustainable growth are held worldwide and involve both an environment concern and concern for the welfare of human beings. (FairTrade$_a$; Axelsson Nycander 1999)

The awareness of the surrounding world has increased due to enhanced trade and technology. Individuals worldwide have become increasingly aware of their responsibility as consumers (Bird and Hughes 1997). By purchasing the least expensive product available the consumer encourages non-environmental and unethical production methods that impoverishes the environment and minimizes the revenues for the producer. This occurs when cost minimizing is being the primary goal, rather than the welfare of the environment and the people producing the product. (Gould 2003)

Instead of always purchasing the least expensive product consumers are at present to a larger extent contributing to environmentally healthier production as well as production improving the welfare of people in less developed countries. This is in part expressed through changed consumption patterns with an increased emphasis on ethical products and more pure political boycotts of companies conducting unethical trade/production according to Andersen and Tobiasen (2003).

The general definition of ethical consumerism is "buying things that are produced ethically i.e. without harm to, or exploitation of, humans, animals or nature". Harrison et al. (2005) labels the non-traditional behaviour as *"ethical purchase behaviour"*. It refers to people who choose to buy ethical products because of political, environmental, social or other motives, and also people boycotting a certain product due to unethical production.

This thesis will make a distinction between eco-labelled consumers and fair trade consumers but regard them both as acting according to an ethical state of mind, and

thus in line with Harrison et al. (2005), being ethical consumers. There are other definitions of ethical consumers but these will not used in this thesis.

2.1 Eco-labelled trade

There are several large organic organizations in Europe, for example Organic-Europe, Greentrade.net and ECOCERT International among others working for a more environmentally friendly food production. Within the European Union there has been extensive work put into encouraging the increase of ecological production. However, in Sweden, the European Union labelling is mostly used for imported products. Instead, the most commonly known labelling is the earlier mentioned KRAV which is an all-Swedish label. The four basic criteria for this label are: the preservation of a good environment, good animal care, good health and focus on a general social responsibility. In order for a milk producing farmer to become certified he needs to fulfil certain demands, e.g. ecological feed approved by KRAV, free access to hay for animals and a balance between area and number of animals. (KRAV Ekonomisk förening) The KRAV criteria follow the rules of the European Union label for ecological products. (Faktablad 21-EU 2006)

According to Statistics Sweden the consumption of ELM counts for 7.6 percent of the total turnover of ecological food products in the retail trade in 2004. Between 2004 and 2005 the ecological products within the dairy product category increased in sales from 4.2 percent to 5.3 percent of total dairy sales. (SCB_b) The production of ELM has increased from 47k to 68k tons between 2000 and 2005 (figure 1) and now counts for 6.8 percent of total Swedish milk production.
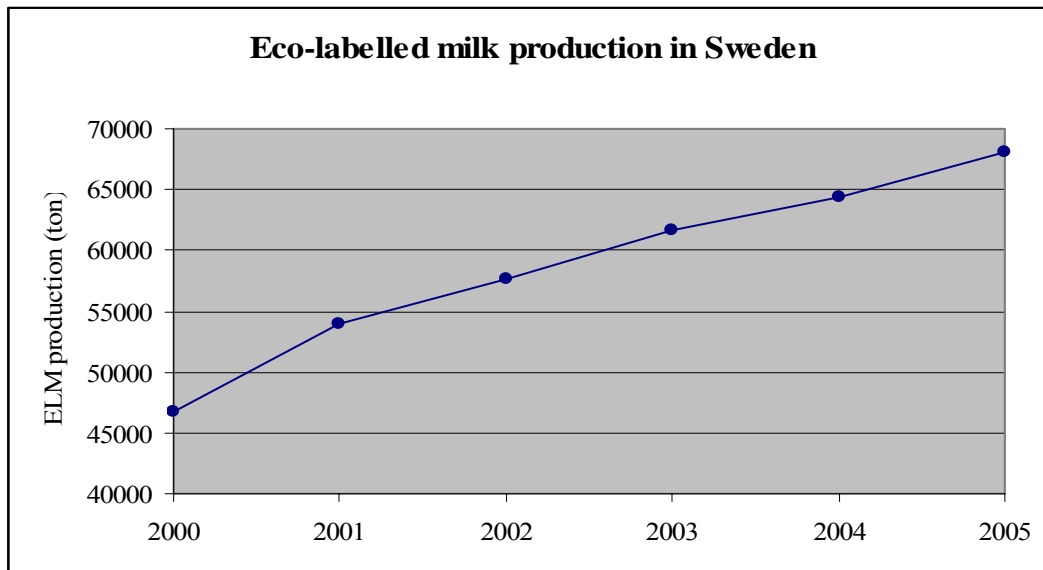
Figure 1: Eco-labelled milk production in Sweden 2000-05 (Source: Svensk Mjölk)

Also, milk is a homogenous product which many people purchase frequently and it has been a part of earlier studies (Magnusson et al. 2001; Hill and Lynchehaun 2002). Therefore this thesis will use ELM with the KRAV labelling as one of two focal points of the survey.

2.2 Fair trade

The Max Havelaar organization was the pioneer in fair trade with operation in the Netherlands as early as 1988. They promoted what came to be known as the first independent fair trade label. Others followed and in 1997 the Fairtrade Labelling Organizations International (FLO) was formed in order to pool certification and marketing of fair trade products among consuming countries (Nicholls and Opal 2005). Later the FLO has become a part of the FINE-association[6] which works for a greater equality within international trade by creating a move towards security and self-sufficiency in countries of the Third World. (Fair Trade in Europe 2005)

In order for a producer to be allowed to label his or her products with the FLO Fair Trade-logotype certain criteria need to be fulfilled. The producer organization has to be built on democratic grounds and there are to be no political, ethical, religious or sexual discrimination, the organization has to be politically independent and provide

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[6] FINE = The informal coordination of the four international fair trade networks; the Fairtrade Labelling Organization (FLO), International Fair Trade Association (IFAT), Network of European Worldshops (NEWS!) and European Fair Trade Association (EFTA)

the workers with the right to join the union. Minimum wages and employment agreements are of high importance, along with maintaining a high product quality. These criteria are based on the UN declaration of human rights and the fundamental International Labour Organization Conventions. (Fair Trade[b]; Nicholls 2002) In Sweden, the fair trade movement is foremost represented by the Fair Trade Organization "*Rättvisemärkt*", which is a sister-organization to the international FLO. There are other labels like *Utz Kapeh* and *Rain Forest Alliance* but the highest proportion of the fair trade market is comprised by products sold under the Rättvisemärkt label. (Fair Trade in Europe 2005)

The availability of fair trade products have increased during the last decade according to a survey commissioned by the FINE-association. ("Building Trust" 2006) The estimated fair trade retail value grew approximately 37 percent between 2004 and 2005 in the 19 most active western countries. In Europe; Finland, Austria and Sweden top the list in terms of the percent of annual growth in fair trade retail sales. The growth rates for these three countries lay between 62-73 percent in estimated retail value. The fair trade sales for coffee increased globally with 40 percent from 24k to 34k tons between 2004 and 2005. ("Building Trust" 2006) The increase in FTC sales is illustrated in the graph below.
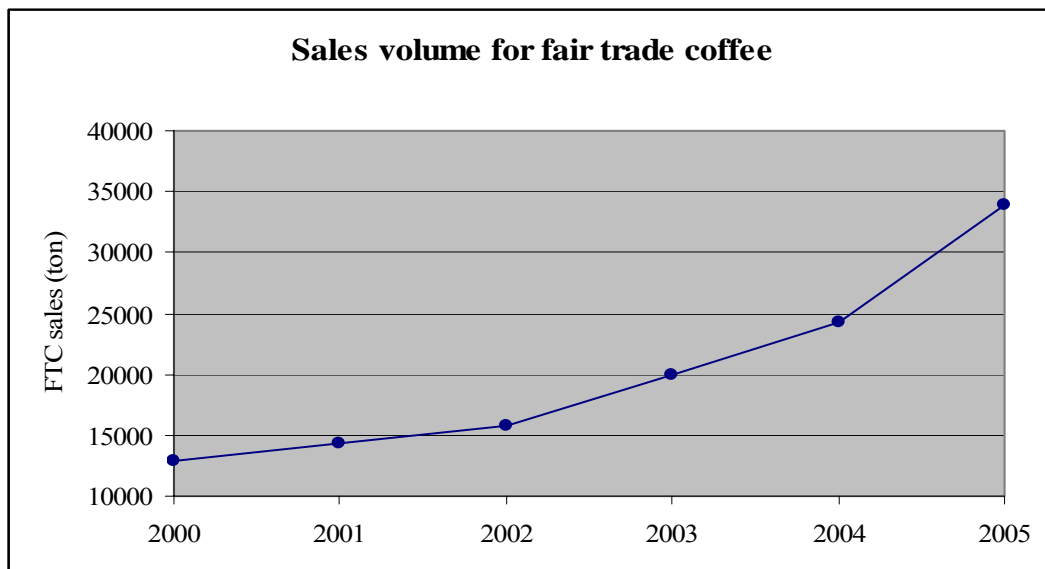

Figure 2: Sales volume of FTC 2000-05[7] (Source: Fair Trade UK)

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[7] Countries: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Great Britain, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Sweden, Switzerland, USA, Mexico, Australia/New Zeeland.

Despite the large increase of the FTC market, it still represents a very small part of the total European coffee market. Coffee alone counts for almost 50 percent of the turnover of all fair trade products that are shipped into Europe but it accounts for just two percent of the total coffee retail market. (Jones et al. 2003)

The FTC market share in Sweden represents less than one percent of total coffee market share but is increasing as in the rest of Europe and it is one of the fair trade products with the highest recognition. (Fair Trade in Europe 2005) The total Swedish coffee import had during 2005 reached a level of 117k tons of raw coffee (SCB$_c$). The fair trade certified coffee that was imported to Sweden during the same year reached about 520 tons, approximately 0.44 percent of the total Swedish coffee imports. (Fair Trade$_a$)

The four large Swedish importers[8] of FTC had a joint turnover of about 2.2 million euros (21 MSEK), for Sackeus AB alone the coffee import counts for 75 percent of its turnover in 2005 (Fair Trade in Europe 2005). Several larger public authorities, coffee and hotel chains have recently changed into serving FTC. Companies within the food product industry are at present introducing products labelled with "Rättvisemärkt", e.g. ICA and COOP and the major coffee-labels[9]. (Fair Trade$_b$) All the above stated factors in this chapter indicate the relative importance of FTC which therefore is the second focal point of the survey.

2.3 Earlier research

Earlier research examining factors behind consumer choice and ethical consumption does not necessarily handle the two products in union. More specific, it does not examine if there are differences in the determinants that affect consumption of ELM and FTC. Attitudes and motivations toward organic food consumption have been studied by Magnusson et al. (2001) and Hill and Lynchehaun (2002). Other research examines the consumption patterns and revealed purchase behaviour of ethical products (Strong 1996, 1997; Arnot et al. 2006; Bird and Hughes 1997). Furthermore, willingness to pay for ethical food products have been studied by de Pelsmacker et al. (2005); Arnot et al. (2006) and Loureiro and Lotade (2005). This part will further on

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[8] Sackeus AB; Rättvis Handel Import AB; La Maison Afrique AB; North & South Fair Trade AB
[9] Nestlé – *Zoéga Hazienda*; Löfberg's Lila – *Vårt Goda*; Arvid Nordqvist – *Classic REKO* etc.

be divided into earlier research of eco-labelled/organic trade and earlier research of fair trade.

2.3.1 Eco-labelled/organic oriented research

In their study Magnusson et al. (2001) report demographic differences regarding Swedish consumers' attitudes and beliefs about organic foods. Their main findings are that only a small proportion of the Swedish population purchase organic food regularly despite the fact that a majority (most women and younger people) actually has a positive attitude towards the concept. The most important purchase criteria for food were; taste, healthiness and quality in that order, the criterion of food being organically produced was of less importance.

In a study of consumer attitudes and motivation towards organic milk, Hill and Lynchehaun (2002) found that the main reasons for buying organic milk were health, better taste and environmental concerns. In contrast to Magnusson et al. (2001), they found that health was the most important factor and that the taste factor was affected by mixed opinions, some of the organic buyers bought milk because they believed that it tasted better (in accordance with Magnusson et al. 2001) while others did not. Hill and Lynchehaun (1996) assume that people might believe taste to be better since they pay more. Magnusson et al. (2001) conclude that the most common beliefs were that organic foods are more expensive but also healthier than conventional[10] foods.

In line with both Hill and Lynchehaun (1996) and Magnusson et al. (2001), Schifferstein and Oude Ophuis (1997) found that buyers of organic food consider themselves as being more responsible for their own health. Wholesomeness, absence of chemicals, environmental friendliness and a better taste were registered as the primary reasons for buying organic products in this study.

Lockie et al. (2002) explores the relationship between environmental and other concerns in the mobilization of people as organic consumers. In their study organic

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[10] Conventional will be used as a synonym to regular throughout the thesis. Both terms are used to distinguish eco-labelled and fair trade labelled products from their non eco-labelled and non fair trade labelled counterparts.

consumers rated health and the natural content of the food as the primary motivational factors in food choices. A secondary motivational factor was price.

According to Magnusson et al. (2001) price appeared to be a major obstacle when purchasing organic food. A majority of the consumers expressed positive attitudes towards organic food and considered it wise to purchase but still did not. The authors supposed this also could be due to a concept of habit. In addition, Wandel and Bugge (1996) show in their results that many people are interested in buying food produced in an organic way but are not willing to pay the higher price. Hill and Lynchehaun (2002) also reached the conclusion that the higher price is the primary reason for not purchasing organic milk. The justification for the higher price was not understood by the non-purchasers and, although the organic buyers understood the higher price level, they also claimed to a high extent that they would buy more if the price was lower. This reasoning differ somewhat from Altman (2006) who claims that individuals typically are willing to pay more for a given product if the quality is perceived to be higher.

In their study of organic products, Fotopoulos and Krystallis (2002) found that the high price was only the second major cause for non-purchases of organic products. The first major cause for non-purchases was awareness, people appear to have low knowledge about organic products. Consumers have contradictory perceptions and there is a lack of educational/communicational activity, that along with low availability and high prices were identified as the major causes of low penetration of organic product. They conclude that three consumer types exist in terms of attitudes towards, purchase intention and awareness of organic products: the "unaware", the "aware non-buyers" and the "(aware) buyers" of organic food products. The major determinant here is claimed to be education, despite the respondents claim of knowing the definition of organic food – they were often highly unaware.

Magnusson et al. (2001) found a difference between people with and without a university degree, those with an education seem to buy organic food more often, they also had a more positive attitude toward organic milk and find it more likely that they will find it on the shelves. People with a high educational level were also more inclined to prioritize environmentally sound production (Wandel and Bugge 1996).

Carrigan and Attalla (2001) on the other hand states that education and sophistication are not necessarily factors leading to sophisticated consumer behaviour that include ethical buying practices. Their conclusion is that even though a consumer is fully informed about the differences between conventional food and ethical food it is not a guarantee that s(he) will choose to act in line with a more ethical behaviour.

Hill and Lynchehaun (2002) states that the organic consumer can be segmented by age, lifestyle, behaviour and internal (taste, nutrition and health) vs. external reasons (environment, seek food that was unadulterated, understand the benefits of the environment, fashion motivation). In their study they present a group of influential factors: *Knowledge factors* (people do not understand the meaning of organic milk), *uncontrollable factors* (food scares have affected people in the purchase decision, people are becoming more concerned about what they eat), *cultural factors* (children are a key component for why people buy food they believe is healthier which has also increased because of food scares), *social factors* (trends towards healthier eating and taking more responsibility for ones own well-being), *personal factors* (attitudes and behaviour shape consumer behaviour; values, life-style), *intrinsic factors* (price, packaging, taste, quality and safety) and *extrinsic factors* (merchandising, advertising etcetera).

In their study Magnusson et al. (2001) found a satisfaction with the availability of organic foods which the authors interpret as uncertainty regarding the true meaning of organic food. Milk was perceived to be the easiest product to recognize as organically produced, maybe because of its identifiable cartons and distinctive package. Hill and Lynchehaun (2002) agree that availability was a factor when purchasing organic milk, but tests also showed that although the organic milk was placed right next to the conventional milk the non-organic buyers did not buy the organic milk – the authors refers to an attitude and a motivation regarding a certain purchase being of relevance here. Consumer motivation and attitude toward organic milk is central and the location of the milk was considered relatively unimportant.

The study by Wandel and Bugge (1996) investigated consumer relationship to environmental aspects of food through an analysis of the characteristics of consumers who: put priority on environmental aspects in their quality valuation of food; are

willing to pay extra for food produced in an environmentally sound manner and buy these products today. Their results showed that women were more likely to prioritize environmental aspects in their quality evaluation of food and that they are more likely to buy these products than men are. The younger participants based their buying behaviour on considerations for the environment and animal welfare, whereas consideration for the own health were more apparent among the older participants. Magnusson et al. (2001) come to similar conclusions arguing that women and young people between the ages of 18-25 reported positive attitudes toward organic food but although evidence of existing positive attitudes, the purchase frequency was still low.

2.3.2 Fair trade oriented research

There are several similarities in the results from ecological and fair trade research. For example, taste and price are common important factors for purchases of both types of products. The study by de Pelsmacker et al. (2005) investigated to what extent Belgian consumers are willing to pay for the fair trade attribute when buying coffee and how consumers differ in terms of willingness to pay. They found that consumers might value the ethical attribute but are not willing to pay an extra premium for this. The results showed that the product brand was the foremost important attribute, flavour/taste was the second and the fair trade attribute came as third. Approximately 10 percent of the respondents stated that they were willing to pay the 27 percent premium for a fair trade label on coffee, but as stated by Magnusson et al. (2001) a positive attitude is not the same as an actual purchase. The reason for health not being one of the important factors could be due to consumers not considering coffee to be a product with health qualities (Loureiro and Lotade 2005).

In their study, Arnot et al. (2006) explored consumers' *revealed* purchasing behaviour with regard to FTC in a real market setting, which distinguishes their research from others. They examined the consumer responsiveness to relative price changes in FTC and non-fair trade coffee. They found that consumers who bought FTC were much less sensitive to changes in price in relation to consumers of other coffee products. The consumers buying FTC are therefore assumed to base their purchase decision on other attributes than price. Strong (1996) found that consumers of fair trade products purchased them since they believed them to be of higher quality than other products.

Bird and Hughes (1997) explores fair trade as a sub-set of ethical consumerism and also use coffee as an indicative commodity. The willingness to purchase goods based on ethical attributes is limited to a minority of consumers, in accordance with the findings of de Pelsmacker et al. (2005). The authors divided the consumers into three types of consumers: ethical consumers, semi-ethical consumers and selfish consumers. The ethical consumers are primarily motivated by moral values, they are willing to make trade offs between traditional product benefits and ethical characteristics of products and, are also willing to pay a premium for the ethical product. The semi-ethical consumers are primarily motivated by brand "status" and perceived quality, and if they buy an ethical product because of its performance, the ethical emotional benefit is a bonus. The selfish consumer is only interested in conventional quality and brands, and s(he) is price motivated. The consumers most willing to pay a premium were women and people under the age of 35.

Ozcaglar-Toulouse et al. (2006) examined consumer intention to purchase fair trade grocery products, in order to explain the relevant decision-making criteria for both consumers and potential consumers in France. Their results reveal two distinct groups of ethical consumers based on their frequency of buying fair trade products; those who never or rarely bought and those who bought fair trade products regularly. For the group that never/rarely bought fair trade products, the subjective norm (the own perception of what others believe the person should do) and the ethical obligation were significant in explaining behavioural intention. Peers and social groups appear to have high influence on the purchase behaviour of these consumers and feeling connected to a "movement" of similarly concerned consumers has been found to be an important motivator among ethical consumers. Decision making in this context is more connected to emotions (like Bird and Hughes (1997) states) and reflections than rational economic approaches. For the second group, consumers buying ethical products on a regular basis, the key drivers to behavioural intention were: attitude, perceived behavioural control and self-identity. They have established an attitude toward fair trade that goes beyond their purchasing decision being influenced by significant others.

In their study, Loureiro and Lotade (2005) explore the consumer response towards FTC labelling in relation to organic coffee labelling and to analyze the magnitude of the socio-economic factors affecting consumers' willingness to pay for the different labelling. Their results show that consumers are willing to pay a higher premium for the FTC label than for the organic coffee label. They further state that these results could be due to altruism towards others playing a larger role than environmental concerns in purchase decisions regarding coffee. Their study also showed that female respondents with higher income and higher sensitivity toward environmental issues are more likely to pay a premium for FTC. This is in accordance with the Arnot et al. (2006) study where women seemed slightly more inclined to buy FTC than men. Older consumers are less likely to be willing to pay the premium. Loureiro and Lotade (2005) also show that higher levels of education have a significant positive effect on fair trade consumption. They expected more altruistic individuals to be more likely to support the studied object but the results showed no evidence of this assumption being true. The reason for this might be that people overstated their concerns regarding welfare conditions of people in other countries, in line with the findings of Loureiro and Lotade (2005), who also claim that overstated altruism might be due to a social desirability bias on behalf of the respondents.

3. Theory

The foundation of this thesis is not a specific economic theory but rather a theoretical framework based on the categories of determinants stated in the purpose: egoistic, altruistic, signalling of altruism and socio-economic background factors. These four categories will be presented separately in the following section.

3.1 The egoistic factor

According to rational economic theory individuals are assumed to act according to the utopia of selfishness - homo economicus (economic man). This theory states that people are rational and act in order to obtain the highest individual utility possible according to given information about preferences, opportunities and other known constraints (Gowdy 2004).

The egoistic factor in this thesis is primarily focusing on the individual pay-off which is maximized through monetary and other egoistic preferential factors like taste (Becker 1998). Utility is gained by purchasing the best (subjective preference) product or service at the lowest cost possible and when buying milk or coffee the egoistic actor will choose according to the individual preference of cost and taste. Another influential factor for this actor is health. Eating healthy and thereby ensuring a healthy life will provide him/ her with personal utility, e.g. by avoiding certain food that is considered unhealthy and instead chose ethical products the individual might believe that the personal health will improve. The care for ones health is assumed to provide large personal benefits (Becker 1998). The framework regarding this actor is therefore the following; the primary reasons for the typical egoistic consumer to buy ethical products in form of ELM or FTC are if these products taste better, are perceived as healthier or come with a better price.

Adam Smith (1970) stated that the society was better off when each individual were left to pursue his or her own selfish interests since the private benefits would serve the public good by being re-invested into the economy through spending. The actions of people as if led by an "invisible hand" would shape the best society possible if the market was left to govern itself. This is still the opinion of anti-ethical trade

movements that proclaim free trade and markets without price floors. Therefore, another theory for the seemingly egoistic consumer not to buy ethical products is that s(he) agrees with the idea of free markets without distortions, but this will not be further developed here. (Lindsey 2004)

3.2 The altruistic factor

Altman (2006) argues that economic agents are not at all rational but more quasi-rational which indicates that the individual utility maximizing behaviour is incorrect. Similarly, Gowdy (2004) states that traditional theory cannot capture the complexities of human preferences and therefore provides a distorted picture of peoples' behaviour. The basic assumption that humans only make their decisions based upon selfish cost, taste and health preferences as a way of maximizing utility is an unrealistic one. In a study by Henrich et al. (2001) respondents cared about fairness and reciprocity, not just their own material benefit. The same respondents also showed a willingness to change the material distribution at a personal cost, which is not coherent with the canonical model of economic man. Within different fields of science researchers have acknowledged that values other than the monetary pay-off and the pure self-interest underlie the human consumption behaviour. (Sen 1994; Frank 1987; Dowell et al. 1998)

Dowell et al. (1998) presents a theory declaring that humans have a higher level of utility when behaving according to moral norms. If immoral behaviour produces guilt it will lower the experienced individual utility, and therefore a morally correct behaviour will produce a higher level of utility. The moral economic man maximizes utility by acting according to individual moral norms.

The altruistic factor in this thesis' theoretical framework represents the individual's environmental concern and the morality that is included in the purchase behaviour. An individual that consumes with respect to the environment or the welfare of other people without ulterior motives is acting according to the economic theory of altruism. One could argue that the environment to some extent ought to be seen as semi-egoistic due to a person's self-interest in his or her own environment, but in this thesis the environment concern is regarded as an altruistic motive since the effect of

an individual purchase decision is negligible. Hirshleifer (1985) In this thesis, altruism can be referred to the concern for environment, people with whom one has no personal relationship and also for animal welfare. This could be compared to the previously stated theory of individuals having a higher utility when acting according to morally correct behaviour (Dowell et al. 1998).

3.3 The signalling factor

Several parts of economic and behavioural research bring forward the concept of signalling and the need for people to present a certain image of themselves towards others as well as themselves. In this thesis the signalling of altruism concerns social desirability and self-image.

3.3.1 Social desirability: signalling towards others

Signalling can be a form of prestigious act that is performed in order to present certain image of oneself towards others. The signalling theory combines symbolic communication and social benefit with materialist theories of individual strategic action (Bliege Bird and Smith 2005). The individual is regarded as a strategic decision-maker that engages in seemingly irrational behaviour in order to benefit socially. By acting in accordance with what seems to be altruistic behaviour an individual can gain benefit in terms of symbolic capital or prestige, and also maintain different social relationships. The theory of symbolic capital emphasises the social benefits that successful individuals obtain as a result of their generosity, the most generous or self-sacrificial individual gain prestige. (Bliege Bird and Smith 2005)

Becker (1996) means that both men and women seek respect, recognition, prestige, acceptance and power as a part of the human nature and this they seek from their family, friends, peers and others. He states that consumption is a major social factor since it takes place in public and is for everyone to view. Therefore restaurant visits, books, schools, food, leisure activities are chosen with an eye to please important others.

Benabou and Tirole (2006) look into motives for engaging in activities that are costly for the individual and which mainly benefit others. They argue that such altruistic

behaviour is a result of a broad set of motives that shape people's social conduct. It is argued that individuals in part perform good deeds due to social pressure and norms. They find evidence of social desirability being an important motive for altruistic behaviour using as an example the fact that less than one percent of total donations to charity are anonymous. This is in accordance with Glazer and Konrad (1996) who also states that individuals who donate money to charity in order to signal income level will not make the donation anonymous.

3.3.2 Self- image: Signalling towards oneself

As much as people care about the opinion others have of them, they also care about their *self-image*. According to Adam Smith (1759), people make their moral decisions by assessing their own behaviour through an "impartial spectator". In a more recent work Benabou and Tirole (2006) states that:

> "[…] psychologists and sociologists describe people's behaviour as being influenced by a strong need to maintain conformity between one's actions, or even feelings, and certain values, long-term goals or identities they seek to uphold". (p.1653)

Recent studies confirm such need to uphold a certain self-image. In a survey concerning car preferences, Johansson-Stenman and Martinsson (2006) found that people systematically put environmental performance as the most important attribute and social status near the bottom. However, when asked about the preferences of their neighbours and colleagues, they gave dramatically reversed rankings stating social status as very important.

According to Shaw and Shiu (2001) individuals have internalised ethical rules that reflects their perception of what is right or wrong, there is a feeling of ethical obligation that to some extent affects individual behaviour. The measure of self-identity was found to be of relevance, if an issue becomes important to an individuals self-identity then the behavioural intention is adjusted according to this issue. For ethical consumers, making ethical consumption decisions have become an important part of their self-identity. They purchase ethical products (eco-labelled or fair trade labelled) in order to live up to their own self-identity. Shaw et al. (2000) found that consumers acting in an egoistic manner might choose their coffee in accordance with

taste or price while the ethically concerned consumer instead is guided by an ethical obligation to others and a self-identification with ethical issues.

A purchase could be made for the sole purpose that the individual recognizes it as morally correct behaviour (Richter and Buttery 2002) in accordance with the moral principles of a society with which s(he) wants to act accordingly in order to fit in and be viewed as a "good human being". Although egoism is a stated fact in societies this behaviour is interrupted by a variety of cultural checks and balances i.e. the behaviour is affected by different moral issues with different cultures (Gowdy 2002).

3.4 Socio-economic background factors

The socio-economic background factors included in this framework are; gender, age, income and education. This part of the framework will to a large extent be based on earlier research due to limited amount of theory handling the effect of these variables. Evidence shows that socio-economic factors have an impact on attitudes towards ELM and FTC. Depending on basic factors such as gender and age, level of income and education an individual has different demands. Previous research has shown women are more inclined to buy ethical products than men (Magnusson et al. 2001). Women are also more empathic than men and they show more altruistic values (Smith 2006). Furthermore, de Pelsmacker et al. (2005) states that "fair trade lovers" are more likely to be women.

Wandel and Bugge (1996) found that different age groups based their buying behaviour on different important factors and younger consumers shown to have more positive attitudes toward ethical consumption. Level of income has shown to have some impact on demand in earlier studies. High income earners tend to show a higher demand for ethical products than do low income earners, according to Lockie et al. (2002) the number of people consuming organic food increase with income. Wandel and Bugge (1996) also stated education and gender to be of relevance for attitudes. Education has also been proven to influence demand by de Pelsmacker et al. (2005) and Magnusson et al. (2001). People with a higher educational level have shown to be more inclined to become ethical consumers.

4. Method

4.1 Selection and Implementation

The survey method is based on a standardised questionnaire[11] that was handed out to respondents in the Stockholm area. The respondents were asked a number of questions focusing on behaviour, attitudes and motivation toward consumption of ELM and FTC. The questionnaire had mainly fixed response-alternative questions that require the respondents to choose from a stated number of alternative answers. The questionnaire had a few questions that provided the opportunity for the respondent to state the amount purchased. The structured questions were chosen since it simplified data collection and interpretation by providing equivalent forms of answers. By using a questionnaire the respondent has the opportunity to be relatively anonymous which could facilitate the possibility to reach a larger number of respondents. (Malhotra 1996)

The respondents were selected through a convenient sampling, due to limited time and resources. The original plan was to interview people coming out of super markets and other types of stores selling food products. However, due to several respondents referring to limited amount of time, the location for data collection had to be changed in order to complete the survey within a reasonable timeframe. The respondents are mainly: City and Royal library visitors, customers in stores with ethical and organic emphasis, and students at SSE, all within the Stockholm area. The aim was to gather data from a somewhat diverse population representing both ethical and non-ethical consumers. Respondents were selected through a subjective selection process. The data was collected between the 20th of December 2006 and 31st of January 2007, during different times of the day, weekdays and weekends.

4.1.1 Respondents

A total of 187 respondents completed the questionnaire with a fairly equal gender distribution. The table below shows the bias towards younger people in the sample; particularly people between the age of 21 and 30 years old. The distribution of

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[11] See Appendix 2

respondents in levels of income shows that 79 percent of the respondents have a monthly income of 30000 SEK or less and 80 percent have studied at the university[12].

Gender	(percent)	Income (SEK/month)	(percent)
Men	44	0-20000	69
Women	56	20000-30000	20
Age (years)		30000-40000	7
0-20	13	40000-50000	3
21-30	38	50000-	2
31-40	15		
41-50	14	Education	
51-60	12	Elementary school	0,5
61-70	6	High school	19
71-	2	University	80

Table 1: Socio-economic background data

Due to the selected method for data collection, a sample representing the general public was not likely to be obtained. This was of course expected as it was imperative to receive enough respondents consuming ELM and FTC while time and recourses for a large random sample were absent. It is obvious that the sample consist of younger people than a general sample. 51 percent are under 30 years of age (30 percent in the general population (SCB_d)). The age distribution is thus tilted towards younger people but it is not very different from recent similar studies concerning ethical behaviour e.g. Ozcaglar-Toulouse (2006). Another major divergence from a general sample is the amount of people with university studies, 80 percent (30 percent in the general population, 16-74 years (SCB_e)). The skewed distribution of respondents towards younger and more educated people will most likely cause level of consumption and willingness to pay for ELM and FTC to be high in our sample. However, it is difficult to say how the socio-economic distribution of respondents will affect the motives for consumption and willingness to pay.

4.2 Study design

On the cover page of the questionnaire the two different logotypes of "KRAV" and "Fair Trade" was included along with brief information of the two labels. This was made in order to make it easier for respondents to distinguish the two labels from each

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[12] The criterion was any type of university studies regardless of time. The high share of respondents with the highest level of education should be viewed in light of this fact.

other. The questionnaire was divided into four parts: beliefs and willingness to pay for ELM, beliefs and willingness to pay for FTC, desirability of an environmental/ethical appearance and socio-economic background factors. The belief questions regarding ELM and FTC all had a five point comparative scaling. The questions were supposed to capture respondents' beliefs about certain characteristics of the two products in relation to their conventional counterparts. For example, respondents were asked "How healthy do you think ELM is compared to regular milk?" with the possible answers being: much unhealthier, somewhat unhealthier, equally healthy, somewhat healthier and much healthier. Furthermore, respondents were asked to state how consumption of ELM and FTC would be viewed among their important others. In addition to these questions, respondents were asked to rank the most important motives for consumption of milk and coffee.

Respondents were also asked to estimate the share of ELM and FTC they would consume at assumed different price levels, i.e. their willingness to pay for ELM and FTC. The price levels were stated in relation to their conventional counterparts. For example, respondents were asked how much FTC they would buy if one package of FTC cost 15 SEK more than one package of regular coffee. The amount was stated as share of total coffee consumption, i.e. 0-100 percent. Five different price levels were used for ELM and FTC, with the highest price difference being 10 SEK for ELM and 50 SEK for FTC.

Respondents were then asked to state how important it is to show others and themselves that they are environmental/ethical consumers. For example, they were asked "How important is it for you to appear as an environmental consumer towards others?" with the possible answers being: very unimportant, fairly unimportant, neither or, fairly important and very important. In this part of the questionnaire questions regarding donations to charity and memberships in non-profit organizations were added.

Finally, respondents were asked to answer questions regarding socio-economic background factors; gender, age, income and education.

4.3 Validity

When designing the questionnaire no explicit questions were included in order to determine whether the respondent consumed milk or coffee at all. This was a mistake, especially in regards to coffee, since a number of people indicated on the questionnaire that they did not consume coffee at all. Those respondents were thus excluded from the regressions but a few respondents who did not indicate that they did not consume coffee might be included in the regressions regarding FTC. A filtering question should have been added in order to more accurately filter non-consumers of milk and coffee.

Respondents seemed to interpret the ranking question regarding purchase motives differently. Some respondents ranked the motives one, two, three, four and five in relation to other motives with "one" being the most important motive for purchase and "five" being the least important. Others used the "one to five" scale to grade each motive separate from the other motives, possibly resulting in several "one"-grades or a number of "five"-grades. The validity of the answers received was not considered to be satisfactory and were thus excluded.

In the questions regarding attitudes of family and close friends towards ELM and FTC respondents are likely to have similar preferences as their family and close friends due to e.g. genetics and/or social contexts. It is thus hard to say whether a possible positive relationship between respondents' consumption and the attitudes of their important others is a result of respondents' desire for social recognition or simply similar preferences between the two.

It is hard to say how respondents were affected by the brief information about the "KRAV" and "Fair Trade"-labels on the cover page of the questionnaire. The information was based on the stated restrictions of the two organizations which are overall positive towards the two labels. Excluding this information could have mitigated the possible positive bias but was considered necessary to distinguish the two labels from each other.

In regards to respondents' estimated willingness to pay for ELM and FTC, it should be noted that an overestimation effect due to "hypothetical bias" is likely to be

evident. Loomis et al. (1996) point out that hypothetically stated willingness to pay are typically higher than actual willingness to pay in the open-ended question format. Furthermore, a type of hypothetical bias in the form of "yea-saying" could be present as a result of the matrix format of these questions. For example, O'Conor et al. (1999) states that the dichotomous choice format (yes or no) results in higher estimated willingness to pay values than the open-ended question format. In the present survey respondents may anchor their willingness to pay responses to their previous answers. The trade-off in this respect was thus to receive more accurate willingness to pay estimates and to receive more data from each respondent. Given the limited time and resources at hand, a decision was made in favour of more data.

Other factors that might cause inflated values for some of the questions are factors related to social desirability. Respondents might have a tendency to try to impress the person handing out the questionnaire by providing answers that are socially more acceptable than the true answer, especially regarding personal behaviour (Malhotra 1996). This could be a factor in the present survey as consumption of ELM and FTC could be viewed by some respondents as "better", making larger consumption of these products seem more socially desirable. Of course, this effect would be much larger in a face-to-face interviewer-respondent situation and is not expected to be of major importance for this study. Social desirability factors might also be of importance when answering questions about how important it is for respondents to appear as environmental/ethical towards others where underestimation might occur as well as an overestimation of donations to charity. Similar effects might be present in regards to questions about attitudes of important others, were respondents may evaluate who their close friends are through an "ethical veil" and overestimate relationships to people with an ethical consumer mindset.

4.4 Model

Demand for ELM and FTC is measured through share and willingness to pay for the two products. The reason for using both share and willingness to pay as indications of demand was that availability and awareness of ethical products could be limited among consumers. A lower share of ethical products could be a result of such factors. By adding willingness to pay as a measure of demand external circumstances such as

availability and awareness among consumers could be mitigated as respondents would rather state what they would be willing to pay for ELM and FTC. The dependent variables in the model were thus *share_eco,* indicating share of ELM as a percentage of total milk consumption and *share_fair* indicating share of FTC as a percentage of total coffee consumption. The reason for using the share and not total consumption as dependent variables was that this measurement would capture relative importance of ELM and FTC to their conventional counterparts, giving equal weight to large and small consumers of milk and coffee. Furthermore, *wtp_eco* and *wtp_fair* were used as dependent variables. These variables indicate willingness to pay for one litre ELM and one package (0,5kg) of FTC which were deducted from the answers regarding consumption of ELM and FTC at different assumed price levels. It was assumed that people would not be willing to consume ELM if it cost more than 10 SEK more than regular milk. It was similarly assumed that people would not be willing to consume FTC if it cost more than 50 SEK more than regular coffee. The willingness to pay was then calculated from the area underneath the demand curves created from the stated consumption at different price levels for the two products.[13]

The explanatory variables used when looking at share of consumption and willingness to pay for ELM as well as FTC is divided into four different categories: *egoistic, altruistic, signalling of altruism* and *socio-economic background* variables.

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[13] See figure 4 and 5 in section 5

Dependent variables	Definition
share_eco	ELM consumption as a share of total milk consumption (0-100percent)
wtp_eco	Willingness to pay extra for ELM compared to regular milk (SEK)
share_fair	FTC consumption as a share of total coffee consumption (0-100 percent)
wtp_fair	Willingness to pay extra for FTC compared to regular coffee (SEK)
Explanatory variables	
Egoistic	
health_eco	Perceived healthiness of ELM compared with regular milk (-2-+2)
taste_eco	Perceived taste of ELM compared with regular milk (-2-+2)
health_fair	Perceived healthiness of FTC compared with regular coffee (-2-+2)
taste_fair	Perceived taste of FTC compared with regular coffee (-2-+2)
Altruistic	
environment_eco	Perceived environmental effects of ELM compared to regular milk (-2-+2)
animalcare_eco	Perceived animal care of ELM compared to regular milk (-2-+2)
environment_fair	Perceived environmental effects of FTC compared to regular coffee (-2-+2)
workconditions_fair	Perceived work conditions for FTC compared to regular coffee (-2-+2)
charity	Donation to charity (0-4)
humanrightsorg	Membership in human rights organization (0,1)
environmentalorg	Membership in environmental organization (0,1)
Signalling of altruism	
importantothers_eco	Beliefs about family/close friends' attitudes towards ELM consumption (-2-+2)
importantothers_fair	Beliefs about family/close friends' attitudes towards FTC consumption (-2-+2)
environmentalconsumer_self	Importance of appearing as an environmental consumer towards oneself (-2-+2)
environmentalconsumer_others	Importance of appearing as an environmental consumer towards others (-2-+2)
ethicalconsumer_self	Importance of appearing as an ethical consumer towards oneself (-2-+2)
ethicalconsumer_others	Importance of appearing as an ethical consumer towards others (-2-+2)
Socio-economic background	
gender	Gender (0,1)
age	Age (0-7)
income	Income (0-6)
education	Education (0-3)

Table 2: Definition of regression variables

4.4.1 Egoistic variables

The *egoistic* variables used are those that are expected to impact the likeliness of purchase even if the person was alone in the world, i.e. direct impact of the benefit a person will receive from consuming the product. Previous studies have shown that health is an important factor when buying organic food (Hill and Lynchehaun 2002; Schifferstein and Oude Ophuis 1998; Tregear et al. 1994) Other studies have shown that taste is the most important food purchase criterion (Magnusson et al. 2001;

Wandel and Bugge 1997). The variables used in this category were thus health[14] and taste, coded *health_eco* and *taste_eco* for ELM and *health_fair* and *taste_fair* for FTC. The variables have a five point bipolar scale ranging from -2 to +2 which indicates respondents' belief about taste and health for ELM and FTC in relation to their conventional counterparts. For example, the value -2 for *health_eco* indicates that the respondent thinks ELM is much less healthy compared to regular milk. A zero value indicates that the respondent believes there is no difference in healthiness between ELM and regular milk. And finally, a value of +2 indicates that ELM is perceived as being much healthier than regular milk. The equivalent interpretation can be used for the remaining three variables in this category. We expected all variables to be positively correlated to share and willingness-to-pay for ELM and FTC.

4.4.2 Altruistic variables

The *altruistic* variables used are supposed to capture motives for purchases that can not be traced back to direct personal benefit but rather; benefits to the environment, other people and animals. In this category variables not directly related to ethical purchases but rather signs of altruistic behaviour in general were also added. Environmental concerns have previously been deemed as important motives for organic purchases (Hill and Lynchehaun 2002; Schifferstein and Oude Ophuis 1998). The relationship between environmental concern and fair trade has been pointed out by several authors e.g. Strong (1996). In this study, animal care in the production of ELM and workers' condition in the production of FTC were added as possible altruistic purchase motives for the respective products. The variables selected in this category were thus coded *environment_eco, environment_fair, animalcare_eco* and *workcondition_fair*. These variables all have a -2 to +2 scale ranging and are all expected to be positively correlated to share and willingness to pay for ELM and FTC. In addition to the bipolar altruistic variables discussed above three variables related to general altruistic behaviour were added. These variables indicate the amount of money donated to charity by the respondent within the last year and also whether the respondent is member of an environmental organization and/or a human rights organization. The variables were coded *charity* with a unipolar scale ranging

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[14] Health is used in a broad sense and could thus capture quality aspects, pesticides and other health related aspects that come into respondents' minds.

the charity amount from 0 to 4, with 0 implying 0-50 SEK and 4 indicating over 1000 SEK. The other two variables were the dummy variables *environmentalorg* and *humanrightsorg*. As before these variables are expected to be positively correlated to the share of consumption and willingness to pay for ELM as well as FTC.

4.4.3 Signalling of altruism variables

Signalling of altruism variables refer to purchase motives that stem from an indirect benefit to the buyer through the respondent's close friends and family i.e. "important others". If the respondent's important others perceive consumption of ELM and FTC as positive, (s)he is expected to have a higher share and willingness to pay for ELM and FTC. This variable is coded as *importantothers_eco* for ELM and *importantothers_fair* for FTC. Even these variables have the bipolar scale ranging from -2 to +2 with zero implying that the important others are neither positive nor negative towards ELM and FTC. For example, a value of +2 for *importantothers_fair* indicate that the respondent believes that consumption of FTC will be perceived as very positive among his/her important others.

Other possible purchase motives used to capture a signalling of altruism factor of consumption of ELM and FTC is how important it is for a respondent to be viewed as an environmental/ethical consumer in the view of others (signalling to others) as well as in the respondent's own mind (self-image). For example, Shaw and Shiu (2002a) state that ethical consumption can be related to their ethical self-identity and Bird and Hughes (1997) mention the "feel good factor" in ethical consumption. The variables were coded *environmentalconsumer_others* and *environmentalconsumer_self* for ELM and *ethicalconsumer_others* and *ethicalconsumer_self* for FTC. The reason for this separation is that environmental concerns are believed to be closer related to ELM whereas ethical concerns are assumed to be closer related to FTC. A similar scale is used ranging from -2 to +2. All variables related to signalling of altruism are expected to be positively correlated to share and willingness to pay for ELM and FTC.

4.4.4 Socio-economic background variables

The final category of variables is the *socio-economic background* variables coded *gender*, *age*, *income* and *education*, common to both ELM and FTC. The selection of these variables are based on previous research showing that women, younger people, people with higher education are all expected to have a more positive attitude towards organic and fair trade food (Wandel and Bugge 1997; de Pelsmacker et al. 2005) Furthermore, the demand for organic food seems to be positively correlated with income (Magnusson et al. 2001). The dummy variable *gender* is coded 0 for women and 1 for men. *Age* has a seven point scale ranging from 0-20 years to 70- years with ten year intervals. *Income* has a five point scale ranging from 0-20000 SEK/month to 50000- SEK/month with 10000 SEK intervals. Finally, *education* has a three point scale ranging from elementary school to university. *Gender* and *age* are expected to have negative values as women and younger people are expected to consume more ELM and FTC. *Income* and *education* are expected to have positive values.

4.4.5 Data analysis

Data were analyzed using the SPSS/PC program. Four regression equations were estimated with dependent variables from the questions about share of total consumption and willingness to pay for ELM and FTC. Correlations between explanatory variables do not indicate multicollinearity[15].

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[15] See Appendix 1

5. Results

5.1 Descriptive statistics

In the survey 74 percent reported that they had bought ELM in the last year. The average share of ELM as a percentage of total milk consumption was 42 percent. A fairly large group of 14 percent indicated that they exclusively bought ELM. At the other end, 39 percent reported that they had bought FTC in the last year. A high number but only about half the group size compared to people who purchased ELM during the same time frame. The average share of FTC as a percentage of total coffee consumption was 17 percent, indicating a large deviation from the market share of FTC in Sweden of about 1 percent. The respondents stating that they only bought FTC accounted for 6 percent. On average people were willing to pay 3.5 SEK/litre extra for ELM and 12 SEK/package for FTC. Furthermore, 35 percent stated membership in a human rights organization and 19 percent were members of an environmental organization. The donation to charity was rather equally distributed among the specified fixed choices with the median value among respondents being a yearly donation of 100-500 SEK.
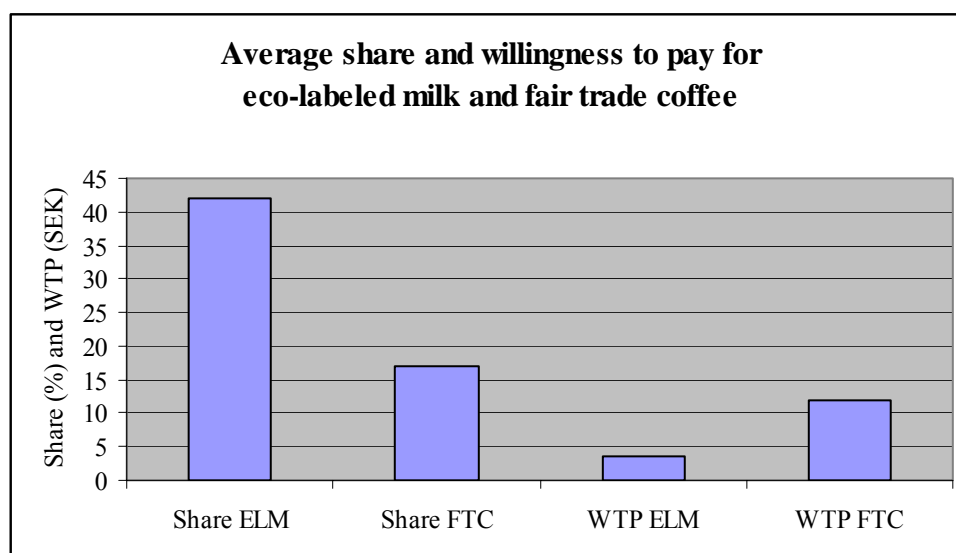

Figure 3: Average share and willingness to pay for ELM and FTC

The following diagram shows the overall descriptive statistics of the variables used in regressions for ELM and FTC. They are ordered in the same way as presented in the model section 4.4, table 2 with the addition of price difference variables. The two products will subsequently be treated separately.

Dependent variables	N	Mean	Std. Deviation
share_eco	185	42,02	41,60
wtp_eco	172	3,49	3,10
share_fair	174	16,85	30,58
wtp_fair	153	12,03	12,54
Explanatory variables			
Egoistic			
health_eco	183	0,78	0,64
taste_eco	184	0,21	0,61
health_fair	179	0,39	0,58
taste_fair	177	0,12	0,72
Altruistic			
environment_eco	185	1,23	0,65
animalcare_eco	185	1,20	0,62
environment_fair	180	0,95	0,71
workcondition_fair	180	1,44	0,64
charity	184	1,79	1,43
humanrightsorg	185	0,35	0,48
environmentalorg	185	0,19	0,40
Signalling of altruism			
importantothers_eco	185	1,08	0,81
importantothers_fair	180	0,96	0,84
environmentalconsumer_others	183	0,44	0,94
environmentalconsumer_self	184	0,98	0,84
ethicalconsumer_others	184	0,65	0,82
ethicalconsumer_self	183	1,00	0,86
Socio-economic background			
gender	186	0,44	0,50
age	186	1,98	1,52
income	183	0,50	0,90
education	185	1,80	0,41
Price difference variables			
pricediff0_eco	176	87,66	27,24
pricediff05_eco	173	69,88	38,63
pricediff2_eco	173	48,69	42,51
pricediff5_eco	173	27,85	35,02
pricediff10_eco	173	14,64	28,74
pricediff0_fair	159	74,70	35,95
pricediff4_fair	154	53,36	41,00
pricediff15_fair	154	26,29	34,92
pricediff30_fair	154	12,91	25,15
pricediff50_fair	154	7,85	19,74

Table 3: Regression and price difference variables

5.1.1 Willingness to pay for ELM

On average respondents stated that they were willing to pay 3.5 SEK more for one litre of ELM compared to one litre of regular milk. Given the assumption that ELM

cost the same as regular milk, almost 80 percent of the respondents stated that they would then exclusively buy ELM. Also, 70 percent said they were willing to buy ELM if it cost 1 SEK more than regular milk. This is interesting since the average price difference as of today is roughly 1 SEK.[16] The number (70 percent) indicates only a small deviation from the share of respondents stating actual purchases of ELM in the last year (74 percent). 3.5 percent stated that they were not willing to pay any extra amount of money for ELM and 5.2 percent said they were willing to buy ELM even if it cost 10 SEK per litre more than regular milk. The diagram below shows the average share of ELM that respondents would buy at given additional price levels compared to regular milk.
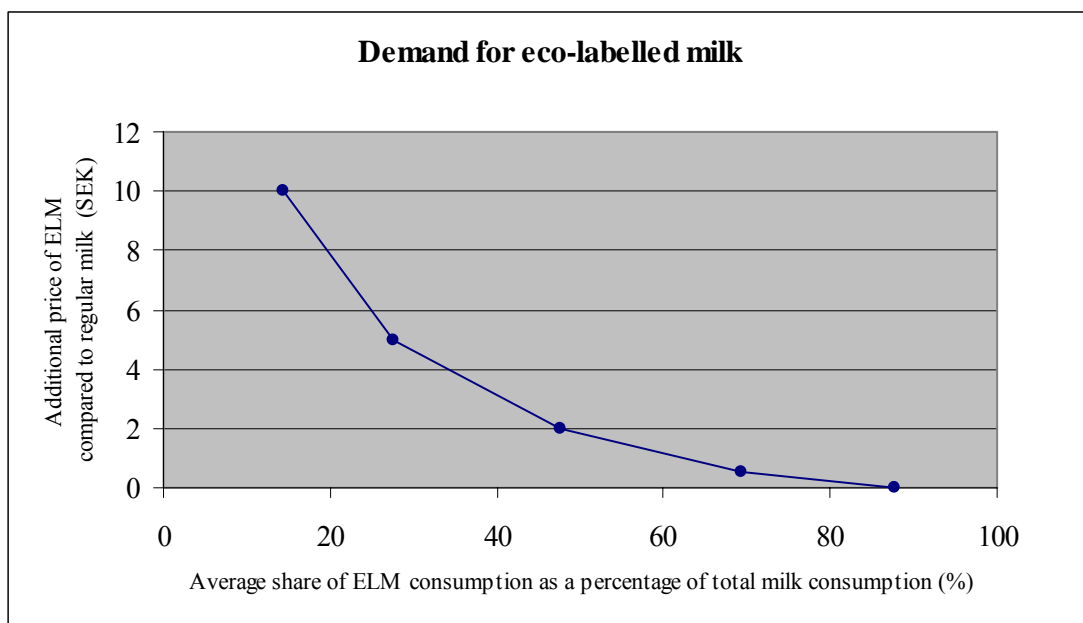
Figure 4: Demand function for eco-labelled milk[17]

5.1.2 Willingness to pay for FTC

On average respondents were willing to pay 12 SEK more for half a kilogram of FTC compared to the same amount of regular coffee. Given the same price level for FTC compared to regular coffee, as many as 59 percent stated that they would exclusively buy FTC. At the current price level difference of 8 SEK/package, 50 percent said they were willing to buy FTC, not a remarkable deviation from the number of respondents stating actual purchases of FTC in the last year (39 percent). 10 percent said they were not willing to pay any extra amount of money for FTC. 2 percent stated that they were

[16] Estimation of current average price differences for ELM and FTC were obtained through observations in numerous supermarkets and food stores in Stockholm city.
[17] Share of consumption of ELM at different price differences can also be found in table 3

willing to buy FTC even if it cost 50 SEK more than regular coffee. The diagram below shows the average share of FTC that respondents would buy at given additional price levels compared to regular coffee.


Demand for fair trade coffee

X-axis: Average share of FTC as a percentage of total coffee consumption (%)
Y-axis: Additional price of FTC compared to regular coffee (SEK)
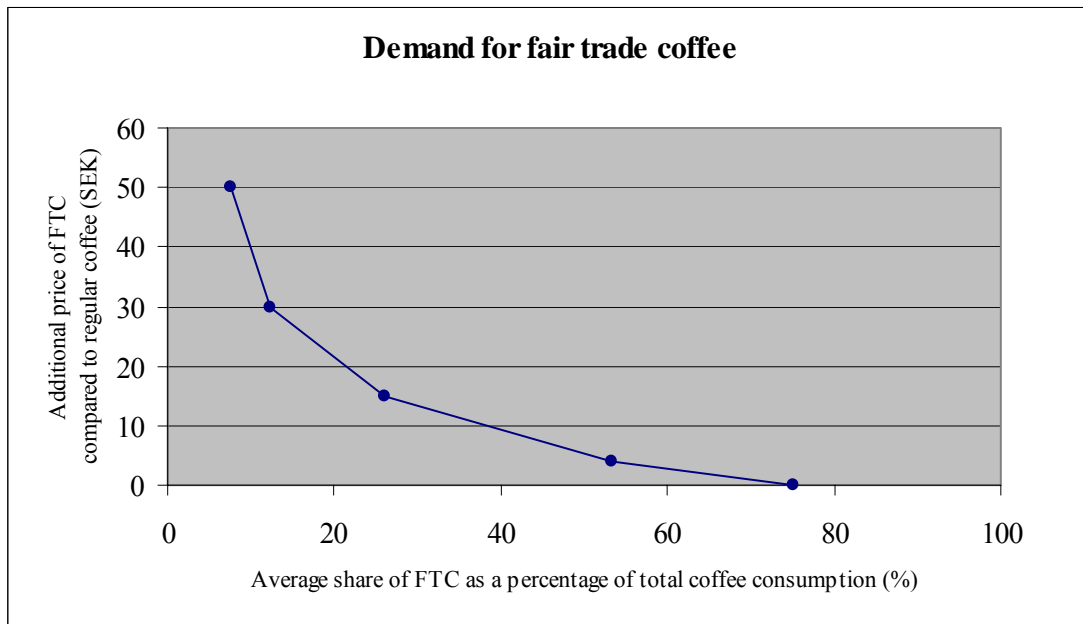
Figure 5: Demand function for fair trade coffee[18]

5.2 Eco-labelled milk

A large majority (66 percent) perceived ELM as being somewhat or much healthier than regular milk. The remaining 34 percent thought they were both equally healthy. Most respondents (78 percent) did not think it was any difference in taste between ELM and regular milk, however, a non-negligible group (19 percent) thought percent thought ELM tasted somewhat or much better than regular milk and a few (3 percent) believed ELM tasted worse. A very large majority (90 percent) thought that ELM production was somewhat or much more environmentally friendly than regular milk production. A similar number (89 percent) believed that the animal care was somewhat or much better in ELM production than in regular milk production.

75 percent stated that consumption of ELM would be perceived as somewhat or very positive among their important others. The other 25 percent stated that ELM consumption would be perceived as neither positive nor negative or somewhat negative among their important others. A large group (83 percent) of the respondents said that at least one of their important others had bought ELM. On average,

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[18] The price differences can also be found in table 3

respondents stated that their important others bought 33 percent ELM as a percentage of total milk consumption.

5.2.1 Share of ELM as dependent variable

When looking at the ELM consumption as a percentage of total milk consumption, i.e. *share_eco*, regression analysis show that the explanatory variables used can explain 45 percent of the variation in *share_eco* in the sample. Adjusted R^2 is 0.455. Six of the explanatory variables used are significant at the 10 percent level. These variables also have signs according to expectations. The variables are: *taste_eco*, *environment_eco*, *importantothers_eco*, *environmentalconsumer_self*, *gender* and *income*.

	Regression coefficient β	Std. Error	t-value	Sig.
(Constant)	-10,368	12,866	-0,806	0,422
health_eco	1,179	4,553	0,259	0,796
taste_eco	7,910	4,349	1,819	0,071
environment_eco	11,421	4,338	2,633	0,009
animalcare_eco	1,698	4,749	0,358	0,721
Importantothers_eco	11,641	3,573	3,258	0,001
environmentalconsumer_others	-0,507	3,008	-0,169	0,866
environmentalconsumer_self	15,749	3,759	4,190	0,000
charity	-1,220	2,085	-0,585	0,559
humanrightsorg	8,209	5,870	1,399	0,164
environmentalorg	0,098	6,511	0,015	0,988
gender	-12,591	5,005	-2,516	0,013
age	-3,016	1,839	-1,640	0,103
income	5,361	3,158	1,698	0,092
education	8,555	5,840	1,465	0,145
Dependent variable: *share_eco*				
Selecting only cases for which *buymilk*=yes				

Figure 6: Regression analysis with share of ELM as dependent variable

The most important of these variables in explaining the share of ELM is *environmentalconsumer_self* with a regression coefficient of 15.7. This implies that if some people think it is one "scale point"[19] more important to appear as an environmental consumer towards themselves, these people will be expected to have a share of ELM that is 15.7 percentage points higher, ceteris paribus. The second most important explanatory variable is *importantothers_eco* with a regression coefficient of

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[19] This notion refers to a movement along the scales defined in section 4.4

11.6 with the implication being that if some people think that their consumption of ELM will be viewed as one scale point more favourably valued among their important others, these people will on average have a share of ELM that is 11.6 percentage points higher, ceteris paribus. The other significant variables interpreted in a corresponding way as above are *taste_eco* with a regression coefficient of 7.9 and *environment_eco* at 11.4. The significant dummy variables are *gender* and *income*. The regression coefficient for gender is -12.6. This means that women are expected to have a 12.6 percentage points higher share of ELM consumption than men. The corresponding value for income is 5.4. This means that if a person's salary increases by 10000 SEK/month, that person will on average increase the share of ELM by 5.4 percentage points. The other variables that are fairly close to being significant are the following variables: *age*, *education* and *humanrightsorg*. The significance levels are 0.10, 0.15 and 0.16 respectively. These three variables also have expected signs and the regression coefficients are -3.0, 8.6 and 8.2 respectively. The remaining variables *health_eco*, *animalcare_eco*, *environmentalconsumers_others*, *charity* and *environmentalorg* are not close to being significant and all have small regression coefficients.

5.2.2 Willingness to pay for ELM as dependent variable

When looking at willingness to pay for ELM (*wtp_eco*), as the dependent variable while using the same set of explanatory variables, the result is similar, but there are a few differences that are worth noting. Adjusted R^2 is 0.443. The significant variables are now: *taste_eco*, *environment_eco*, *environmentalconsumer_self*, *gender*, *age* and *education*. The interpretation of the regression coefficients are that as the explanatory variables increase one scale point that person will be willing to spend β more SEK for one litre of ELM.

	Regression coefficient β	Std. Error	t-value	Sig.
(Constant)	-1,309	1,008	-1,299	0,196
health_eco	0,323	0,348	0,928	0,355
taste_eco	0,818	0,344	2,382	0,018
environment_eco	0,875	0,346	2,528	0,013
animalcare_eco	0,162	0,375	0,432	0,666
importantothers_eco	0,289	0,275	1,052	0,294
environmentalconsumer_others	-0,046	0,231	-0,199	0,843
environmentalconsumer_self	1,283	0,290	4,427	0,000
charity	-0,053	0,162	-0,326	0,745
humanrightsorg	0,602	0,458	1,313	0,191
environmentalorg	0,181	0,522	0,346	0,730
gender	-0,813	0,388	-2,094	0,038
age	-0,309	0,146	-2,115	0,036
income	0,360	0,246	1,467	0,145
education	1,215	0,455	2,672	0,008
Dependent variable: *wtp_eco*				
Selecting only cases for which *buymilk*=yes				

Figure 7: Regression analysis with willingness to pay for ELM as dependent variable

As when looking at *share_eco* as the dependent variable both *taste_eco* and *environment_eco* are significant variables with regression coefficients of 0.82 and 0.88 respectively. The interpretation is that if a person thinks that ELM tastes one scale point better relative to regular milk, that person will be willing to pay 0.82 SEK more for one litre of ELM. Similar to *share_eco*, the most important variable for the regression analysis is *environmentalconsumer_self* with a regression coefficient of 1.28. However, the variable *importantothers_eco* is no longer significant and has a low regression coefficient.

The socio-economic background variables *gender*, *age*, *income* and *education* are similar to the previous regression but their relative weights have shifted a little. Out of the four, *income* is no longer significant at the 10 percent level with a significance level of 0.15 and a regression coefficient of 0.36. Instead, *age* and *education* are now significant even at the 5 percent level with regression coefficients of -0.31 and 1.22 respectively.

5.3 Fair trade coffee

The beliefs regarding the healthiness of FTC are similar to the beliefs concerning ELM, but the relative weight is shifted. Hence, a large majority (66 percent) believe that FTC and conventional coffee are have equal health effects and the remaining 34 percent perceived FTC as being somewhat or much healthier than regular coffee. Perception of taste is also similar to the results for ELM. A large majority (68 percent) considers FTC taste to be the same as conventional coffee taste. 20 percent believed that FTC tasted better than regular coffee and a not insignificant group (12 percent) believed FTC tasted somewhat or much worse than regular coffee. In addition, many respondents (73 percent) said they thought that the environmental effects of FTC production were superior to environmental effects of regular coffee production. The remaining 27 percent thought that there was no difference or that fair trade production was worse from an environmental standpoint. Respondents were in large agreement regarding the favourable working conditions in FTC production. A massive 93 percent believed that work conditions were somewhat or much better in FTC production than in regular coffee production.

With regards to perception of FTC among important others, 69 percent stated that consumption of FTC would be perceived as somewhat or very positive among their important others. 31 percent stated that FTC consumption would be perceived as neither positive nor negative or negative among their important others. A majority (63 percent) of the respondents stated that at least one of their important others had bought FTC and on average, respondents stated that their important others bought 17 percent FTC as a percentage of total coffee consumption.

5.3.1 Share of FTC as dependent variable

When looking at FTC consumption as a percentage of total coffee consumption, i.e. *share_fair*, regression analysis show that the explanatory variables used can explain 21 percent of the variation in *share_fair* in the sample. Adjusted R^2 is 0.209. Three of the explanatory variables are significant even at the 5 percent level. These variables also have signs according to expectation. The three variables are *taste_fair*, *ethicalconsumer_self* and *gender*.

	Regression coefficient β	Std. Error	t-value	Sig.
(Constant)	2,562	12,621	0,203	0,839
health_fair	3,370	4,920	0,685	0,495
taste_fair	8,341	3,733	2,235	0,027
environment_fair	-1,590	4,291	-0,371	0,712
workcondition_fair	5,429	4,317	1,257	0,211
importantothers_fair	1,208	3,371	0,358	0,721
ethicalconsumer_others	2,690	3,655	0,736	0,463
ethicalconsumer_self	8,474	3,763	2,252	0,026
charity	-1,185	2,024	-0,586	0,559
humanrightsorg	-4,349	5,801	-0,750	0,455
environmentalorg	-0,491	6,885	-0,071	0,943
gender	-11,007	5,211	-2,112	0,037
age	1,118	1,759	0,636	0,526
income	-2,525	2,976	-0,848	0,398
education	1,882	5,809	0,324	0,747
Dependent Variable: *share_fair*				
Selecting only cases for which *buycoffee*=yes				

Figure 8: Regression analysis with share of FTC as dependent variable

The three significant variables *taste_fair*, *ethicalconsumer_self* and *gender* are about equally important in explaining the variation in *share_fair*. The regression coefficient for *taste_fair* is 8.3. This implies that if some people think that FTC tastes one scale point better than regular coffee, these people will be expected to have a share of FTC that is 8.3 percentage points higher, ceteris paribus. The regression coefficient of *ethicalconsumer_self* is 8.5 and the regression coefficient of *gender* is -11.0. Men are thus expected to have a share of FTC that is eleven percentage points lower than women. None of the other variables are significant even at the 20 percent level.

5.3.2 Willingness to pay for FTC as dependent variable

When instead using willingness to pay for FTC (*wtp_fair*), as the dependent variable while keeping the explanatory variables the same, results are similar, but not identical. Adjusted R^2 is now 0.330, a fairly large change from the previous regression with *share_fair* as the dependent variable. As before, *taste_fair*, *ethicalconsumer_self* and *gender* are significant at the 10 percent level and with fairly similar regression coefficients as in the previous regression.

	Regression coefficient β	Std. Error	t-value	Sig.
(Constant)	-1,022	4,557	-0,224	0,823
health_fair	0,616	1,747	0,352	0,725
taste_fair	2,360	1,394	1,692	0,093
environment_fair	1,432	1,490	0,961	0,339
workcondition_fair	1,489	1,555	0,957	0,340
importantothers_fair	1,527	1,181	1,294	0,198
ethicalconsumer_others	0,182	1,263	0,144	0,886
ethicalconsumer_self	3,832	1,340	2,860	0,005
charity	-0,467	0,724	-0,645	0,520
humanrightsorg	-2,344	2,102	-1,115	0,267
environmentalorg	4,297	2,470	1,740	0,084
gender	-3,832	1,826	-2,099	0,038
age	0,218	0,644	0,339	0,736
income	-1,023	1,057	-0,968	0,335
education	3,056	2,080	1,469	0,144
Dependent Variable: *wtp_fair*				
Selecting only cases for which *buycoffee*=yes				

Figure 9: Regression analysis with willingness to pay for FTC as dependent variable

The regression coefficient for *taste_fair* is 2.4 with the interpretation that a person who thinks FTC tastes one scale point better relative to regular coffee is expected to be willing to pay 2.4 SEK more for half a kilogram of FTC. The regression coefficient for *ethicalconsumer_self* is 3.8 and the regression coefficient for *gender* is -3.8. Men are thus expected to be willing to pay 3.8 SEK less than women for half a kilogram of FTC. However, in addition to these three variables the variable *environmentalorg* is now significant with a regression coefficient of 4.3. The interpretation being that people who are members of an environmental organisation will on average be willing to pay 4.3 SEK more for half a kilogram of FTC.

5.3.3 Regression analysis with men and women separated

Regressions where men and women were selected separately showed a few results diverging from the results of the general regressions, especially when looking at willingness to pay for FTC. While *taste_fair* seem to be very important for men when determining *wtp_fair*, it is not significant at all and has a low regression coefficient for women. The opposite can be found when looking at the variable *environmentalorg* which has a high as well as significant regression coefficient for women while being low and insignificant for men. At this point it is important to point out that these

regressions are performed with about half the total sample which implies a significantly lower statistical power.

6. Discussion and Conclusion

The survey results show that the selected sample of Stockholm consumers has positive attitudes towards both ELM and FTC. All descriptive statistics show more favourable ratings for both of these ethical products' characteristics than for their conventional counterparts. The share of ELM and FTC consumption is substantially larger than what could be expected from a general sample and the stated willingness to pay for these products are also higher than what has been found in other studies.

Overall, the regression model does a better job at explaining share and willingness to pay for the ELM than it does for the FTC (average R^2 of 0.45 compared to 0.27). This could be due to factors such as a lower awareness of the younger "Fair trade"-label compared to the "KRAV"-label, a fact that has been clearly stated to affect the consumption of ethical products. Furthermore, differences in product types could affect the outcome as milk is likely to be perceived as a more homogenous product than coffee. Also, the more limited availability of FTC compared to ELM as well as the larger number of brands within the coffee segment could further explain the reduced explanatory power of the regressions with FTC variables. For example, a person might have very positive attitudes toward FTC but be accustomed to purchasing the same conventional coffee brand for years. This deeply rooted habit could cause the person to refrain from buying FTC.

A few variables were significant in explaining the demand for the ELM and FTC. All significant variables have expected signs and thus the anticipated effect on consumption and willingness to pay. Somewhat surprising is how a number of variables that were expected to be significant turned out not to be and in some cases even had signs opposite of expectations. However, given the relatively small sample and low response variation, the results are fairly satisfying. The following part of this discussion will evaluate the explanatory variables in the following order: *egoistic*, *altruistic*, *signalling of altruistic* and *socio-economic background* variables, with ELM and FTC compared in parallel to each other.

Egoistic preferences

Perceived health and taste attributes were expected to be important in determining whether people bought and/or was willing to pay for ELM and FTC, this was also stated by earlier research. However, only taste was a significant egoistic variable for both ELM and FTC. Given the fairly small perceived difference in taste for ELM and FTC compared to regular milk and coffee it is likely to be the case that people who demand ELM or FTC believe that the products taste better than their conventional counterparts while people who do not demand ELM or FTC believe that they taste worse than their conventional counterparts.

The fact that people place taste as one of the most important determinants in regards to buying ethical products of this kind reflects an egoistic side to the consumption behaviour. People do not want to buy a product that they believe taste worse just in order to behave ethically, rather they prefer to buy the conventional products as they are presumed to taste better. Interesting to point out is that when looking at willingness to pay for FTC taste seems to be a very important factor for men, but not at all important for women.

In contrast to taste, health does not explain any major differences in the dependent variables. This should not be seen as evidence that healthiness is not believed to be characteristics of ELM and FTC. It simply shows that even people who do not consume ELM believe it has positive characteristics and that it therefore cannot be stated as a determinant separating buyers from non-buyers. As a verification, a large majority of respondents stated that the level of health was higher in ELM than regular milk (average 0.78). As a matter of fact, not a single respondent believed that ELM was unhealthier than regular milk. It is important to point out that the limited variation in beliefs about the healthiness of ELM makes it difficult to identify the effects of this variable on demand.

Altruistic preferences

As indicators of altruistic characteristics, environmental effects as well as animal care (ELM) and work conditions (FTC) were expected to be important motives for demanding ELM and FTC. Furthermore, donations to charity as well as memberships in environmental and/or human rights organization were considered possible

determinants of demand for ELM and FTC. Results show that perceived environmental effects are important in determining demand of ELM. Importance of environmental concerns as a motive behind ethical consumption has been shown in earlier research. Somewhat surprising is the insignificance of animal care and work conditions as indicators of demand for ELM and FTC. Most people, regardless of propensity to demand ELM and FTC believe that animal care and work conditions are better in ELM and FTC production than conventional production (averages of 1.20 and 1.44). As when considering health aspects this indicates a general positive attitude to ELM and FTC as regards to these aspects regardless of actual purchased share and the stated willingness to pay for these products.

Furthermore, results show that membership in an environmental organization is a significant determinant to willingness to pay for FTC. This is not surprising as people engaged in essentially altruistic organizations are expected to be willing to pay more for ethical products. However, environmental organizations were perhaps expected to be correlated more with ELM demand than FTC demand. The opposite was expected for human rights organizations but no such significant correlation was found. Interestingly, the positive correlation between membership in environmental organization and willingness to pay for FTC seem to be much larger for women than men. Perhaps most surprising in this category is that no significant relationship between charity and demand for ELM and FTC could be established. This could indicate that consumption of ethical products can not be seen as closely related to donations to charity.

Signalling of altruistic preferences

Beliefs about how close friends and family view ethical purchases as well as the importance of appearing as an environmental/ethical consumer were viewed as vital components in the prestige or signalling motives behind purchases of ethical products. Although these motives are subject to social desirability on behalf of respondents and adequate answers are difficult to collect, findings in this category can not be ignored. Results show that on average respondents believe that their important others have positive attitudes towards ELM and FTC (averages of 1.08 and 0.96). More importantly, results show that the attitude of important others regarding ELM is heavily correlated to the share of ELM consumption. People who have close friends

and family with a favourable opinion about ELM are also expected to have a much larger share of ELM consumption.

Regarding environmental and ethical appearance towards others and oneself results show that respondents find it more important to appear as environmental and ethical towards oneself (0.98 and 1.00) than towards others (0.44 and 0.65). Regression analyses further show that environmental and ethical appearance towards oneself is not only significant but also strongly positively correlated with share and willingness to pay for both ELM and FTC. For ELM this was the most important explanatory variable. People who find it important to signal that they are environmentally and ethically concerned consumers are thus more likely to consume and be willing to pay more for ethical products. Appearance towards other people was not significant in any of the regressions, but this is also one of the more sensitive questions in the questionnaire which could be affected by biases. With reference to Johansson-Stenman and Martinsson (2006), it is rather likely that the appearance towards oneself or the perceived self-image is somewhat overstated and that people in fact do care about what others think. Environmental and ethical appearances could be important determinants of ethical consumption; however, the design of the questionnaire might not capture these effects in a satisfying way.

Socio-economic background aspects

Earlier research has shown that socio-economic factors play a substantial part in determining demand for ethical food products. In this study the most important socio-economic background factor was gender with a sizeable difference between men and women in all regressions. As expected women were far more likely to consume and be willing to pay more for both ELM and FTC than men. For FTC this was the only significant socio-economic background factor.

Age was negatively correlated to demand for ELM, which was expected as younger people tend to be more open to ethical consumption in general. It was thus surprising that no such significant correlation could be established for FTC. Similarly, income and education showed an expected positive correlation to demand for ELM but like the age factor no such relationship could be shown in regards to FTC.

Conclusion

The main purpose of this thesis was to estimate the determinants of the demand for ELM and FTC. Results show that elements of egoism, signalling of altruism as well as socio-economic background factors all affect share of consumption and willingness to pay for both ELM and FTC, but none of them standout as the main category of determinants of demand for ethical food products. Worth noting is the limited effect of altruistic elements in determining demand for ethical products. Results further demonstrate that the explanatory variables do a better job of explaining demand for ELM than FTC, possibly due to lack of availability and awareness for FTC. Even though an overall positive attitude towards ethical food products existed, the most important factors in explaining demand are perceived taste, environmental/ethical self-image and gender. In addition, beliefs about environmental effects as well as the attitude of close friends and family play an important part in estimating the share of consumption for ELM. Those factors did not influence demand for FTC where instead membership in environmental organizations indicated a higher willingness to pay for FTC. No relationship could be established between donations to charity and the demand for ethical food products. Perhaps the most surprising result was the lack of health aspects as a factor of relevance for demand, particularly in regards to ELM.

Further research

For future research is suggested that a similar study is redone with a general sample in order to draw broad and more unambiguous conclusions regarding determinants behind different kinds of ethical consumption. Other possible further research is using a real experiment setting in order to overcome the possible gap between stated intention and actual behaviour.

REFERENCES

ALTMAN, M. (2006), "Opening-up the Objective Function: Choice Behaviour and Economic and Non-economic variables – Core and Marginal Altruism". *Economic Bulletin* Vol.4, No.33, 1-7

ANDERSEN, J.G. and TOBIASEN M. (2003), "Who Are These Political Consumers Anyway?: Survey Evidence from Denmark". In MICHELETTI, M., FOLLESDAL, A. and STOLLE, D. (2004), (eds.) *Politics, Products and Markets -Exploring Political Consumerism Past and Present*. New Jersey: Transaction Publishers

ARNOT, C., BOXALL, P.C. and CASH, S.B. (2006), "Do Ethical Consumers Care About Price? A Revealed Preference Analysis of Fair Trade Coffee Purchases". *Canadian Journal of Agricultural Economics,* Vol.54, 555-565

AXELSSON NYCANDER, G. (1999), *Etik och handel: En studie om fair trade.* Stockholm: Konsumentverket och SIDA

BECKER, G. S. (1998)**,** *Accounting for Tastes*. USA: Harvard University Press

BENABOU, R. and TIROLE, J. (2006)**,** "Incentives and Prosocial Behaviour". *American Economic Review*, Vol.96, No.5, 1652-1678

BIRD, K. and HUGHES, D. R (1997)**, "**Ethical Consumerism: The Case of "Fairly-Traded" Coffee". *Business Ethic,* Vol.6, No.3, 159-167

BLIEGE BIRD, R. and SMITH, E. A. (2005), **"**Signalling Theory, Strategic Interaction, and Symbolic Capital". *Current Anthropology,* Vol.46, No.2, 221-247

BRINKMANN, J. (2004) "Looking at Consumer Behaviour in a Moral Perspective". *Journal of Business Ethics,* Vol.51, Issue 2, 129-141

CARRIGAN, M. and ATTALLA, A. (2001), **"**The Myth of the Ethical Consumer – Do Ethics Matter in Purchase Behaviour?" *Journal of Consumer Marketing*, Vol.18, No.7, 560-577

DE PELSMACKER P., DRIESEN, L. and RAYP, G (2005)**,** "Do Consumers Care about Ethics? Willingness to Pay for Fair-Trade Coffee". *The Journal of Consumer Affairs*, Vol.39, No.2, 363-385

DOWELL, R. S., GOLDFARB, R. S. and GRIFFITH, W. B. (1998) "Economic Man as a Moral Individual"; *Economic Inquiry*; Vol.36, No.4, 645-653

FOTOPOULOS, C. and KRYSTALLIS, A. (2002),"Purchasing Motives and Profile of the Greek Organic Consumer: A Countrywide Survey". *British Food Journal*, Vol.104, No.9, 730-765

FRANK, R. H. (1987), "If Homo Economicus could choose his own utility function, would he want one with a conscience?" *The American Economic Review*, Vol.77, No.4, 593-604

GLAZER, A. and KONRAD, K. A. (1996)**,** "A signalling explanation for charity". *The American Economic Review*, Vol.86, No.4, 1019-1028

GOULD, N. J. (2003)**,** "Fair Trade and the consumer interest: a personal account". *International Journal of Consumer Studies*, Vol.27, Issue 4, 341-345

GOWDY, J. M. (2004), "Altruism, evolution, and welfare economics". *Journal of Economic Behaviour & Organization,* Vol.53, 69-73

HARRISON, R., NEWHOLM, T. and SHAW, D. (2005) "Introduction". In Harrison, R., Newholm, T. and Shaw, D. (eds.) *The Ethical Consumer*. London Wiltshire: SAGE

HENRICH, J., BOYD, R., BOWLES, S., CAMERER, C., FEHR, E., GINTS, H. and McELREATH, R. (2001) "In search of Homo Economicus: Behavioural Experiments in 15 small-scale societies". *Economics and Social Behaviour*, Vol.91, No.2,73-78

HILL, H. and LYNCHEHAUN, F. (2002)**; "**Organic milk: attitudes and consumption patterns". *British Food Journal,* Vol. 104, No.7, 526-542

HIRSHLEIFER, J. (1985)**,** "The Expanding Domain of Economics". *The American Economic Review*, Vol.75, No.6, 53-68.

JOHANSSON-STENMAN, O. and MARTINSSON, P. (2006) "Honestly, why are you driving a BMW?" *Journal of Economic Behaviour and Organization*, Vol. 60, No.2, 129-46

JONES, P., COMFORT, D. and HILLIER, D. (2003), "Retailing fair trade food products in the UK". *British Food Journal,* Vol.105, No.11, 800-810

LINDSEY, B. (2004), *Grounds for complaint?* London: Adam Smith Institute

LOCKIE, S., LYONS, K., LAWRENCE, G., and MUMMERY, K. (2002), "Eating 'Green': Motivations behind Organic Food Consumption in Australia". *Sociologia Ruralis*, Vol.42, No.1, 23-40

LOOMIS, J., BROWN, T., LUCERO, B. and PETERSON, G. (1996)**,** "Improving validity experiments in contingent valuation methods: Results of efforts to reduce the disparity of hypothetical and actual willingness to pay". *Land Economics,* Vol.72 pp.450-61

LOUREIRO, M. and LOTADE, J. (2005) "Do fair trade and eco-labels in coffee wake up the consumer conscience?" *Ecological Economics,* Vol.53, No.1 pp.129-138

MAGNUSSON, M. K., ARVOLA, A., KOIVISTO H. U-K., ÅBERG, L. and SJÖDÉN, P-O. (2001), "Attitudes towards organic foods among Swedish consumers". *British Food Journal,* Vol.103, No.3 pp. 209-226

MALHOTRA, N. K (1996), *Marketing Research and Applied Orientation* (2nd ed.) USA

NICHOLLS, A. (2002), "Strategic options in fair trade retailing". *International Journal of Retail and & Distribution Management,* Vol.30, Issue 1, pp.6-17

NICHOLLS, A. AND OPAL, C. (2005), *Fair Trade: market-driven ethical consumption.* London: SAGE

O'CONOR, R. M., JOHANNESSON, M. and JOHANSSON, P-O. (1999), "Stated preferences, Real behaviour and Anchoring: Some Empirical Evidence". *Environmental and Resource Economics*, Vol.13 pp. 235-248

OZCAGLAR-TOULOUSE, N., SHIU, E. and SHAW, D. (2006), "In search of fair trade: Ethical Consumer Decision Making". *International Journal of Consumer Studies,* Vol.30, No.5, 502-514

RICHTER, E. M. and BUTTERY, E. A. (2002), "Convergence of ethics?" *Management Decision,* Vol.40, No.2 pp. 142-151

SCHIFFERSTEIN, H.N.J and OUDE OPHUIS, P.A.M. (1998), "Health-related determinants of organic food consumption in The Netherlands", *Food Quality and Preference*, Vol. 9 No. 3 pp. 119-33

SEN, A. (1994)**,** "The formulation of rational choice"; *AEA Papers and Proceedings*, pp. 385-390

SHAW, D., SHIU, E. and CLARKE, I. (2000), "The contribution of ethical obligation and self-identity to the theory of planned behaviour: an exploration of ethical consumers". *Journal of Marketing Management,* Vol.16, No.8 pp. 879-94

SHAW, D. and SHIU, E. (2001), "Ethics in Consumer Choice: A Multivariate Modelling Approach". *European Journal of Marketing*, Vol.37, No.10, 1485-1498

SHAW, D. and SHIU, E. (2002a), "The Role of Ethical Obligation and Self-Identity in Ethical Consumer Choice". *International Journal of Consumer Studies,* Vol.26, No.2, pp.109-116

SHAW, D. and SHIU, E. (2002b), "An assessment of ethical obligation and self-identity on ethical consumer decision-making: a structural equation modeling approach"; *International Journal of Consumer Studies;* Vol.26, No.4, pp.286-293

SHAW, D. and SHIU, E. (2003), "Ethics in consumer choice: a multivariate modeling approach", *European Journal of Marketing,* Vol.37, No. 10 pp. 1485-1489

SMITH, A. (1759), *The Theory of Moral Sentiments.* Amherst, NY: Prometheus Books

SMITH, A. (1970), *The Wealth of Nations.* Harmondsworth,: Penguin

SMITH, T. W. (2006), "Altruism and empathy in America: Trends and Correlates". National Opinion Research Center, University of Chicago

STRONG, C. (1996), "Features contributing to the growth of ethical consumerism- a preliminary investigation". *Marketing Intelligence & Planning,* Vol. 14, Issue 5 pp. 5-13

STRONG, C. (1997), "The problems of translating fair trade principles into consumer purchase behaviour", *Marketing Intelligence & Planning,* Vol. 15, No.1 pp.32-37

TANNER, C. and WÖFLING KAST, S. (2003), "Promoting sustainable consumption: Determinants of green purchases by Swiss consumers". *Psychology w Marketing,* Vol.20, No.10 pp. 883-902

TREGEAR, A., DENT, J.B. and MCGREGOR, M.J. (1994), "The demand for organically grown produce". *British Food Journal*, Vol.96 No.4 pp. 21-25

WANDEL, M. and BUGGE, A. (1997); "Environmental concern in consumer evaluation of food quality". *Food Quality and Preference,* Vol.8, No.1, pp. 19-26

Electronic resources:
KRAV Ekonomisk förening. Available [online]:
http://www.krav.se/default.asp [2007-02-25]

Konsumentundersökning om ekologiska produkter/KRAV (1999). Available [online]:
http://arkiv.krav.se/arkiv/rapporter/luiund.pdf [2007-02-25]

Building trust, FLO Annual Report 2005-2006 (2006). Available [online]:
http://www.fairtrade.net/uploads/media/FLO_Annual_Report_05.pdf [2007-02-25]

Fair Trade in Europe 2005 (2006)**:** Available [online]:
http://www.fairtrade.net/uploads/media/FairTradeinEurope2005.pdf [2007-02-06]

Rättvisemärkt 2006 (2007) Available [online]:
http://www.rattvisemarkt.se/obj/docpart/e/e7dbe36cd3eff208b62bfe5c49cb7fd8.pdf [2007-02-25]

Fair Trade _a_. Available [online]:
www.fairtrade.net [2007-02-25]

Fair Trade _b_. Available [online]:
www.rattvisemarkt.se [2007-02-25]

SCB_a_: Livsmedelsförsäljningsstatisk (2005) Available [online]:
http://www.scb.se/templates/Publikation_____175550.asp#BM5
[2007-04-03]

SCB_b_: Livsmedelsförsäljningsstatistik (2004) Available [online]:
http://www.scb.se/Statistik/HA/HA0103/2004A01/HA0103_2004A01_SM_HA24SM0501.pdf
[2007-02-25]

SCB_c_: Import och export av jordbruksvaror och livsmedel (2006) Available [online]:
http://www.scb.se/statistik/_publikationer/JO1901_2005A01_BR_20_JO01SA0601.pdf
[2007-04-03]

SCB_d_: Sveriges befolkning efter kön och ålder (2006) Available [online]:
http://www.scb.se/templates/tableOrChart_____78315.asp
[2007-02-25]

SCB_e_: Befolkningens utbildning (2006) Available [online]:
www.scb.se/UF0506
[2007-02-25]

Vad är ekologisk mat?(2005) Konsumentverket. Available [online]:
http://www.konsumentverket.se/mallar/sv/artikel.asp?lngArticleID=477&lngCategoryID=1285
[2007-02-25]

Faktablad 21-EU 2006 (rev oct. 2006) Livsmedelsverket. Available [online]:
http://www.slv.se/upload/dokument/markning/ekologisk/Faktablad_EUekolloga_2006.pdf
[2007-02-25]

Figure references:
Figure 1: *Svensk Mjölk,* Available [online]:
http://www.statistik.svenskmjolk.se/tabels/ekologiskkonsumtionsmjölk06.pdf
[2007-03-15]

Figure 2: *Fair trade UK:* Available [online]:
http://www.fairtrade.net/coffee.html (2004-05)
http://fairtrade.net/sites/products/coffee/sales.html (2000-03)
[2007-03-29]

APPENDIX

APPENDIX 1

Table of correlations between explanatory variables in regressions regarding eco-labelled milk

	health_eco	taste_eco	environment eco	animalcare eco	importantothers eco	environmentaltalconsumer others	environmentaltalconsumer self	charity	humanright sorg	environmenta lorg	sex	age	income	education
health_eco	1	,374(**)	,398(**)	,373(**)	,154(*)	,352(**)	,187(*)	0,128	-0,054	0,016	0,011	-0,105	0,001	-0,005
taste_eco	,374(**)	1	,254(**)	,181(*)	,290(**)	,323(**)	,179(*)	-0,054	0,016	0,011	-0,105	0,001	-0,005	-0,032
environment_eco	,398(**)	,254(**)	1	,435(**)	,305(**)	,350(**)	,209(**)	0,087	0,130	,165(*)	-0,067	0,013	-0,037	0,005
animalcare_eco	,373(**)	,181(*)	,435(**)	1	,194(**)	,376(**)	,209(**)	,201(**)	0,143	,212(**)	-0,102	0,124	0,101	-0,076
importantothers_eco	,154(*)	,290(**)	,305(**)	,194(**)	1	,440(**)	,334(**)	0,076	,172(*)	,243(**)	-,212(**)	0,051	-0,019	,168(*)
environmentalconsume	,352(**)	,323(**)	,350(**)	,376(**)	,440(**)	1	,510(**)	0,059	0,004	0,135	-,197(**)	-0,118	0,025	-0,047
environmentalconsume	,187(*)	,179(*)	,209(**)	,209(**)	,334(**)	,510(**)	1	0,134	0,042	,241(**)	-,181(*)	0,039	0,066	0,022
charity	0,128	-0,054	0,087	,201(**)	0,076	0,059	0,134	1	,499(**)	,269(**)	-0,126	,341(**)	,257(**)	0,021
humanrightsorg	-0,054	0,016	0,130	0,143	,172(*)	0,004	0,042	,499(**)	1	,210(**)	-0,102	,236(**)	,212(**)	0,084
environmentalorg	0,016	0,011	,165(*)	,212(**)	,243(**)	0,135	,241(**)	,269(**)	,210(**)	1	-,186(*)	0,075	-0,054	-0,058
sex	0,011	-0,105	-0,067	-0,102	-,212(**)	-,197(**)	-,181(*)	-0,126	-0,102	-,186(*)	1	-0,105	-0,003	-0,106
age	-0,105	0,001	0,013	0,124	0,051	-0,118	0,039	,341(**)	,236(**)	0,075	-0,105	1	,381(**)	0,036
income	0,001	-0,005	-0,037	0,101	-0,019	0,025	0,066	,257(**)	,212(**)	-0,054	-0,003	,381(**)	1	0,066
education	-0,005	-0,032	0,005	-0,076	,168(*)	-0,047	0,022	0,021	0,084	-0,058	-0,106	0,036	0,066	1

Pearson correlation of explanatory variables for eco-labelled milk

(**). Correlation is significant at the 0,01 level (2-tailed).

(*). Correlation is significant at the 0,05 level (2-tailed).

Table of correlations between explanatory variables in regressions regarding fair trade coffee

	health _ fair	taste _ fair	environment _ fair	workcondition _ fair	importantothers _ fair	ethicalconsumer _ others	ethicalconsumer _ self	charity	humanrights org	environmental org	sex	age	income	education
health _ fair	1	,307(**)	,493(**)	,274(**)	0,123	,245(**)	,286(**)	,195(**)	0,041	0,116	-,212(**)	0,053	-0,014	-0,051
taste _ fair	,307(**)	1	,224(**)	0,06	,271(**)	0,093	,247(**)	-0,039	-0,103	0,135	-0,063	-0,052	-,164(*)	-0,111
environment _ fair	,493(**)	,224(**)	1	,469(**)	,267(**)	,210(**)	,182(*)	0,119	0,002	,173(*)	-,273(**)	0,082	0,062	0,004
workcondition _ fair	,274(**)	0,06	,469(**)	1	,335(**)	,262(**)	,268(**)	0,093	0,061	,152(*)	-0,088	0,005	-0,035	0,033
importantothers _ fair	0,123	,271(**)	,267(**)	,335(**)	1	,328(**)	,393(**)	0,084	0,118	,222(**)	-0,081	-,07	-0,019	,204(**)
ethicalconsumer _ others	,245(**)	0,093	,210(**)	,262(**)	,328(**)	1	,536(**)	0,045	0,019	0,077	-,156(*)	-0,051	0,008	-0,027
ethicalconsumer _ self	,286(**)	,247(**)	,182(*)	,268(**)	,393(**)	,536(**)	1	0,113	0,036	,239(**)	-,200(**)	0,051	0,061	0,081
charity	,195(**)	-0,039	0,119	0,093	0,084	0,045	0,113	1	,499(**)	,269(**)	-0,126	,341(**)	,257(**)	0,021
humanrightsorg	0,041	-0,103	0,002	0,061	0,118	0,019	0,036	,499(**)	1	,210(**)	-0,102	,236(**)	,212(**)	0,084
environmentalorg	0,116	0,135	,173(*)	,152(*)	,222(**)	0,077	,239(**)	,269(**)	,210(**)	1	-,186(*)	0,075	-0,054	-0,058
sex	-,212(**)	-0,063	-,273(**)	-0,088	-0,081	-,156(*)	-,200(**)	-0,126	-0,102	-,186(*)	1	-0,105	-0,003	-0,106
age	0,053	-0,052	0,082	0,005	-,07	-0,051	0,051	,341(**)	,236(**)	0,075	-0,105	1	,381(**)	0,036
income	-0,014	-,164(*)	0,062	-0,035	-0,019	0,008	0,061	,257(**)	,212(**)	-0,054	-0,003	,381(**)	1	0,066
education	-0,051	-0,111	0,004	0,033	,204(**)	-0,027	0,081	0,021	0,084	-0,058	-0,106	0,036	0,066	1

Pearson correlation of explanatory variables for fair trade coffee

(**). Correlation is significant at the 0,01 level (2-tailed).

(*). Correlation is significant at the 0,05 level (2-tailed).

APPENDIX 2

Questionnaire about eco-labelled milk and fair trade coffee

Below you find brief information about eco-labelling and fair trade labelling, the questionnaire starts on the next page.

Eco-labelled milk is mainly labelled with the "KRAV" logotype which guarantees production in accordance with the following restrictions:

- Good environment
- No chemicals
- Good animal care
- God health
- Social responsibility
- Reasonable income for farmers

Fair trade coffee is mainly labelled with the "Fair Trade" logotype which guarantees production in accordance with the following restrictions:

- Good work conditions
- Reasonable compensation for producer
- Reasonable compensation for employee
- Right to organization in a trade union
- Social responsibility

1. **Have you bought eco-labelled milk during the last year?**
   ☐ Yes
   ☐ No

2. **How large share of eco-labelled milk you buy?**

   Estimated percentage (%) of total milk consumption:_____

3. **How healthy do you think eco-labelled milk is compared to "regular" non eco-labelled milk?** (Please circle the best alternative)

Eco-labelled milk is much unhealthier	Is somewhat unhealthier	No difference	Is somewhat healthier	Eco-labelled milk is much healthier

4. **Do you think there is a difference in taste between eco-labelled milk and regular milk?**

Eco-labelled milk tastes much worse	Tastes somewhat worse	No difference	Tastes somewhat better	Eco-labelled milk tastes much better

5. **How environmentally friendly do you think eco-labelled milk production is compared to regular milk production?**

Eco-labelled milk is much less environmentally friendly	Is somewhat less environmentally friendly	No difference	Is somewhat more environmentally friendly	Eco-labelled milk is much more environmentally friendly

6. **How high do you think that the level of animal care is in eco-labelled milk production compared to regular milk production?**

Animal care is much worse in eco-labelled milk production	Is somewhat worse	No difference	Is somewhat better	Animal care is much better in eco-labelled milk production

7. **How do you think eco-labelled milk purchases are perceived as among your important others?**

Very negative	Somewhat negative	Neither negative nor positive	Somewhat positive	Very positive

8. **How large share of eco-labelled milk do you think that your important others buy?**

   Estimate percentage (%) of total milk consumption:_____

9. **How important are the following aspects when purchasing milk?** *(please rank 1-5 with 1=most important and 5=least important)*

   _____Personal health
   _____Taste
   _____Environmental effects of production
   _____Animal care in production
   _____Appreciation from important others

10. **On average, one litre of eco-labelled milk cost 1 SEK more than one litre of regular milk. If the price difference varied according to the table below, how large share of eco-labelled milk would you then buy?** *(Please fill in the right column)*

Price difference between eco-labelled milk and regular milk (SEK)	Estimated share of eco-labelled milk consumption (0-100 %)
0	
0,5	
2	
5	
10	

11. **Have you bought fair trade coffee during the last year?**
    ☐ Yes
    ☐ No

12. **How large share of fair trade coffee do you buy?**

    Estimated percentage (%) of total coffee consumption:_____

13. **How healthy do you think fair trade coffee is compared to "regular" non fair trade coffee?** *(Please circle the best alternative)*

Fair trade coffee is much unhealthier	Is somewhat unhealthier	No difference	Is somewhat healthier	Fair trade coffee is much healthier

14. **Do you think there is a difference in taste between fair trade coffee and regular coffee?**

Fair trade coffee tastes much worse	Tastes somewhat worse	No difference	Tastes somewhat better	Fair trade coffee tastes much better

15. **How environmentally friendly do you think fair trade coffee production is compared to regular coffee production?**

Fair trade coffee production is much less environmentally friendly	Is somewhat less environmentally friendly	No difference	Is somewhat more environmentally friendly	Fair trade coffee production is much more environmentally friendly

16. **How do you think work conditions (for example compensation and work environment) for fair trade coffee production differ from regular coffee production?**

Work conditions for fair trade coffee is much worse	Is somewhat worse	No difference	Is somewhat better	Work conditions for fair trade coffee is much better

17. How do you think fair trade coffee purchases are perceived as among your important others?

| Very negative | Somewhat negative | Neither negative nor positive | Somewhat positive | Very positive |

18. How large share of fair trade coffee do you think that your important others buy?

Estimate percentage (%) of total coffee consumption:_____

19. How important are the following aspects when purchasing coffee? *(please rank 1-5 with 1=most important and 5=least important)*

_____Personal health
_____Taste
_____Environmental effects of production
_____Animal care in production
_____Appreciation from important others

20. On average, one package (=0,5kg) of fair trade coffee cost 8 SEK more than one package of regular coffee. If the price difference varied according to the table below, how large share of fair trade coffee would you buy? *(Please fill in the right column)*

Price difference between fair trade and regular coffee (SEK)	Estimated share of fair trade coffee consumption (0-100 %)
0	
4	
15	
30	
50	

21. How important is it for you to appear as an environmental consumer towards others?

| Very unimportant | Fairly unimportant | Neither unimportant nor important | Fairly important | Very important |

22. How important is it for you to appear as an environmental consumer towards yourself?

| Very unimportant | Fairly unimportant | Neither unimportant nor important | Fairly important | Very important |

23. How important is it for you to appear as an ethical consumer towards others?

Very	Fairly	Neither	Fairly	Very
unimportant	unimportant	unimportant nor important	important	important

24. How important is it for you to appear as an ethical consumer towards yourself?

Very	Fairly	Neither	Fairly	Very
unimportant	unimportant	unimportant nor important	important	important

25. How much (SEK) have you donated to charity in the last year?

0-50	51-100	101-500	501-1000	1001-

26. Are you active/supporting member in any of the following non-profit organizations?
(You may check more than one)

- ☐ Swedish church
- ☐ Other religious communion
- ☐ Sports association
- ☐ Culture association
- ☐ Political party/club
- ☐ Human rights organization (Red Cross, Save the Children, Amnesty etc.)
- ☐ Environmental organization (WWF, SSNC, Greenpeace etc.)
- ☐ Other:_____

Personal information: *(Please check the best alternative)*

Gender:	☐ Woman	Monthly income:	☐ 0-20000
	☐ Man	*(SEK)*	☐ 20000-30000
			☐ 30000-40000
Age:	☐ 0-20		☐ 40000-50000
(Years)	☐ 21-30		☐ 50000-
	☐ 31-40		
	☐ 41-50	Education:	☐ Elementary school
	☐ 51-60		☐ High school
	☐ 61-70		☐ University
	☐ 70-		