Local food consumers

Who are they and what drives them?

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Contents

Abstract

While interest in local food is growing, only a small part of the population consumes them on a regular basis. To gain a thorough understanding of the underlying decision-making process, Value-Belief-Norm theory, Attitude-Behaviour-Context theory and Alphabet theory were combined together with personal and situational factors of Food-Related-Lifestyle, concern about food provisioning and accessibility context to form a new theoretical model. This model was tested for local food decision-making in general, but also for four specific local food outlets common in the Netherlands; the local supermarket, the health food shop, the farm shop and the Community Supported Agriculture farm. Four questionnaire versions, based on the four different local food outlets were administered among 689 participants. Results from the questionnaires confirmed that beliefs about local food differed from those about global food and that perceptions even significantly differed between the local food outlets. Furthermore attitudes towards local food and the various outlets were found to find their basis in product quality beliefs, but not in convenience beliefs. On top of that it was confirmed that positive attitudes lead to positive purchase intentions and in turn to positive purchase behaviour. Low accessibility of the outlets negatively influenced attitudes and purchase intentions. Concern about food provisioning and Food-Related-Lifestyle only to a small extent influenced the relationship between beliefs and attitudes. More research is needed to disclose how these factors influence the decision-making process.

1. Introduction

1.1 Context

In the recent decades, considerable changes have occurred in the food supply chain (Watkiss et al., 2005). Globalisation of knowledge has boosted the green revolution during the early and mid-twentieth century. The green revolution made the food production system more efficient, leading to higher yields and the possibility to feed a

growing population. This enormous increase in production was made possible through mechanization, the introduction of high-yielding varieties of crops and increased usage of fertilizers, pesticides and irrigation (Horrigan et al., 2002). This led to a further globalisation of the food industry in which food products are sourced from all around the world and imports and exports keep on rising. Sales of food products are concentrated in supermarkets, which have almost all foods year around on stock (Watkiss et al., 2005). However, these benefits are also coupled with great costs to the environmental and social fabric (Horrigan et al., 2002).

The first issue of the current globalised food system is the huge increase in transport distance and the amount of carbon dioxide that is generated by agriculture in general and by transport in particular. Agriculture taken as a whole, including fuel use, land use change and fertilizer production, contributes to between 19 and 30% of greenhouse gas (GHG) emissions (Brown & Jameton, 2000; Garnett, 2001; Vermeulen et al., 2012) which results in 9800 to 16900 mega tonnes of carbon dioxide equivalent (CO_2 eq.) being released each year (Vermeulen et al., 2012). About 12% of these GHG emissions are due to transport, which thus accounts for around 1200 to 2000 mega tonnes CO_2 eq. per year (Garnett, 2011). In the United Kingdom, external costs associated with food and agricultural transport, such as road maintenance, air pollution and noise, add up to £3,63 billion per year (Pretty et al., 2005).

A second issue that has arisen with the globalisation of the food system is the aggregation of the food supply source. Industrial agriculture tends to concentrate production and processing in the hands of a few multinationals. This enables them to supply uniform produce in bulk year around (Horrigan et al., 2002; Watkiss et al., 2005). However, this also drives out small scale producers and undermines rural communities (Horrigan et al., 2002). By buying at supermarkets, more money and thus power gets fuelled to these multinational corporations. In 2013 75% of all seeds were controlled by ten corporations, on top of that only four companies controlled trade in grains and soy (EcoNexus, 2013). This pressures small-medium enterprises to conform to their standards, since those that do not conform are pushed out of the market.

The third, and final issue that will be addressed here, is that globalisation of the food system led to a loss of social connection with food and farmer. Initially people used to do frequent shopping (on foot), at local shops (Watkiss et al., 2005) or local farms, got food delivered by local producers, such as milk, or used to produce small quantities of food themselves. Nowadays most people do their weekly shopping at large supermarkets out of town by car (Watkiss et al., 2005). This contributes to many not knowing where their food comes from, how it is produced or even how the raw ingredients look like.

1.2 Local food benefits

To address these issues of globalized food production, sometimes also called conventional or industrial agriculture, producers and consumers have started (re)localizing the food system. In local food systems food is produced near to the consumer. What is regarded as near differs per situation, but what all definitions have in common is the reduction of either the spatial or social distance between producers and consumers. Consuming more local foods can play a part in addressing all of the issues mentioned above. Firstly, since food is produced closer to the end-consumer, energy and pollution from storage and transport are reduced (Horrigan et al., 2002). One study even suggests that substituting individual car trips to the supermarket with vans delivering local food at home could lead to a reduction of vehicle-kilometres by at least 70% (Cairns, 2005).

Secondly, local foods can empower small-scale producers and rural communities. Local food systems have been found to support rural development and the local economy (Horrigan et al., 2002; Roininen, 2006). By cutting out the middle-men, farmers retain more of the profits generated through direct marketing strategies, plus their profits are more likely to stay within the community, supporting the local economy through multiplier effects (Horrigan et al., 2002; Sacks, 2002). Instead of money leaking away out of the local community to multinational companies, re-spending money locally is similar to new money flowing in. The impact of spending money locally multiplies every time someone in the community buys local instead of buying from multinational companies outside of the area (Sacks, 2002). Local food systems thus do not only improve the livelihoods of farmers, but generate economic benefits for the whole local community. A study showed that more jobs, local retail spending and local per capita income was generated by independent hog farmers than by larger corporate operations (Horrigan et al., 2002). On top of that local food products can attract tourists and with this generate even more economic benefits to the local community.

Finally, local foods help rebuild the relationship between consumers and producers that has been attenuated through globalisation. Through direct marketing consumers regain a closer connection with the producer and their food. In some forms of local food initiatives, such as Community-Supported Agriculture (CSA), consumers' opinions on modes of production are even taken into account (Horrigan et al., 2002). Local food systems also promote

community interaction, resulting in more vibrant communities with their own identities. In these communities people recapture and retain traditions, thereby reconnecting with their rural roots (Weatherell et al., 2003).

1.3 The acceptance of local food among Western consumers

These benefits are a few of the reasons why local food consumption has gained much interest over the past two decades. The British government has picked up promoting local food and direct sales as a reaction toward the EU commitment of developing a sustainable consumption 10-year plan (Chambers et al., 2007). Local food consumption in the USA in the form of direct-to-consumer sales doubled from $551 million in 1997 to $1.2 billion in 2007, nevertheless this still only accounts for 0.8% of all agricultural sales (Martinez et al., 2010). In the UK, a majority of the consumers state that they are interested in buying local, and supermarkets have increased their stock of local food products. However, only 6 to 10% of the Western consumers end up actually buying local food products on a regular basis (Weatherell et al., 2003).

1.4 Knowledge gap

So even though local foods have many benefits, only a small percentage of Western consumers consumes them daily or on a regular basis. Previous research has mainly focused on explaining this situation through focusing on the benefits consumers perceive local foods have and on the promotion of these benefits. Lately, more studies have also taken into account the perceived costs of buying local food. While this is an improvement, the focus of consumer studies should be on the underlying decision-making process of consumers, instead of solely on mapping the perceived benefits and costs of local food. A consumer behaviour theory that has emerged in the last years is Alphabet theory. Alphabet theory states that consumers' attitudes about (local) food determine their purchasing behaviour. Attitudes are formed through people's values, beliefs and norms and influenced by demographics, knowledge and context (Nie & Zepeda, 2011, Zepeda & Nie, 2012; Feldmann & Hamm, 2015). While, Alphabet theory has been applied to local and organic food consumption and has shown promising results, we believe it can still be improved further. We believe Alphabet theory has a few downfalls. Firstly, the focus of Alphabet theory is too general, it is used to investigate organic and local food consumption at the same time, we believe a more specific focus is needed. There is a great diversity in local food outlets, which has not been taken into account in previous studies. These different forms of selling local food can lead to different beliefs about local food and different attitudes towards it and with that different purchase behaviour. When only looking at local food in general, some of these relationships might be insignificant or inaccurate, adding multiple different outlet types of local food to the model might show new insights. Therefore, this study will look at and compare four different types of local food outlets to investigate their influence on the process of attitude formation and purchase behaviour. Secondly, the process is unlikely to be the same for all consumers and in all situations. While Alphabet theory acknowledges this by adding contextual factors and demographics, it does not take into account the effects of any further personal factors. Therefore, we would like to expand Alphabet theory by investigating several more personal factors as moderators that might influence the attitude formation and translation process.

1.5 Moderators of consumer behaviour

Classic moderators of the food choice process have been social class, income and education. These together with other demographics, such as age, gender, household composition, nationality and residency are often used for segmentation strategies. However, demographic factors have been found to have inferior explanatory value of local food choice compared to lifestyle or attitudinal factors (Cranfield et al., 2012; Warde, 1997). While demographics can still be useful as control variables, the main focus should lie on these attitudinal or lifestyle factors. One type of lifestyle that seems to be especially relevant in explaining the consumption of (local) food is the Food-Related-Lifestyle, which consists of people's shopping, cooking and consumption habits together with their desired product attributes and consequences (Grunert et al., 1993). One's Food-Related-Lifestyle can greatly affect which beliefs are found to be important and whether local food fits within one's lifestyle. Furthermore, consumers that are concerned about the earlier mentioned issues of the current food provisioning system; GHG-emissions, power of multinationals and disconnection with food and producer, are also likely to have other beliefs than those who show no concern about these issues. We assume they will put a higher emphasis on the benefits of local food related to these issues and thus will form more positive attitudes towards local food. Finally, context also plays a big role in explaining why consumers state they are interested in local foods, but hardly buy them in the end. One theory for the relatively low sales of local foods that is suggested is that many consumers support the principle of local foods, but in their daily life other pragmatic factors, such as convenience and accessibility, play a role as well, which prevent them from actually buying local products (Weatherell et al., 2003). Where Alphabet theory includes general contextual factors, either positive or negative, this study will focus on one specific contextual factor, namely the accessibility of local food.

To summarize, this study will investigate the decision-making process of consumers when confronted with various local food outlets. The focus will be on four types of local food outlets, investigating which beliefs are valued for each of them and how these translate into attitudes, purchase intentions and purchase behaviour. Furthermore, possible moderators of the process; "Food-Related-Lifestyle", "Concern about food provisioning" and "Accessibility Context"; will be studied to gain a fuller understanding of possible factors influencing the decision making process. Gaining knowledge on these contextual and personal factors has the potential to improve the market penetration of local foods as it allows local food outlets to remove possible barriers and tailor their message (Weatherell et al., 2003).

The aim of this research is therefore: To deepen our understanding of the consumers' decision-making process when confronted with local food outlets, by examining the role of beliefs, attitudes, purchase-intention, Food-Related-Lifestyle, concern about food provisioning and accessibility in determining local food purchase behaviour at four different local food outlets.

This leads to the following research questions:

General Research Question: Which factors influence consumers' decision making when confronted with different local food outlets?

The specific research questions related to this are:

SQ1: To what extent do attitudes about local food at the various outlet types find their basis in the valuation of beliefs about local food and outlet types?

SQ2: To what extent are attitudes towards local food at the various outlet types translated into purchase intention of local food at the different outlet types?

SQ3: To what extent do purchase intentions of local food at the various outlet types lead to purchase frequencies of local food at those outlet types?

SQ4: To what extent does concern about multinational power and the environmental effects of the current food provisioning system influence the valuation of beliefs and their translation into attitudes?

SQ5: To what extent do Food-Related-Lifestyle factors influence the valuation of beliefs and their translation into attitudes?

SQ6: To what extent does accessibility context inhibit or support the translation of attitudes into purchase intentions and of purchase intentions into purchase frequencies?

To provide a further background to these questions, chapter 2 will be an extensive literature research on the definitions of local food, the types of local food outlets and the perceived benefits and perceived barriers of local food in general. Chapter 3 will explain the elements of the conceptual model in detail. Chapter 4 will address the technical design, it illustrates the choice of research design and sample selection. Chapter 5 will describe the results of the current study. Chapter 6 provides the conclusion and chapter 7 the discussion of this study with recommendations for further research. Finally, chapter 8 states the references used in this study and chapter 9 depicts the appendix where a detailed description of the questionnaire design and data analyses can be found.

2. Literature review

2.1 What is local? Defining the concept of local foods

While there recently has been a lot of talk about local foods, local food chains and short chains, the concept of local remains inconclusive. Even though no formal definition of local foods exists and the concept is still not well-defined, three main trends of definitions can be distinguished.

The biggest school of thought focuses on reducing the spatial distance (in miles or kilometres) between producer and consumer (Eriksen, 2013). This definition concentrates on the concept of "food miles", which is commonly understood as "the distance that food travels from farm gate to consumer" (Edward-Jones *et al.*, 2008). The assumption is that when one reduces their food miles, one also reduces the amount of CO_2 emitted. This definition is mainly driven by concerns about the environmental impact of the global food system which transports food over great distances by plane, boat and heavy transport vehicles. In this case, local food is that which is consumed within a certain distance from where it is produced. In this definition, a radius around the place of production is often used

as a distance measure of what defines local. The width of this radius however greatly differs among producers, retailers, consumers, scholars and governments. Some studies define local foods as products that are produced and retailed within 30 to 40 miles from the home of the consumer (Edward-Jones et al., 2008; Trobe, 2001). The definition of 30 miles or 50 kilometres is most often used in Europe (Pearson, et al. 2011). In the USA the concept of local food is defined more widely. For instance, in the "Consolidated Farm and Rural Development Act" passed in the USA in 2008, local and regional foods are taken together and are defined as "(I) the locality or region in which the final product is marketed, so that the total distance that the product is transported is less than 400 miles (640 km) from the origin of the product; or "(II) the State in which the product is produced" (Martinez *et al.*, 2010). This definition shows that next to the radius as a distance measure, geographic or political boundaries are also used to define local foods. These definitions mention a specific region, county, province or state as comprising local (Dunne et al., 2011; Selfa & Qazi, 2005; Pirog, 2003; Pirog & Rasmussen, 2008; Trivette, 2015). Even though the US government limits local at a 400 mile distance and while studies find radii of 50 up to 400 miles, both scientific and popular understandings in the USA mostly consider food to be local when it is produced and consumed within a "100-mile (160km) radius" (Pirog & Rasmussen, 2008; Smith & MacKinnon, 2007; Stegelin, 2010; Trivette, 2015). So on average, the spatial distance or geographical proximity of local foods lays around 30 miles (50 km) in Europe, whereas it lies at 100 miles (160 km) in the USA. A reason for this might be that as the size of a country increases, so does the definition of "local", next to that culture might also play a role in shaping the geographical definitions of local food.

The second definition paradigm focuses on reducing the social distance between producer and consumer. In this case the connection between the producer and consumer is the focal point of what defines local food. This is sometimes also called the relational proximity, where proximity is explained by the market relationships between actors in the food chain (Eriksen, 2013). In this way food is local when producers and consumers are able to communicate directly and connect with each other. This connection can be seen in the way local food systems are commonly marketed. Local food systems often use direct marketing systems, such as farmers' markets, community supported agriculture (CSA) (Dunne et al., 2011) or other ways of cooperative dispersion (Feagan, 2007). In this way producers and consumers are in a certain social proximity to one another (Fonte, 2008) in which they can communicate with each other (Hand & Martinez, 2010) and are connected to the same place (Fonte, 2008). Through seeing local foods as a short or direct market system, producers are at the same time also the retailers, and in some cases also the processors, of their products. Due to this retailing role, consumers are more likely to have direct face-to-face contact with the producers. This face-to-face contact can be important to consumers, since in this way they can acquire information on the product's origin (Bosona & Gebresenbet, 2011). In this case, trust, authenticity, and supporting local farmers or the local economy is much more a driving force compared to the previous definition, which was more focused on environmental instead of social benefits.

A final definition focuses on products with a protected designation of origin (PDO) or a protected geographical indication (PGI). These products are produced, processed and prepared, or partly in case of PGI products, in a certain geographical area using certain production or processing techniques, however consumption does not have to take place in this region. These products are also sometimes called locality foods instead of local foods (Chambers et al., 2007), examples of this are Parma ham or Champagne. In this case the focus is more on the added value or quality the product gains or its authenticity, instead of closing the gap between producer and consumer. Especially this final aspect and the fact that consumption is not purposely intended to be proximate to production is why this report will not focus on PDO or PGI products when talking about local foods. Instead it will focus on the definitions of closing the social and spatial distance between producers and consumers.

Since local food is such a broad concept it cannot and should not be understood on one dimension alone (Dunne et al., 2011). Therefore, both the spatial and social dimension, in other research also referred to as "Local by Proximity" and "Local by Relationship" (Trivette, 2015) or "Local food as geographical proximity" and "Local food as relational proximity" (Eriksen, 2013) will be integrated in this research. Local food is thus food that is produced both socially and spatially close to the consumer. Therefore in this research local food will be defined as "Foods that are (I) consumed within 30 miles (50 km) or within the same province as they are produced and (II) that provide consumers with the possibility to communicate with the producer".

In the next chapter the two dimensions of spatial and social distance will be used to divide different local food product provisioning channels.

2.2 Local food outlets

Now that the definition of local food has been specified, a closer look can be taken at different types of outlets or venues that sell local food products. There are many ways of selling local food, these include: farm shops, roadside stands, collective selling outlets, farmers' markets, pick-your-own farms, community supported agriculture, food

boxes, vending machines, health food shops and supermarkets. In this subchapter a brief explanation of the different types of local food outlets will be given after which four will be selected as the x-variable of the model.

2.2.1. Types of local food outlets

The most traditional type of local food outlet is on-site retailing at the farm, which includes roadside stands, farm shops and collective selling outlets. These are all ways to sell local food at the farm, the difference between these outlets are the degree of temporality and the amount of produce offered. Roadside stands are temporary stands that sell seasonal produce, such as cherries, strawberries or asparagus. When these stands are permanently present at the farm they are called farm shops (Govindasamy & Nayga, 1997). A difference between roadside stands and farm shops is that whereas the roadside stands are often literally alongside a road, farm shops are often inside the farmhouse or the greenhouse. On top of that whereas roadside stands and farm shops only sell produce from their own farm, collective selling outlets sell produce from multiple farms at one large farm shop (Italian NRN, 2011).

Producers can however, also decide to sell their produce at other venues than the farm. One way that is increasingly becoming popular are farmers' markets. In the USA farmers' markets rose from 1.755 in 1994 to 2.756 in 1998 up to 5.274 in 2009 (Martinez et al., 2010). Farmers' markets are quite similar to "conventional fruit and vegetables markets", however at farmers' markets only the producers themselves are allowed to sell their produce, whereas at "conventional markets" it are often wholesalers that are selling the produce (Italian NRN, 2011).

Another way of selling local food products is one in which the economic transaction of producer to consumer is pushed more to the background. At a pick-your-own (PYO) farm, consumers are free to harvest their own produce from the fields (Govindasamy & Nayga, 1997). The harvested produce is then weighed by the farmer or an employee and the consumer pays for the amount of vegetables he has harvested (Eten per Meter, 2012; Pluk & Plenty, 2012). A similar concept to PYO is community supported agriculture (CSA). Just like farmers' markets, there has been a great increase in CSA organizations. In the USA they rose from only 2 in 1986, to 400 in 2001 up to an estimated 1.400 in 2010 (Martinez et al., 2010). Just like at PYOs, at CSAs consumers buy directly from the farm and often harvest the produce themselves. Depending on the farm, consumers either harvest their own produce (De Nieuwe Ronde, 2011) or pick up a vegetable bag at the farm (Amelis Hof, 2015; De Oosterwaarde, 2013). The difference between a PYO and CSA is that at a CSA instead of paying for the produce on site, consumers pay for a yearly subscription. This yearly subscription financially supports the farmers at the beginning of the season, making sure they have the financial means to buy new seed stocks. It also ensures farmers of a steady income in the case of crop failure due to unexpected weather conditions. Through this subscription consumers become members of the farm association. What characterizes CSAs are their transparency and participatory attitude. Consumers are informed about the farm's policies, production methods and pricing and are encouraged to take part in decision making. On top of that many CSAs organise activities at the farm. Depending on the CSA, harvesting times are more flexible than at PYO farms.

Another recent way of selling local food are food boxes. Food boxes are commonly ordered online through flexible subscriptions. Food boxes can be broadly categorized into two domains, they can either be a pre-packaged box with ingredients and recipes for a certain amount of days or dinners, usually three, (Beebox, n.d.a.; De Krat, 2015; Streekbox, n.d.) or they can be an online shop where consumers assemble their own food box (Goei Eete, 2015a; Rechtstreex, n.d.a.; Willem&Drees, n.d.a.). In the case of the latter, the website works similar to those of supermarkets where products can be ordered online. Depending on the scheme, the boxes are either delivered at the consumer's home or have to be picked up at a predetermined place and time. Pick-up and delivery times are somewhat flexible, usually the consumer can decide between two days and has a range of about four hours for pick-up and delivery. Another factor that differs per box scheme is the locality of the produce, whereas some only source local products (Goei Eete, 2015b; Rechtstreex, n.d.b.) others sell nationally produced produce (Beebox, n.d.b.; De Krat, 2015; Streekbox, n.d.; Willem&Drees, n.d.b.). Direct social contact with the farmer is limited, since deliveries and pick-up stations are usually staffed by employees. However, the websites are usually very transparent about the production source and producers can often be contacted by consumers through the websites if they wish to do so.

A less typical local food outlet are vending machines. These vending machines can be placed at convenient locations for consumers, nudging them into buying local (Italian NRN, 2011). While vending machines are convenient and time-saving, they can impossibly provide consumers with their weekly shopping. Instead these vending machines can make it more easy to snack locally, for instance by placing them at train stations. A unique system that combines the idea of vending machines and local food boxes is the self-service fridge container of "Veld & Beek". This local food initiative has refrigerated containers in several villages close to their farm. These containers serve as little shops, displaying vegetables, dairy and meat. Members of the scheme get a key to open the container. In this way members can shop on a time that is convenient for them. The initiative is based on trust, as members have to check on the product list what they have taken. Members pay for the products at the end of each month (BioJournaal, 2016). So

even though direct contact with the farmer is limited, consumers still feel part of a community of local food consumers.

Finally, local food products can be bought through health food shops and supermarkets. Health food shops are small to medium sized shops that sell an arrangement of eco-friendly products, varying from food to household products. Health food shops are similar to supermarkets, however they have a greater focus on ecological products and often a lower variety of products. The benefit of health food shops though is that consumers have to spend less time finding trustworthy eco-friendly products and that the staff is usually knowledgeable about the products that are offered. The benefits of supermarkets on the other hand, are that they are often easily accessible and that they have a high variety within and between products. Supermarkets are especially convenient for consumers who want to spend as little time as possible on grocery shopping as not only staple foods, but also specialty products and processed foods can be purchased at supermarkets. The downfall of shopping for local food at a supermarket is the absence of social contact with the producer, however product packaging or marketing can provide some degree of connectedness between consumer and producer.

2.2.2. Selection of types of local food outlets

Now that each local food outlet has been described, a further distinction between the outlets can be made. While it can be assumed that consumers make specific inferences about local food benefits or costs for each local food outlet, some outlets might have similar characteristics and therefore create similar inferences. It is therefore useful to group these outlets together based on traits that are typical for local food outlets. As mentioned in sub-chapter 2.1, both social and spatial proximity are of importance when defining local foods. Therefore, when distinguishing between the local food outlets these factors should be taken into account. As mentioned in the definition, for food to be considered local, spatial proximity should be within a range of 30 miles (50km) or within the province. Since, all the outlets have to meet this criterion for their food to be considered local, the outlets cannot be differentiated based on the general concept of spatial distance. Even though all outlets should be within this 30 mile (50km) radius to be considered local, some outlets will generally be more proximate to consumers' homes than others. For instance, those who live in urban areas will likely have a supermarket within 5 minutes from their home, whereas a Community-Supported-Agriculture (CSA) farm might be a 15 to 30 minutes' drive away. Whereas those living in rural areas will likely have several farm shops or CSAs nearby. Since most people live in cities, the focus will lie on urban residency when making distinctions between the spatial distance of the outlets. To approach the notion of spatial distance, the concept of time consumption will be used. The degree of time consumption is the amount of time the consumer needs to do their daily shopping at the specific local food outlet and will include the driving distance to the outlet and the shopping time at the outlet. The driving distance to the outlet is comprised of the estimated time it would take to drive to the outlet from an average urban residency. The shopping time is the time it takes to acquire the desired products, which includes possible harvesting or extra time needed to visit multiple shops to acquire all of the daily shopping, such as dairy, meat and grain products. In this way outlets that have a limited variety of products will lead to relatively higher shopping times than outlets who have all desired products in stock.

When looking at the shopping time based on the variety of products a venue offers; roadside stands and vending machines have the most limiting variety and will therefore be the most time consuming outlets to visit. CSAs, PYOs and farm shops already have a greater variety of vegetables and fruits, however they do not sell any other products, such as dairy or meat. On top of at that many PYOs and CSAs produce has to be harvested by the consumer itself, further increasing the "shopping" time. Health food shops, farmers' markets and collective selling outlets also have a great variety of fruits and vegetables, but often also sell products such as bread, snacks, juices and spreads and thus have a higher product variety and lower need to visit other stores, which lowers their time consumption. The two outlets that offer the greatest variety of products and thus have the lowest degree of shopping time consumption are food boxes and supermarkets.

The driving distance is more difficult to estimate, especially since these distances differ depending on the area where one lives. Since most people live in urban areas, driving distances will be estimated based on urban residency. Based on this, it can safely assumed that supermarkets are the most prominent and closely available and CSAs, PYOs, roadside stands, farm shops and collective selling outlets are the furthest away. It is assumed that vending machines, food boxes, farmers' markets and health food shops fall somewhere in between.

When combining both the shopping and driving times, CSAs and PYOs are found to have the highest degree of time consumption. Roadside stands and vending machines also have a high degree of time consumption. Outlets that are found to have a medium degree of time consumption are farm shops, health food shops, farmer's markets and collective selling outlets. Supermarkets and food boxes are the least time consuming outlets.

Apart from the degree of time consumption, the types of local food outlets can be separated based on their social proximity or degree of social contact. The degree of social contact can be seen as a continuum, ranging from low to

high. A low degree of social contact between producer and consumer is when there is no contact at all or only indirect contact through product packaging and marketing. This is the case at vending machines and supermarkets. Social contact increases when there is more contact possible between consumer and producer, for instance through intermediaries or online contact, which can be the case at health food shops and food boxes. Direct face-to-face contact between producer and consumer would be considered to have medium to high degree of social contact. In this case, the frequency of the interaction between the same producer and consumer determinates whether the social contact is considered to be medium or high. The frequency of interaction, and therefore the degree of social contact, is likely the highest at community supported agriculture and pick-your-own farms, especially through the subscription system of CSAs. Frequency of interaction is assumed to be similar among farm shops, farmers' markets and collective selling outlets, the difference being that it might be more likely to have repeated contact with the same producer at a farm shop than at a farmers' market or a collective selling outlet with multiple employees. Overall these outlets are rated to have a medium-high degree of social contact.

As an overview of the previous paragraphs, the local food outlets have been mapped based on their given degree of social contact and time-consumption and are depicted in Figure 1.
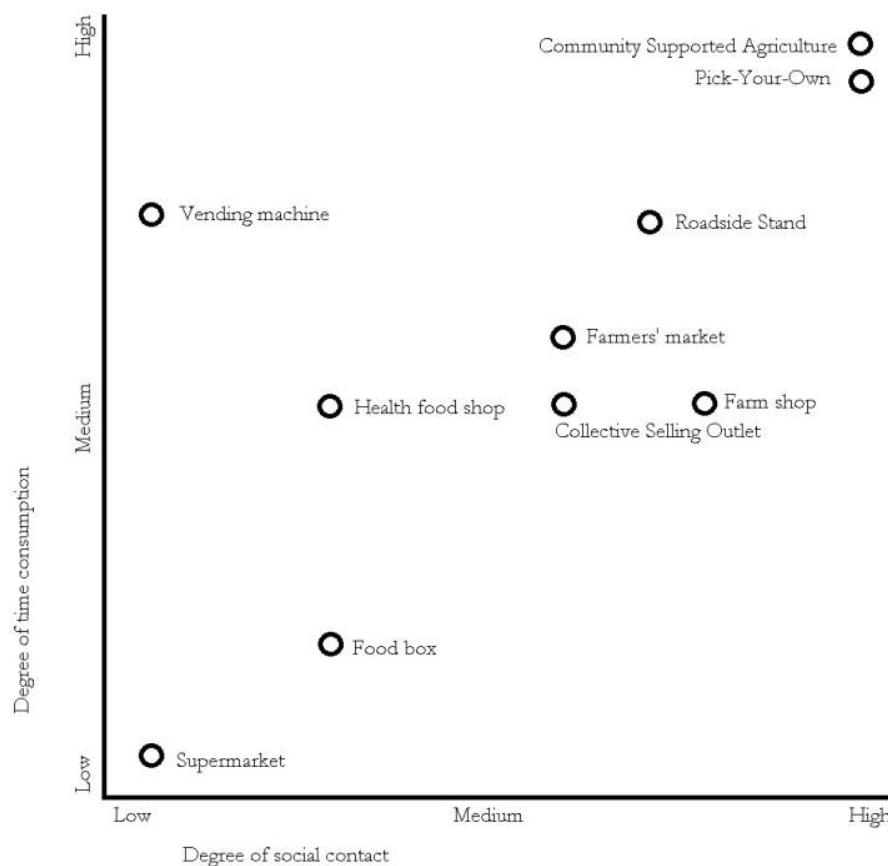
Figure 1: Local food outlet types mapped based on degree of time consumption and social contact.

As can be seen from figure 1, some correlation seems to exist between the degree of social contact and time-consumption. As the amount of social contact increases, so does time-consumption. An explanation for this would be that social interactions require time. Furthermore, the outlets that have a higher degree of social interaction are also often further located from urban areas. If social contact and time-consumption are indeed correlated, this would mean that consumers must make a trade-off between the social benefits or the time benefits of the local food outlet types. Their attitude and purchase intention towards one of the outlet types would then be guided by their preference for either social interaction or time-saving. To test whether social contact and time consumption indeed play a role in the decision-making process, four of the local food outlet types will be chosen based on their levels of social contact and time-consumption. The two outliers in which the trade-off will be most clearly visible will be included; the supermarket and Community Supported Agriculture farm. Next to that, two intermediary outlets will be included. The choice was made to include health food shops and farm shops, since these are two common and well-known types of local food outlets in the Netherlands.

2.3 Perceived benefits of local

Even though this research focuses on four specific local food outlets, this chapter will further explore the perceived benefits and costs consumers subscribe to local foods in general. The reason for this being that most studies focus on local food in general and data on the perceived benefits and costs of the specific types of local food outlets has been limited so far.

In the last decade, many studies have looked at which reasons consumers have for purchasing local or at the benefits consumers perceive local foods have. Table 1 lists all perceived benefits found from 33 studies, behind each perceived benefit are the studies in which this perceived benefit was found to be associated with local foods. The number of studies in which the benefit was found is depicted between brackets.

Table 1: Overview of perceived benefits of local food from 33 studies. Behind each perceived benefit are the number of studies in which this benefit was mentioned.

Perceived benefit	Studies
Freshness (24)	(Brown, 2003); (Chambers, Lobb, Butler, Harvey & Traill, 2007); (Darby, Batte, Ernst & Roe, 2008); (Feagan, Morris & Krung, 2004); (Food Marketing Institute, 2009); (Govindasamy, Italia & Adelaja, 2002); (Holloway & Kneafsey, 2000); (IGD, 2012); (Italian NRN, 2011); (Keeling-Bond, Thilmany & Bond 2009); (Kezis, Toensmeyer, King, Jack, & Kerr, 1984); (Kezis, Gwebu, Peavey, & Cheng, 1998); (Kolodinsky & Pelch, 1997); (Onozaka, Nurse & McFadden, 2010); (Patterson, Olofsson, Richards, & Sass 1999); (Pirog, 2003); (Pirog, 2004); (Roininen, Arvola, & Lähteenmäki, 2006); (Selfa & Qazi, 2005); (USDA, 2010); (Winter, 2003); (Wolf, 1997); (Wolf, Spittler & Ahern, 2005); (Zepeda & Deal, 2009)
Supporting farmers / Supporting the local economy (23)	(Brown, 2003); (Chambers et al., 2007); (Darby et al., 2008); (Feagan et al., 2004); (Food Marketing Institute, 2009); (Gallons et al., 1997); (Govindasamy, et al., 2002); (Holloway & Kneafsey, 2000); (Hunt, 2007); (IGD, 2012), Keeling-Bond et al., 2006); (Kezis et al., 1998); (Kolodinsky & Pelch, 1997); (Morris & Buller, 2003); (Onozaka et al., 2010); (Pirog, 2003); (Pirog, 2004); (Roininen et al., 2006); (Stephenson & Lev, 2004); (USDA, 2010); (Winter, 2003); (Zepeda & Leviten-Reid, 2004); (Zepeda & Deal, 2009)
Quality (18)	(Brown, 2003); (Chambers et al., 2007); (Govindasamy, et al., 2002); (Holloway & Kneafsey, 2000); (Italian NRN, 2011); (Keeling-Bond et al., 2009); (Kezis et al., 1984); (Kezis et al., 1998); (Kolodinsky & Pelch, 1997); (Onozaka et al., 2010); (Pirog, 2003); (Pirog, 2004), (Roininen et al., 2006); (Stephenson & Lev, 2004); (USDA, 2010); (Winter, 2003); (Wolf, 1997); (Wolf et al., 2005)
Food safety (10)	(Brown, 2003); (Feagan et al., 2004); (Holloway & Kneafsey, 2000); (Onozaka et al., 2010), (Patterson et al., 1999); (Pirog, 2003); (Pirog, 2004); (Selfa & Qazi, 2005); (Stephenson & Lev, 2004); (Zepeda & Leviten-Reid, 2004)
Taste (9)	(Brown, 2003); (Chambers et al., 2007); (Feagan et al., 2004); (Holloway & Kneafsey, 2000); (Patterson et al., 1999); (Pirog, 2003); (Pirog, 2004); (Selfa & Qazi, 2005); (Winter, 2003)
Relationship with farmer / rural roots (8)	(Brown, 2003); (Govindasamy, et al., 2002); (Hunt, 2007); (Kezis et al., 1998); (Kolodinsky & Pelch, 1997); (Marsden, Banks & Bristow, 2000); (Thompson & Coskuner-Balli, 2007); (Zepeda & Leviten-Reid, 2004)
Environmental sustainability (6)	(Darby et al., 2008); (IGD, 2012); (Italian NRN, 2011); (Pirog, 2003); (Pirog, 2004); (Zepeda & Leviten-Reid, 2004)
Trustworthiness / transparency (6) / knowing the source	(Food Marketing Institute, 2009); (Roininen et al., 2006); (Winter, 2003); (WRR, 2014); (Zepeda & Leviten-Reid, 2004); (Zepeda & Deal, 2009)
Short transport distance (4)	(Chambers et al., 2007); (Roininen et al., 2006); (Zepeda & Leviten-Reid, 2004); (Zepeda & Deal, 2009)
Value-for-money (4)	(Brown, 2003); (Kezis et al., 1984); (Wolf, 1997); (Wolf et al., 2005)
Anti-corporate (3)	(Holloway & Kneafsey, 2000); (WRR, 2014); (Zepeda & Deal, 2009)
Health (3)	(Pirog, 2003); (Pirog, 2004); (Zepeda & Leviten-Reid, 2004)
Entertainment (2)	(Stephenson & Lev, 2004); (Zepeda & Leviten-Reid, 2004)
Animal well-being (1)	(Roininen et al., 2006)
Authenticity (1)	(Boyle, 2003)
Seasonality (1)	(Chambers et al., 2007)

As this table points out most consumers perceived freshness (24 times), supporting farmers or the local economy in general (23 times) and quality (18 times) as the most important benefits of local food. Food safety (10), taste (9) and

a relationship with the farmer or rural roots (8) also seem to play an important role. Benefits that were mentioned less often were environmental sustainability (6), trustworthiness or transparency (6), short transport distance (4), value-for-money (4), anti-corporate (3), health (3), entertainment (2), animal well-being (1), authenticity (1) and seasonality (1). These benefits thus seem to be of lesser importance among the public and are more likely to be valued by smaller groups of people.

The reason why certain perceived benefits are more linked to local foods or are found to be more important by a larger group of consumers can be explained by Pirog's (2003; 2004) idea of core attributes. As Pirog (2003; 2004) mentions in his research the core attributes of a product are its freshness, taste, quality and price. Secondary benefits are to support the local economy or local farmers, which together with food security and environmental and health concerns are of less importance and were only mentioned by less than 5% of the participants as the first choice of buying local. Zepeda and Leviten-Reid (2004) also mention freshness and quality as primary reasons for buying local food at a farmers' market. It might be that some attributes are perceived to be the core of local food, whereas others are more loosely connected to local food in general. Whereas these attributes might not belong to the core attributes of local food in general, they might belong to the core attributes of one of the local food outlets. For instance factors such as food safety, relationship with the farmer, anti-corporate and entertainment might be core attributes of outlets that score high on social contact, whereas these factors might be less related or important for outlets that score low on time consumption.

2.4 Perceived costs of local food

While there has been quite some research on the perceived benefits of local food, research on the perceived costs of local food have been limited so far. This might be due to the fact that marketing strategies prefer to focus on emphasizing the benefits of purchasing local food instead of downplaying the costs or because most perceived costs are found to be quite straightforward. The perceived costs of purchasing local food are time (Chambers et al., 2007; McEachern, Warnaby, Carrigan & Szmigin, 2010; Pirog, 2003), availability, variety (Chambers et al., 2007; Onozaka et al., 2010), price (Chambers et al., 2007; Italian NRN, 2011; McEachern et al., 2010; Roininen et al., 2006; Zepeda & Leviten-Reid, 2004) and inconvenience or opportunity (Chambers et al., 2007; Tregear & Ness, 2005; WRR, 2014). However, others found price (Cranfield, Henson & Blandon, 2012; Tregear & Ness, 2005) and convenience (Cranfield, Henson & Blandon, 2012) to be insignificant predictors of local food purchase intention.

The study that has focused the most on both the perceived benefits and the perceived costs of buying local foods was the study by Chambers et al. (2007). In their study, they found six themes of which price, lifestyle and choice reflected the main costs. Local food was generally perceived to be more expensive and while participants noted that shopping for local foods could be an enjoyable experience, buying locally on a routine basis would not fit in their lifestyle due to lack of time and opportunity. Some participants referenced to past times in which shopping was more seen as a leisure activity and where the accessibility of local foods was greater. The final perceived cost of buying local food was the limited amount of choice or variety. When shopping locally, only products that are in season can be consumed, limiting the choice for consumers. As a consequence, certain fruit varieties that are non-native to the area, such as bananas or mangos, cannot be consumed anymore. On top of that variety within produce, such as the amount of apple species, is also more restricted. As consumers said they valued year around choice and variety, a characteristic of imported foods, the limited choice of local foods will definitely remain a barrier. Since supermarkets are offering most foods year around, (Western) consumers got used to availability, convenience and low priced products that supermarkets offer. Buying local foods only, will require a dramatic change of these fixed habits and people's food culture (WRR, 2014). Offering a wide range of products at accessible retail points, especially for urban residents, is thus crucial for promoting local food consumption (Italian NRN, 2011).

Some costs of buying local foods are not related to local foods themselves, but to the outlet instead. Perceived costs of purchasing local food at a Community-Supported-Agriculture (CSA) farm included a limited selection to choose from, the amount of food provided and wasted, the incorporation of unfamiliar and undesirable vegetables, transportation to the farm and inconvenience of pick-up time or place. At this CSA boxes had to be picked up at a fixed place and time each week, limiting the much desired freedom of some participants. As entertainment or personal interaction were reasons for buying local for some participants, picking up vegetables at an unattended pick-up point did not satisfy these needs (Zepeda & Leviten-Reid, 2004).

Another typical local food outlet are farmers' markets. Just as at a CSA farm, there are specific perceived costs associated with buying local food at a farmers' market, such as transportation distance from home to market, availability of similar quality produce at more convenient locations and high product prices (Eastwood, 1996; Eastwood, Brooker & Gray, 1999). Similar costs were mentioned by farmers' market shoppers at 21 New Jersey markets. Reasons for them to not visit the farmers' market were again transportation distance and inconvenience, but also the lack of knowledge of the location of the farmers' market (Govindasamy et al., 1998). Next to price, the

inconvenience of not having a "one-stop shop" and its implications for time use were the most important costs of shopping at a farmers' market (McEachern et al., 2010).

A possible solution to lower the inconvenience and effort that consumers have to put in their shopping is to sell local foods online. A common way of doing this is through a subscription on food boxes. Depending on the scheme consumers can decide what they want in their box. The box gets delivered to their home. A possible perceived cost however, is that selling online can break the envisioned contact between producer and consumer (European Network for Rural Development, 2012). The same holds for selling local foods in supermarkets, it reduces the inconvenience and time needed for shopping, but it also reduces the social contact between producer and consumer.

This study will look at which benefits and which costs consumers' believe are associated with local food consumption and will investigate which ones are linked specifically to one, or more, of the local food outlets.

3. Conceptual model

3.1 Consumer behaviour theories

While consumers have many reasons for buying or not buying local food, these perceptions of the benefits and costs of local food have to be put in a broader theoretical framework to gain a deeper understanding of consumer behaviour. Traditional consumer behaviour theories, such as the theory of reasoned action and planned behaviour have focused on beliefs, attitudes, norms, perceived control, purchase intention and behaviour (Ajzen, 1991). These factors are further explained in newer theories such as Value-Belief-Norm (VBN) theory (Stern, 2000) and Attitude-Behaviour-Context (ABC) theory (Guagnano, Stern & Dietz, 1995). In this chapter these theories will be explored and a newly developed theory, that tries to integrate these theories in order to explain local food purchasing behaviour, will be investigated.

Stern (2000) developed the Value-Belief-Norm (VBN) theory in order to explain activist and non-activist environmental behaviour, such as environmental group membership, recycling, buying organic or promoting energy efficiency at work (Zepeda & Deal, 2009). The theory links value theory with norm-activation theory and the New Ecological Paradigm (NEP). According to VBN theory underlying biospheric, altruistic and egoistic values determine a person's ecological worldview (NEP), which in turn affects beliefs about perceived adverse consequences to valued people, species or things (AC) and ascribed responsibility (AR) of alleviating these threats. Together these beliefs activate pro-environmental personal norms which influence activist and non-activist pro-environmental behaviour (Stern, 2000). Even though VBN theory was meant to explain environmental behaviour, it explained less than 20% of the variation in private-sphere environmental behaviour, such as local food consumption. Zepeda and Deal (2009) ascribe this low explanatory value to the strong influence of external contextual factors on behaviour and conclude that VBN theory could instead be better used to explain attitude formation and propose the use Guagnano et al.'s (1995) ABC theory for explaining the link between attitudes and environmental behaviour.

Attitude-Behaviour-Context (ABC) theory is based on means-end chain theory and poses that consumers make decisions based on the functional and psychological benefits they expect to gain from a behaviour (Eide & Toft, 2013 – Feldmann & Hamm, 2015). In this way, ABC theory explains how attitudes can lead to behaviour (Zepeda & Deal, 2009; Feldmann &Hamm, 2015). The model combines intrinsic factors, with external factors, since according to ABC theory behaviour (B) is driven through both attitudes (A), the intrinsic factors, and external conditions or contextual factors (C), the external factors. Contextual factors include all supportive or hindering conditions, be it financial, legal, physical or social, such as availability, price differential, policies and regulations and societal trends (Feldmann & Hamm, 2015; Guagnano, Stern & Dietz, 1995; Zepeda & Deal, 2009). Under conditions where context is neutral, attitudes drive behaviour, where positive attitudes lead to performance of the behaviour and negative attitudes lead to omitting the behaviour. However, when a negative context is present, for instance when the behaviour is expensive or inconvenient to perform, this affects the link between attitudes and behaviour, where the negative context can override the positive attitudes. Only when attitudes are strong enough, can they override the effect of context (Zepeda & Deal, 2009). This interaction between attitudes and context means that "Behaviour is present whenever A+C>0 and missing when A+C<0." (Guagnano, Stern & Dietz, 1995).

In the classical ABC model attitudes about the behaviour affect the execution of the behaviour and context acts as a moderator on this relationship (Guagnano, Stern & Dietz, 1995). Newer studies focusing on private sphere environmental behaviour have added another component, namely purchase intention (Saba & Messina, 2003; Bamber & Möser, 2007). This component is derived from the classical Theory of Planned Behaviour (Ajzen, 1991). These studies stress that purchase intention acts as a mediator between attitudes and behaviour and that the addition

of a purchase intention component significantly improves the model (Saba & Messina, 2003; Bamber & Möser, 2007). In this way positive attitudes about organic and local food lead to a positive purchase intention of these foods, however context determines whether these intentions are translated into the actual purchase behaviour, as a negative context limits consumers' capacity to fulfil their intentions (Nie & Zepeda, 2011; Zepeda & Nie, 2012).

A new theory builds further on Value-Belief-Norm (VBN) theory and Attitude-Behaviour-Context (ABC) theory to explain environmental behaviour is Alphabet Theory (Zepeda & Deal, 2009). According to Alphabet theory, VBN theory is useful for explaining attitude formation, whereas ABC theory is valuable for explaining the translation from attitudes into behaviour. Additionally, it proposes four new components; information seeking (IS), knowledge (K), habits (H) and demographic factors (D) to further increase the explanatory power of the model. Figure 2 shows the relationships of this newly developed model (Zepeda & Deal, 2009).
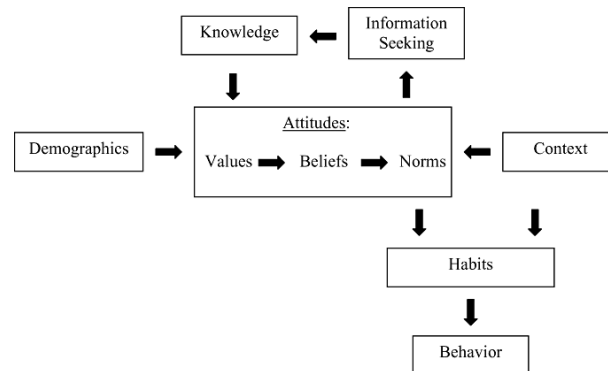

Figure 2: Alphabet theory (Zepeda & Deal, 2009).

Zepeda and Deal (2009) added information seeking and knowledge about the environmental behaviour to assess their effects on attitude formation. The assumption is that those who seek more information and have more knowledge about a specific environmental behaviour and its benefits are more likely to have a positive attitude towards that behaviour. Their research confirmed this assumption, as conventional shoppers could provide little reasons why someone would buy organic, where frequent organic purchasers knew more about its benefits and could therefore justify the higher prices for themselves. Conventional shoppers did not actively search for information on food production issues and organic food production, instead most got new information through friends or family. The adoption of this new information however is likely prevented when it clashes with their current VBN system. Frequent organic purchasers on the other hand were significantly more active in searching for information about organic food, further confirming their already existent value-belief-norm systems. In this way VBN motivates information seeking, which leads to heightened knowledge and to the shaping of new attitudes or to a reinforcement of existing attitudes (Feldmann & Hamm, 2015; Zepeda & Deal, 2009).

On top of that Alphabet theory adds habits as a mediator in ABC theory. Habits as a behaviour are formed through attitudes and context, but they are also able to influence other behaviour. Interviews showed that habits were an important factor in food decision making. For instance, dietary restrictions or cooking habits greatly influence which foods or types of food are purchased. Those that followed a vegetarian or vegan diet significantly purchased more organic food, where conventional shoppers that hardly purchased any organic food were all meat-eaters (Zepeda & Deal, 2009). Cooking habits, such as cooking from scratch or seeing cooking as a task that's best over and done with can also greatly influence how attitudes are translated into behaviour.

As a final factor; Alphabet theory adds demographic data as a proxy for and possible influencer of attitudes.

This research builds on the inclusion of VBN theory and ABC theory in Alphabet theory. However, with quite a few changes. Firstly, demographics are omitted as explanatory factors, since these have been found to have inferior explanatory value compared to lifestyle or attitudinal factors (Cranfield et al., 2012; Warde, 1997).

Secondly, habits will also be excluded, since other research showed that this was an insignificant predictor of local food consumption (Feldmann & Hamm, 2015). Instead of having habits as a mediator between attitudes, context and behaviour, purchase intention will be added as a mediator between attitudes and behaviour. Since research showed that the majority of consumers have positive attitudes towards buying local food, but only 6 to 10% actually buy local food regularly, there seems to be an attitude-behaviour gap (Weatherell et al., 2003). The addition of purchase intention, a common factor in research on private sphere purchasing behaviour, might be able to narrow this attitude-behaviour gap. Research on organic vegetable and fruit consumption found a significant relationship between attitudes and purchase intention and between purchase intention and behaviour (Saba & Messina, 2003). Since organic and local food consumption are closely related to each other, it is likely that they have the same

underlying processes. By adding purchase intention to the model, it can be assessed where context has the greatest moderating effect, be it on the attitude-purchase intention relationship, on the purchase intention-behaviour relationship or in case of insignificant results, on the attitude-behaviour relationship. In this way, multiple places where the attitude-behaviour gap might occur can be assessed. Also, by measuring purchase intention and purchase behaviour in the form of purchase frequency, a distinction can be made between prospective buyers and current buyers.

Thirdly, a simplified version of the VBN-model will be used, by only including beliefs about local food and the respective outlets. Instead of measuring values, which are measured by an extensive list of items, the decision was made to include Food-Related-Lifestyle (FRL) instead. Even though, lifestyle is not the same as values, the factors are closely related to each other. FRL acts as an intermediary, linking values to beliefs or attitudes (Grunert, Brunso & Bisp, 1993). FRL consist of many factors, as will be explained in the next sub-chapter, which focus on beliefs and underlying values that are closely related to this research. Since FRL is more relevant to this research than the standard Values And Life-Styles (VALS) instrument, a few of the FRL dimensions will be selected as moderators of the beliefs-attitude relationship. Norms will be totally excluded from the research in order to provide a more simplified model and since norms are quite difficult for marketers to influence and change through brief campaigns.

Finally, information seeking and knowledge will also be excluded from the model and will instead be replaced with a factor that is similar but more specific to this research, namely concern about food provisioning. Somewhat similar to the information seeking and knowledge factors from Alphabet theory, concern about food provisioning is likely fuelled by information seeking and knowledge about the effects of the current food provisioning system. Where those who seek more information and have higher knowledge about the current state of the food system and its issues are likely to be more concerned about those issues. Just like information seeking and knowledge in Alphabet theory, concern about food provisioning is assumed to influence attitude formation (Gil, Gracia & Sanchez, 2000). However, instead of directly affecting attitudes, like information seeking and knowledge do, concern about food provisioning influences the relationship between beliefs and attitudes by affecting the values given to certain beliefs and thereby influencing attitude formation (Weatherell, Tregear & Allinson, 2003).

These changes result in the following conceptual framework and hypotheses
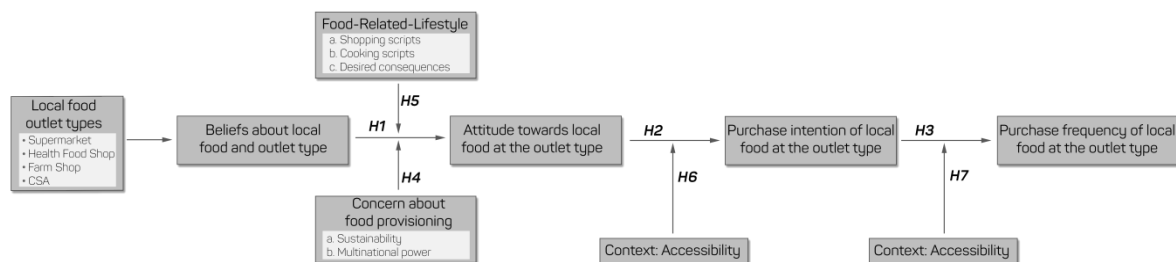
Figure 3: Model based on Attitude-Behaviour-Context (ABC) theory, Value-Belief-Norm (VBN) theory and Alphabet theory. Process on how consumers make local food purchasing decisions.

H1: Attitudes towards local food at food outlets find their basis in beliefs about local food and food outlet types, where high valuation of positive benefit beliefs and low valuation of negative cost beliefs lead to positive attitudes.
H2: Attitude toward local food at an outlet type leads to purchase intention of local food at an outlet, where a positive attitude leads to a positive purchase intention.
H3: Purchase intention of local food at an outlet type leads to purchase behaviour of local food at the outlet type, where a high positive purchase intention leads to a high purchase frequency.

In the next chapter the chosen moderators; concern about food provisioning, Food-Related Lifestyle (FRL) and the selected contextual factors; will be explained in more detail.

3.2 Concern about food provisioning

In recent years, consumer research has started to focus on a new type of consumer, one that is actively interested in socio-economic issues. Different names for these kind of consumers are the citizen consumer, the ethical consumer (Szmigin, Maddock, & Carrigan, 2003), the conscious consumer (McEachern et al., 2010), or the concerned consumer (Feldmann & Hamm, 2015), they are also referred to as alternative shoppers (Zepeda, & Leviten-Reid, 2004) or consumers interested in sustainable consumption (Megicks, Memery, & Angell, 2012). This group of concerned consumers seems to especially be on the rise in developed countries. They are actively interested in the food system and have a profound awareness and concern about current conventional agricultural practices and their

impact on the wellbeing of the environment, society and/or animals. They express their concerns about food provisioning through their ethical shopping behaviour (Pelsmacker, Driesen & Rayp, 2005), driving them to alternative ways of food provisioning, such as local foods (Marsden et al., 2000; Hinrichs, 2000; Gilg and Battershill, 1998 – Weatherell, Tregear & Allinson, 2003) or organic foods (Torjusen et al., 2001 – Weatherell et al., 2003).

This study will take into account these so-called concerned consumers and will investigate the effect concern about the current way of food provisioning has on the decision making process. Concern about food provisioning will be split up into two dimensions. The first dimension will focus on concern about the environmental sustainability of the current system, whereas the second dimension will focus on concern about the power of multinationals in the food system, as both of these factors were found to be drivers of local food consumption (Horrigan et al., 2002; Roininen, 2006).

One study (Nie & Zepeda, 2011) on organic food consumption considered concern about the environment in general, instead of concern about the environmental effects of food provisioning specifically. Concern about the environment included concern about animal welfare, energy and resource conservation, water contamination, wildlife preservation and personal or family health problems due to pollution. Although these were not specifically linked to the food system, due to the nature of the questionnaire it was implied that they were connected. Results showed that different segments of consumers had varying levels of concern about the environment. Here it was seen that as environmental concern increased so did the frequency of buying organic food (Nie & Zepeda, 2011). Another study also found a relationship between attitudes towards organic food products and concern about the environment (Gil, Gracia & Sanchez, 2000). Those who were most concerned about the environment were the most active organic food shoppers, they valued healthiness, food safety and freshness and did not value convenience. Those that were somewhat less concerned valued taste and healthiness, they did not value convenience or brand. Those that were quite unconcerned valued convenience, freshness, food safety, brand and price. Finally, those that were the least concerned only valued taste and convenience of food (Nie & Zepeda, 2011). These studies lead us to believe that concern about the environment or food provisioning leads to a different valuation of certain beliefs and therefore to different attitudes. Assuming some aspects of local food consumption are similar to those of organic consumption, it is hypothesized that:

H4a: Concern about the environmental effects of the current food provisioning system on the environment moderates the beliefs-attitude relationship, where higher concern leads to a higher valuation of benefit beliefs leading to a more positive attitude about local food at all outlet types.

A second concern that is commonly linked to local food consumption is the amount of power by multinationals and the oppression of small-scale farmers in the current food system. This concern is fuelled by distrust of large corporations. Consumers that are concerned about multinational power feel that large-scale companies only care about profits and not about the health of animals, the environment and humans. Local farmers on the other hand are believed to have consumers' interests at heart and to provide them with safe food. This might also be due to a higher transparency consumers' associate with local farmers. Some also feel that products that are produced on a large scale for a cheap price are of poorer quality and less authentic and that these large-scale corporative products destroy the variety and uniqueness of products by outcompeting small-scale producers. Consumers' concern about multinational power might therefore fuel their desires for building a community with local producers and consumers (Zepeda & Deal, 2009).

One study (Weatherell, Tregear & Allinson, 2003) that investigated the level of concern about food provisioning, had items focusing on both the environmental and health effects of the current system as well as items focusing on the power of multinationals. This study found a cluster of consumers that showed higher overall concern about the food provisioning system. This cluster of consumers showed significantly different food choice priorities, rating all factors higher, except for price. Especially factors of moral and health concerns, origin and intrinsic food qualities were found to be of higher importance. Those that expressed a greater overall concern about food provisioning also indicated that they were more likely to purchase local foods. On top of that, these concerned consumers were also more inclined to pay a 10% premium for local products. However, even though they expressed a greater overall concern, pragmatic factors such as convenience also played a role, limiting their ability to act on their intentions (Weatherell, Tregear & Allinson, 2003). In this way, this study points to a relationship between concern about food provisioning, food choice priorities, purchase intention and willingness to pay. It also again shows that those that have a heightened concern about food provisioning differently rate beliefs about local food. On top of that, they also have a heightened purchase intention and willingness to pay, the latter probably due to the lower valuation of price, resulting from positive attitudes about local food. Based on above studies it is hypothesized that:

H4b: Concern about multinational power moderates the beliefs-attitude relationship, where higher concern leads to a higher valuation of benefit beliefs and lower valuation of price, leading to a more positive attitude about local food at a CSA, farm shop and health food shop and to a more negative attitude about local food at the supermarket.

3.3 Food-Related-Lifestyle

A factor that is likely to have similar effects is the consumer's lifestyle. Assessing consumers' lifestyles and how these influence attitude formation and in turn purchase intention can be valuable for consumer segmentation and consequently for marketing or advertising (Grunert, Brunso & Bisp, 1993). The concept of lifestyle was first introduced by Lazer (1964) and has since been commonly used as a way of psychographic segmentation. In contrast to demographic segmentation, where the variables are objective, psychographic variables are subjective characteristics of consumers (Grunert, Brunso & Bisp, 1993). Even though lifestyle is a popular concept to use for segmentation, a common criticism is that there is no consensus on what lifestyle really encompasses and that definitions of lifestyle are too vague. Another issue of lifestyle research is that it is often measured through commercial instruments such as the Values and Lifestyles (VALS) survey. The problem with this survey is twofold; first VALS does not clearly distinguish between values and lifestyles and second it is based on common sense reasoning rather than on consumer theory. As a solution to these issues the Food-Related-Lifestyle (FRL) has been proposed. The advantage of the Food-Related-Lifestyle is that it is specified to one lifestyle domain and thus more specific than lifestyle in general. On top of that, it builds on the idea from means-end chain theory that a hierarchy of cognitive categories exists which can be used to determine consumer behaviour and to segment consumers (Bech-Larsen, Nielsen, Grunert & Sorensen, 1996; Olson & Reynolds, 1983; Peter & Olson, 1990). In this hierarchy, product perceptions and attitudes are seen as the most concrete cognitive category, whereas values fall within the most abstract cognitive category. Lifestyle is placed in an intermediate category linking product perceptions and attitudes to self-relevant consequences or values. In this way lifestyles are differentiated from values. Furthermore, items that focus specifically on food choice preferences and associations are especially relevant since the behaviour in this research is the purchase frequency of local food (at a certain outlet type). To conclude, items from the Food-Related-Lifestyle survey will be used in this research instead of items from the VALS survey, since these have a higher relevance to this research and are more grounded in consumer theory.

The Food-Related Lifestyle is further segregated based on distinctive scripts, associations and cognitive categories. The five dimensions that have been established are (1) shopping scripts, (2) meal preparation scripts, (3) desired higher-order product attributes, (4) desired consequences and (5) usage situations.

Shopping scripts or ways of shopping are related to shopping behaviour and one of the more concrete cognition dimensions of the FRL instrument. It includes factors such as attitude towards sales venues, product information, shopping lists, advertising and joy of shopping. This dimension aims to discover where consumers mainly shop and how they go about it. Do they prepare a shopping list beforehand or do they shop more impulsively? Are their decisions guided by product information labels or do they prefer the advice of others (Grunert et al., 1993; O'Sullivan et al., 2005)?

Following the shopping scripts are the meal preparation scripts, simpler referred to as cooking methods. This dimension looks at the time and effort that consumers spend on cooking and at consumers' attitudes towards cooking. Factors that are included here are: involvement with and enjoyment of cooking, responsibility of cooking, convenience, planning of meals and experimentation with new ways of cooking (Grunert et al., 1993; O'Sullivan et al., 2005 – Nie & Zepeda, 2011). The original scale also included the factors whole family and women's task to measure who was responsible for meal preparation (Grunert et al., 1993).

The third dimension are the desired higher-order product attributes, also known as quality aspects. These aspects refer to general food attributes that consumers might value in products. Examples of these aspects are convenience, health, value-for-money, novelty, natural, nutritious and organic (Grunert et al., 1993; O'Sullivan et al., 2005 – Nie & Zepeda, 2011). Even though local has not been included in the Food-Related-Lifestyle instrument, researchers expressed that adding a "shop local" factor would improve the FRL quality aspects dimension (Laaksonen, Laaksonen, and Leipämaa, 2002).

The desired consequences or purchasing motives dimension focuses on the higher-order expectations of a meal. This dimension focuses more on what aspects people value or desire and is thus more closely linked to abstract cognitions. These desired consequences can include security, self-fulfilment in food and social relationships. This dimension looks at the relative importance of these consequences (Grunert et al., 1993; O'Sullivan et al., 2005 – Nie & Zepeda, 2011).

The final dimension is usage or consumption situations. This dimension looks at when and where the food is consumed. How are meals spread over the day, does the consumer mainly snack all day round or have three main meals during the day? Which products are consumed when and with whom? How important are social events and how do they influence meal perceptions? The two main factors included here are snacks versus meals and social events (Grunert et al., 1993; O'Sullivan et al., 2005 – Nie & Zepeda, 2011).

In the last decade there has been a great focus on how FRL affects local and organic food consumption. Most, if not all, of these studies have looked at FRL as a segmentation tool. These studies segmented consumers based on their FRL and found various segments with distinctive personal characteristics and particular local and organic food behaviour. These different Food-Related-Lifestyles with varying degrees of local food consumption support the notion that eating local can be a way of life (Schifferstein & Ophuis, 1998). The current study will continue previous research by further investigating the effect of consumers' Food-Related-Lifestyles. Whereas previous studies have only looked at the direct effects of FRL on purchase intention or purchase frequency and used FRL as a way of segmentation, it has been proposed that FRL might not directly affect behaviour, but indirectly through attitudes (Grunert et al., 1993). This study will take this proposition into account and will instead use FRL as a moderator of the beliefs-attitude relationship. The assumption here is that certain dimensions or sub-dimensions of consumers' Food-Related Lifestyle will lead to an emphasis on certain beliefs leading to different attitudes about local food and the outlets at which they are sold. In this way it is aimed to achieve a better understanding of the underlying decision making process leading to purchase intention and consequently purchase behaviour.

This assumption will be examined by testing three of the five Food-Related-Lifestyle dimensions as moderators of the beliefs-attitude relationship. It was decided to omit the higher-order product attributes dimension and the consumption situations dimension. The reason for the former being that it is already included in the beliefs dimension of our research. The reason for the latter being that of the two sub-dimensions of usage situations, social event was found to be highly correlated with the desired consequence social relationships. For this reason, the social event dimension will be included in the social relationships sub-dimension instead. Furthermore, the meals versus snacks sub-dimension showed very low scale reliability and was found to be an inferior predictor in previous research (Grunert et al., 1993). The three remaining dimensions; shopping scripts, meal preparation scripts and desired consequences all seem relevant for local food consumption and therefore will be included as moderating variables.

As mentioned earlier the shopping scripts dimension is made up of several sub-dimensions; importance of product information, joy of shopping, attitude towards advertising, shopping list and attitude towards and frequency of visiting specialty shops. Studies looking at the relationship between FRL and local food consumption found that the importance of product information was higher among local food consumers. These consumers thoroughly examined the ingredients lists of food products before they made a purchasing decision (Stanson, Wiley & Wirth, 2012). What they were interested in was whether the product contained a local label showing the origin of the product and its production methods. On top of that they also looked for information on the nutritional content of the product (Mirosa & Lawson, 2012). This information should guide them in whether the product is healthy and without additives. These factors could lead to them valuing convenience foods less, as these are often of lower nutritional value and less healthy (De Boer et al., 2003). One study even pointed out that when the label was found untrustworthy, consumers refrained from buying local (or organic) products (Zepeda & Deal, 2009).

Another shopping scripts sub-dimension that is found to be relevant to local food consumption is the attitude towards and frequency of visiting specialty shops. Consumers who frequently visited specialty stores (Zepeda & Li, 2006) or farmers' markets (Zepeda & Nie, 2004) were more likely to purchase local or organic products. Consumers that visited farmers' markets specifically to get local produce did so because they had a higher valuation of sustainable land use and wanted to support the local community (Zepeda & Leviten-Reid, 2004). The two sub-dimensions of attitude towards and frequency of visiting specialty shops will however not be included as FRL variables in this research, since both attitudes towards and frequency of shopping at the local food outlet types are already measured as separate variables in this research. The two remaining sub-dimensions of attitude towards advertising and shopping lists will also be omitted from this research as these proved to be of lower explanatory value in influencing the valuation of local food beliefs (Grunert et al., 1993).

A sub-dimension that can influence the attitude towards local food and the various local food outlets is joy of shopping. Consumers who frequently visit farmers' markets to shop for local food in one part do so because they like the shopping experience (Zepeda & Li, 2006). On the other hand non-local food consumers seem to not get enjoyment out of shopping for food. It is thus unlikely that they will value the convivial shopping experience some of these local food venues offer (Mirosa & Lawson, 2012). These consumers might value convenience and time saving, a characteristic of instead.

Summed up, the shopping scripts sub-dimensions of importance of product information and joy of shopping were found to be connected to the expression of certain beliefs and the purchasing of local food products. In this way they can also affect the translation of beliefs into attitudes. It is thus hypothesized that:

H5a: The shopping scripts FRL dimension (with its sub-dimensions joy of shopping and importance of product information) moderates the beliefs-attitude relationship, where a high joy of shopping and importance of product

information lead to a higher valuation of benefit beliefs, leading to a more positive attitude about local food at all outlet types.

The second dimension of FRL, meal preparation scripts, seems extremely relevant for predicting consumers' local food decision making behaviour. This dimension contains the sub-dimensions: looking after new ways, enjoyment of cooking, cooking frequency, preference for convenience and spontaneity, all of which seem relevant for local food purchasing behaviour. Firstly, research has shown that local food consumers have a greater general interest in food and in cooking specifically. On top of having a greater general interest in food and cooking, local food consumers also express to enjoy cooking more and to have enough time to spend on it (Mirosa & Lawson, 2012; Nie & Zepeda, 2011; Zepeda & Li, 2006). They cook more often (Nie & Zepeda, 2011) and more from scratch than non-local food consumers (Zepeda & li, 2006). Among those that mentioned they enjoyed cooking "somewhat" or "very much" purchase intention of local food rose with 50% (Zepeda & Li, 2006). We believe this is not due to a direct effect, but through an indirect effect on the valuation of beliefs. Local food consumers stated that they put more emphasis on food being fresh, of high quality, non-GMO and organic and that convenience, time-saving and brands were less important (Mirosa & Lawson, 2012). We believe that the valuation of these beliefs are associated with their interest in cooking. Those who look after new ways and like to try out new recipes and cuisines also stated that they valued naturalness of ingredients. Furthermore, they preferred fresh and unprocessed foods and declared to consume less convenience and snack foods (Mirosa & Lawson, 2012). Their frequency of buying organic food products was correlated with their frequency of cooking from scratch (De Boer et al., 2003). Those who did not know how to cook and hardly cooked from scratch valued the use of convenience products and, since local convenience products are rare, showed a more negative attitude towards local foods (De Boer et al., 2003; Zepeda & Deal, 2009). Also, those who cooked meals less often were found to be more price-conscious than those who enjoyed cooking and cooked more often (Nie & Zepeda, 2011). So, it seems that the sub-dimensions of meal preparation scripts are highly related to each other. Grunert et al. (1993) found a negative correlation between involvement with cooking and preference for convenience and spontaneity. While other research has not found a significant difference in spontaneity between consumer segments, it can be argued that a higher level of spontaneity in deciding what to eat leads to a lower amount of local food products purchased at specialty stores, since shopping at these stores will often need to be planned within the consumer's routine. The original scale also included the factors whole family and women's task to measure who was responsible for meal preparation (Grunert et al., 1993). It was decided to exclude these factors, since it cannot be assume that all respondents have a family to cook for and since we believe the women's task factor to be condescending and outdated. So, it is hypothesized that:

H5b: The FRL dimension meal preparation moderates the beliefs-attitude relationship, where a high interest in meal preparation (depicted by high enjoyment of cooking, high cooking frequency, a high level of looking after new ways, a low frequency of using convenience products and a low spontaneity) leads to a higher valuation of benefit beliefs and a lower valuation of cost beliefs, leading to a more positive attitude about local food at all outlet types.

The third dimension, desired consequences, originally consisted of 3 elements; self-fulfilment in food, security and social relationships (Grunert et al., 1993). Nie and Zepeda (2011) introduced a new factor to this dimension, namely special diet, which can motivate consumers' local and organic food purchases. A special diet may be followed due to religious reasons, to keep fit or healthy, to treat illness or because one is vegetarian. Those who followed a special diet because they were vegetarian focussed more on values such as health and on environmental beliefs in their motivations for buying organic (Zepeda & Deal, 2009). Those who followed a special diet to keep fit or to treat illness were also likely to value beliefs such as health and naturalness more than those who did not pay attention to what they ate due to health reasons. Since local or organic foods are often associated with similar characteristics, such as naturalness, healthiness and environmental sustainability, it is likely that those who follow a special diet and have a higher valuation of these benefits will be more likely to consume local or organic foods. In this way it can be assumed that the new desired consequence sub-dimension "special diet" has an effect on the attitude formation towards local food consumption. Of the three original desired consequences sub-dimensions, two can be linked to local food consumption. Self-fulfilment in food did not show promising results, whereas security and social relationships did (Grunert et al., 1993). Consumers that were found to be frequent local food purchasers stated that they felt good when serving these foods to their friends. They emphasised their exquisite taste, authenticity and higher quality. Also, their environmental value, healthiness and trustworthiness were appreciated. This points out that consumers who value private-sphere social relationships and frequently dine with friends are likely to value local foods more. The final desired consequence; security, can also impact attitudes towards local food and local food shopping behaviour, although in ambiguous ways. If consumers never tried local foods before and value security they are likely less probable to buy local foods, since they value familiarity and their own well-known brands or varieties. On the other hand, it they are familiar with local food they will be more likely to buy it. In this way security is correlated with habits, which was decided to be excluded from the model. On top of that, the effect size of the security sub-dimension is unclear. For instance, consumers who value security and familiarity might be hesitant in trying out new products, but switching from buying a global variety to a local variety of a product, for instance buying local apples instead of global apples, might not pose too many issues. Due to the ambiguous nature of the

security sub-dimension and its possible contradictions with other desired consequences sub-dimensions it was decided to only include special diet and private-sphere social relationships, leading to the following hypothesis:

H5c: The FRL dimension desired consequences moderates the beliefs-attitude relationship, where local food related desired consequences (vegetarian diet and private sphere social relationships) lead to a higher valuation of benefit beliefs, leading to a more positive attitude about local food at all outlet types.

3.4 Context

The final moderator this study will consider is context. As mentioned earlier context can include both supportive and hindering conditions which can be financial, legal, physical or social. While ABC theory theorizes that context moderates whether attitudes are translated into behaviour, this study add a purchase intention variable and proposes that context both moderates whether attitudes are translated into purchase intentions as well as whether purchase intentions are translated into behaviour. According to the theory of planned behaviour, attitudes, social norms and perceived behavioural control influence one´s intentions, which in turn determine behaviour. On top of that perceived behavioural control also directly influences behaviour. The concept of perceived behavioural control is closely related to the concept of context, as both include factors that can ease or hinder performing the behaviour, the difference lying in the perception or physicality of these conditions (Ajzen, 1991). While in the theory of planned behaviour perceived behavioural control is found to directly influence purchase intention and behaviour, this study will investigate the moderating effects context might have instead on the attitude-purchase intention and purchase intention-behaviour relationships. Since ABC theory and other studies point out that many people indicate that they are interested in buying local and would like to do so, but that practicalities are preventing them from turning their intentions into behaviour (Pirog, 2003; Weatherell et al., 2003). This shows that context can be an important factor in explaining the attitude-behaviour gap.

While context consists of both supportive and hindering conditions, it was decided to mainly focus on the hindering contextual factors. Mapping these hindering factors allows local food outlets to then try and remove or transform these barriers, making it easier for people to turn their attitudes into purchase intentions and into actual purchases of local food. The main perceived barriers to local food are time constraints, monetary constraints, the limited variety, its availability or accessibility and general purchasing inconvenience. Whereas price is a factor that consumers are likely to already take into account during their attitude formation, factors such as availability, time effort and limited variety might be factors that consumers do not initially take into consideration. After forming positive attitudes, consumers might find out that the amount of choice of local food in their area is limited to a selected variety of products or that it provides much more inconvenience in the form of travelling to the location or fitting it into their lifestyle. These initially unnoticed factors can influence whether positive attitudes are translated into purchase intentions and whether purchase intentions are truly transformed into behaviour (Guagnano et al., 1995; Zepeda & Deal, 2009; Nie & Zepeda, 2011).

Multiple studies have already shown the importance of availability of and accessibility to organic and local foods. Limited availability and lack of shopping venues were proven to be a main barrier, significantly influencing the frequency of organic food purchases (Zepeda & Li, 2007). Having access to a farmers' market nearby the consumers' home significantly increased the probability of buying organic or local foods (Nie & Zepeda, 2011; Zepeda & Nie, 2012). This shows that the absence of outlets in the neighbourhood can affect purchase behaviour of local foods. This will be the case even when consumers' have formed positive purchase intentions towards local food beforehand. On top of that, even when there are local food outlets available, distance from the consumer's home, inconvenience of the location and the associated time costs act as barriers to purchase intentions and behaviour as well (Eastwood, Brooker & Gray, 1999; Peterson, Taylor & Baudouin, 2015; Weatherell et al., 2003). These studies lead to the following hypotheses:

H6a: Availability of local food outlet types in the area moderates the attitude – purchase intention relationship, where low availability weakens this relationship, leading to a negative purchase intention of local food at all outlet types.

H6b: Accessibility and time consumption moderate the attitude – purchase intention relationship, where low accessibility and high time consumption weaken this relationship, leading to a negative purchase intention of local food at all outlet types.

H7a: Availability of local food outlet types in the area moderates the purchase intention – purchase behaviour relationship, where low availability weakens this relationship, leading to a low purchase frequency of local food at all outlet types.

H7b: Accessibility and time consumption moderate the purchase intention – purchase behaviour relationship, where low accessibility and high time consumption weaken this relationship, leading to a low purchase frequency of local food at all outlet types.

4. Methodology

4.1 Research design
The research design that was chosen for this study was a repeated measures design. In this design each participant is randomly assigned to one of four testing conditions. Four questionnaire versions were designed based on the four selected local food outlets (supermarket, health food shop, farm shop and CSA). Each questionnaire contained the exact same questions about the control group and about one local food outlet, the only difference between the questionnaire versions was which local food outlet was described as the intervention. The control groups were added to each questionnaire to ensure that all the participants would have the same reference point. In this way variation between the participants of the various questionnaires could be removed by investigating the control groups.

To establish some base knowledge about the food outlets among the participants, which may or may not be familiar with the outlets, the base characteristics of the outlets corresponding to that questionnaire were described. In each survey, first the control group, a supermarket selling global products, was described. After answering questions about the control supermarket, participants got a description of one of the four local food outlets and answered questions about that specific outlet. The full description of each outlet, along with the questionnaire items and their order can be found in appendix 9.1.

Since this study contained four types of local food outlets and one control outlet, another possibility would have been to distribute only one or two versions of the questionnaire, respectively containing all four or two of the local food outlets. However, having to answer questions about all four outlets would surely lead to fatigue among the participants and was therefore disregarded as an option. Having two versions of the questionnaire would reduce the sample size needed and increase the possibility to control for external variables and thus reduce the error variance. Nevertheless, the decision was made to have four versions of the questionnaire, one for each local food outlet, instead. We believe having to answer questions about three outlets, the control and two local food outlets, would have proved to be too tiring for respondents. And since, after the outlet specific questions, an abundant set of personal questions on concern and Food-Related-Lifestyle were included, respondents would likely be too tired to answer these questions. Therefore, it was decided to have four questionnaire versions, each with the control group and one of the four local food outlets. In this way this study employs both a within-subjects and a between-subjects design.

4.2 Research sample
The operational population for this research were "Consumers who do their own grocery shopping and are in charge of meal preparation". Since the study wanted to take demographics such as age, income, education, gender, household composition and residency into account as control variables a wide variety of participants were needed. Since no sampling frame was available, we had to rely on non-random sampling, however within the sample each participant was randomly assigned to one of the four questionnaire versions.

Each questionnaire version needed to reach a certain sample to be able to perform meaningful statistical analyses. A Multiple Regression sample size calculator was used to calculate our sample size. A medium anticipated effect size of 0.15, a desired statistical power of 0.8 and a probability level of 0.05 were used. Since 12 hypotheses had to be tested, the number of predictors was set at 12. A minimum required sample size of 127 participants per questionnaire was the result of the calculation (Free Statistics Calculator, 2017). The aim was to reach 130 participants for each of the four questionnaires.

4.3 Data collection
As mentioned earlier the data collection method was a questionnaire with four versions. The questionnaires consisted mainly of closed questions, leading to mainly standardized quantitative data. The questionnaires was designed and administered online through the survey programme "Qualtrics". To include both Dutch and international respondents, the questionnaires was designed in English.

The process of designing the questionnaires was in great part based on questionnaires from previous studies. The beliefs items were a selection of the most relevant and prominent perceived benefits and costs found in previous

studies. The items of the concern for food provisioning issues and the Food-Related-Lifestyle items were also gathered from previous studies. Primarily factors with the highest discriminatory power and those that seemed relevant for this study were selected (de Boer, McCarthy & Cowan, 2003; Grunert, Brunso & Bisp, 1993; Nie & Zepeda, 2011).

The questionnaire blueprint with a description of the concepts, indicators and questionnaire items can be found in appendix 9.1.

Data for the study was collected during the summer of 2017. In total 689 respondents filled in one or more of the questionnaires, of which 439 questionnaires were answered in full. 115 of the respondents were collected over a three-day period in a computer room at Wageningen University, where students were invited to fill in one or more of the questionnaires in exchange for homemade cupcakes and ice cream bread. Afterwards further respondents were gathered through promotion of the questionnaire online via different media. On Facebook the questionnaire was promoted on the researcher's personal page and in multiple groups, which were "Wageningen Student Plaza", "Vegans and Vegetarians in Wageningen", "Survey Exchange", "Dissertation Survey Exchange" and "Survey Sharing 2016/2017". Next to that the questionnaire was send to relatives of the researcher. On top of that two professional websites meant for exchanging surveys were used to further distribute two of the survey versions. The website "Surveycircle" was used to distribute the CSA questionnaire version, from July 27 until September 1st, with the title "Grocery shopping and local food", which generated 30 responses. The website "SwapSurvey" was used to further distribute the Farm Shop survey version, from July 27 until August 31st, with the same title, which generated 15 responses. Most responses were gathered through the promotion of the questionnaires in the "Wageningen Student Plaza" Facebook group. Respondents who left their email at the end of the questionnaire were entered in a raffle with the chance to win a Tony's Chocolonely of their choosing. One respondent for each of the four questionnaires was selected, encouraging people to fill in multiple questionnaires to increase their chances of winning. For each questionnaire the emails were arranged and numbered, of which one respondent was randomly selected using Google's random number generator.

4.4 Measures

A detailed description of each of the concepts and their measurement are depicted in the Questionnaire Blueprint in appendix 9.1. The Questionnaire Blueprint represents the questionnaire construction plan. Some alterations in the measurements were made just before data collection and during data analysis, which will be briefly discussed in the next paragraphs.

First, some items that were proposed to be included in the questionnaire had to be deleted to lower the chance of fatigue among the participants. The belief items were reduced from 31 items to 17 items, excluding the perceived cost items: wastes a lot of food, sells a lot of unfamiliar vegetables or fruits, inaccessible, unavailable and inconvenient location and excluding the perceived benefit items: trustworthy, good value-for-money, natural, locally produced, free from additives, low carbon footprint, support local economy, transparent about its practices and active community of regular customers from the questionnaire. These items were not included in the questionnaires as these items were found to be similar to other belief items or were mentioned the least in previous studies. As the items availability and accessibility were deleted, this affected the measurement of context. Whereas, initially it was planned to measure both availability and accessibility as belief items and use them as context variables, it was decided to only measure accessibility. Due to the questionnaire design it was already suggested that the venues were available to the participants. Instead of measuring accessibility as a belief item, accessibility and the corresponding time consumption were represented by driving distance. Based on the venue, a driving distance of either 5 (CSM, LSM), 10 (HFS), 15 (FS) or 20 (CSA) minutes was depicted, asking respondents to image the venue was that many minutes away and asking them to indicate their attitude and purchase intention towards buying food at that venue.

Next to limiting the amount of belief items, the concern items were also reduced from 14 to 6 items. Instead of asking participants to indicate to which extent they agreed with statements about the current way of producing food, the 6 items were mixed with the Food-Related-Lifestyle items and participants were asked to indicate to which extent they agreed or disagreed with certain statements used to measure concern in previous studies (Nie & Zepeda, 2011; Weatherell et al., 2003) (See Appendix 7.1).

The 6 statements that were selected were: "The role of supermarkets in the farming industry troubles me", "The limited number of local food shops is disturbing", "I am worried about the future of small farming businesses", " I am concerned about the amount of food miles the food system produces", (Weatherell et al., 2003) "I am worried about the amount of greenhouse gases emitted by the current agricultural system" (Nie & Zepeda, 2011) and "The disconnection between producer and consumer is something I worry about".

Next to the deletion of belief and concern items, also some FRL items were excluded from the research to lower the chance of fatigue. Here the sub-dimensions importance of product information, spontaneity and special diet were deleted, as these were judged to be the least relevant to the research.

During data analysis some adjustments to the original variables had to be made. While, behaviour frequency was originally measured on a 6-point scale, it had to be converted into a dichotomous yes/no variable (see Appendix 9.3 Furthermore, the concept of concern was originally meant to measure two dimensions; multinational- and environmental concern, but was converted to one overall concern factor during data analysis (see Appendix 9.4). Similarly, Food-Related-Lifestyle was adjusted to include two factors instead of three (see Appendix 9.5).

4.5 Data analysis

Through the questionnaire design, which included mostly Likert-scale items, mainly quantitative data was generated. The questionnaire however also contained some open-ended questions asking about the frequency of certain behaviour, such as shopping at the supermarket, CSA, farm shop and health food shop; consumption of organic, local and meat products; and preparing a meal from scratch. Next to that age, nationality and the number of people that one shares their kitchen facilities with were also open-ended questions. All of these, except for nationality, resulted in a number, so there was hardly any need for recoding these variables. However, since some questionnaire items were negatively stated to lower response bias these had to be reverse coded. These were the time and variety belief items and three Food-Related-Lifestyle (FRL) items of social events, joy of shopping and joy of cooking.

After recoding, the first step of the data analysis was to do a randomization check to see whether personality traits were consistent among the four questionnaire versions. After this a look at the descriptive data was taken to check whether the local food outlets and the control outlet were indeed judged differently, and whether differences between the four local food outlets occurred.

After describing the data the hypotheses were tested through simple linear regression analyses. First, to prevent problems of multicollinearity, factor analyses were performed to reduce the 17 belief items into suitable factors. Factor analyses were also performed for the FRL and concern items in order to reduce them down to the hypothesized dimensions from the literature research. Second, the main effects of the model; the translation from beliefs into attitudes (H1), attitudes into purchase intentions (H2) and purchase intentions into purchase frequencies (H3) were tested. After these initial analyses, interaction effects were tested, to see whether concern about food provisioning issues (H4), FRL (H5) and context (H6) influenced the valuation of certain beliefs and their translation into attitudes. Finally, the interaction effect of context on the translation from purchase intentions into purchase behaviour (H7) was tested. A more detailed explanation of the data analyses steps can be found in Appendix 9.2 to 9.6.

5. Results

5.1 Randomization check

To test whether randomization was successful and whether personality traits were indeed consistent among the four questionnaire versions a randomization check was performed. Table 2 shows this randomization check. The assumption was that the answers to all questions about the control outlet, personal characteristics such as FRL and demographics would be similar between the four questionnaire versions, as participants were randomly selected to participate in the questionnaires. One-way ANOVA tests were performed for the beliefs factors scores of the control outlet and the personal variables of Food-Related-Lifestyle (FRL), concern about the current food provisioning system and demographical variables. Analyses were performed to check normality and homogeneity of the data. Whereas, hardly any of the variables showed a normal distribution, most variables had equality of variance, except for education and participant being raised on a farm. Since, ANOVA is considered to be quite robust against violation of the normality assumption, the non-normality of the data was not considered to be a problem. As for the two demographic variables that violated the equality of variance assumption of ANOVA, Welch and Brown-Forsythe tests were performed. These tests showed insignificant p-values, confirming that there is indeed equality of means. Since all ANOVA tests showed equality of means, it can be said that randomization was successful and there were no significant differences in personality traits among the four questionnaire versions.

Personality traits	LSM (v1) Mean	HFS (v2) Mean	FS (v3) Mean	CSA (v4) Mean	F-value	p-value	df
Attitude CSM	4.23	4.20	4.24	4.20	0.073	0.974	549
Attitude CSM with 5-minute driving distance context	4.09	4.26	4.14	4.07	0.956	0.413	481
Purchase intention CSM	4.39	4.30	4.35	4.42	0.461	0.710	549
Purchase intention CSM with 5-minute driving distance	4.16	4.41	4.31	4.37	1.472	0.221	481
Behaviour frequency CSM (No/Yes)	2.74 (0.97)	2.72 (0.97)	2.80 (0.97)	2.66 (0.97)	0.568 (0.016)	0.636 (0.997)	549
CSM outlet belief factor scores	0.66	0.77	0.83	0.78	1.467	0.223	483
CSM product quality belief factor scores	-0.36	-0.24	-0.26	-0.39	0.732	0.533	483
Concern food system	4.58	4.61	4.60	4.84	1.462	0.224	448
FRL shopping scripts	4.81	4.63	4.52	4.55	0.848	0.468	448
FRL cooking scripts	5.11	5.15	5.17	5.19	0.123	0.946	448
Age	25.41	25.29	25.87	27.14	0.882	0.450	436
Gender	1.78	1.76	1.79	1.80	0.147	0.931	439
Education	3.03	2.86	3.05	3.16	1.163	0.324	438
Income	3.26	3.09	2.93	2.72	0.710	0.546	439
Parents raised on farm	2.74	2.71	2.77	2.76	0.292	0.831	439
Participant raised on farm	1.95	1.92	1.97	1.97	1.353	0.257	438
Residency	2.41	2.65	2.57	2.69	1.670	0.173	439
Marital status	1.51	1.63	1.60	1.59	0.565	0.638	437
Children <18	1.03	1.05	1.02	1.04	0.301	0.825	437
Children >18	1.04	1.02	1.03	1.05	0.438	0.726	438
Frequency of organic purchases	1.57	1.58	1.46	1.61	0.192	0.902	437
Frequency of eating meat	3.62	3.33	3.30	3.29	0.336	0.799	437
Frequency cooking from scratch	3.78	4.32	4.17	4.07	0.612	0.608	437
Responsible for dinner	3.98	4.08	4.02	4.11	0.072	0.975	437
Roommates	4.32	3.81	4.05	3.30	1.008	0.389	437

5.2 Descriptive data

Each questionnaire version was described based on its descriptives to get a better feel for the data. All of the questionnaires had a high response rate of females (between 75.5 and 79.4%) and most respondents were under 30 years old (83.7 to 89.1%). It is likely that due to the data collection method the questionnaire was mainly filled in by students, as can also be seen from the fact that only 2.0 to 4.8% had children, most had an income of below €15.000 (44.1 to 55.4%), and a significant percentage shared their kitchen with 5 or more people (25.0 to 34.0%). As the randomization check showed, demographic variables were consistent among the four questionnaire versions.

To test whether participants perceived local food differently from "global" food or whether response bias affected the results, paired samples t-tests were performed, where the beliefs about local food at the four local food outlets were paired with the beliefs about global food at the control outlet. The results of which can be seen in Table 3.

Belief variable: local - global	Mean difference	t	df	p
Cheap	-1.168	-12.392	470	0.000
Authentic	2.157	28.841	470	0.000
Environmental sustainability	2.066	26.602	470	0.000
Fresh	1.376	20.029	470	0.000
Taste	0.605	10.256	470	0.000
High quality	0.510	7.407	470	0.000

Safe	-0.259	-3.974	470	0.000
Health	0.650	12.225	470	0.000
Service quality	0.330	4.590	465	0.000
Convenient store layout	-1.054	-13.797	465	0.000
Support farmers	2.873	31.220	465	0.000
High personal connection	3.142	35.052	465	0.000
Time saving	-1.530	-16.825	465	0.000
High variety	-2.238	-22.776	465	0.000
Entertainment	1.028	12.659	465	0.000
Close	-2.144	-23.143	465	0.000
Convenient opening hours	-2.371	-27.300	465	0.000

As can be seen from Table 3, all p-values are <0.05, meaning that the beliefs about local food were all significantly different from the beliefs about global food and that the participants thus perceived local food differently from global food from the supermarket. Looking at the mean differences local food was overall found to be tastier, of higher quality, healthier, fresher, more environmentally sustainable and more authentic. Buying local food was more entertaining, service quality was higher, and it improved the personal connection with the producer and supports farmers. On the other hand, local food venues were found to have less convenient opening hours, have lower variety of produce, were less time-saving, had less convenient store layouts and were less close than the control supermarket. On top of that, local products were found to be more expensive and less safe than "global" products from the supermarket.

On top of these differences in beliefs between local and global food, it was also anticipated that beliefs would differ between the four different types of local food outlets. Therefore, additional ANOVA tests were performed to test both the effect of local and the effect of the type of outlet on belief formation, attitude formation, purchase intention and behaviour. One-Way ANOVA tests were performed with these variables as the dependent variables and the food outlet as factor variable. Hochberg's GT2 post-hoc tests were performed for the variables with equal variances (attitude, taste, quality, safety, health, service quality and entertainment) and Games-Howell post-hoc tests were performed for the variables with unequal variances to see which means significantly differed from each other. The effect of local food was tested by looking whether mean beliefs, attitudes, purchase intentions and behaviour differed between the control group and the four local food outlets. The effect of type of outlet was tested in the same way, but here it was examined whether the mean beliefs, attitudes, purchase intentions and behaviours differed significantly between the four local food outlets. Table 4 shows the results of these analyses.

*Table 4: Results of ANOVA tests with Hochberg's GT2 post-hoc test (equal variances) or Games-Howell post-hoc test (unequal variances). Subscripts($_{a, b, c}$) indicate insignificantly different group means. ** significant at the 0.01 level. CSM = Control Supermarket, CSA = Community Supported Agriculture farm.*

	CSM	Local supermarket		Health food shop		Farm shop		CSA		F (df)	p
	Mean	Mean	ΔCSM	Mean	ΔCSM	Mean	ΔCSM	Mean	ΔCSM		
Attitude	4.22 a	4.43 a	0.21	4.25 a	0.03	4.23 a	0.01	4.16 a	-0.06	1.665 (1077)	0.156
Attitude with driving distance	4.14 a	4.18 a	0.04	3.34 b	-0.80**	3.06 b	-1.08**	2.95 b	-1.19**	59.713 (946)	0.000
Purchase intention (PI)	4.36 a	4.08 a	-0.28	3.41 b	-0.95**	3.43 b	-0.93**	3.26 b	-1.10**	48.534 (1077)	0.000
PI with driving distance	4.31	3.85	-0.46**	2.74 a	-1.57**	2.60 a	-1.71**	2.36 a	-1.95**	135.866 (946)	0.000
Behaviour No/Yes	0.97	0.57 a	-0.40**	0.48 a, b	-0.49**	0.39 b, c	-0.58**	0.26 c	-0.71**	167.708 (1077)	0.000
Behaviour frequency	2.73	1.72 a	-1.01**	1.58 a	-1.15**	1.53 a	-1.20**	1.38 a, b	-1.35**	134.689 (1077)	0.000
Cheap	4.68	3.62 a	-1.06**	2.80	-1.88**	3.66 a	-1.02**	4.00 a	-0.68**	55.801 (975)	0.000
Authentic	3.55	5.34 a	1.79**	5.53 a	1.98**	5.94 b	2.39**	5.97 b	2.42**	216.229 (975)	0.000
Environmental sustainability	3.45	5.13 a	1.68**	5.49 a, b	2.04**	5.60 b	2.15**	5.79 b	2.34**	204.968 (975)	0.000
Fresh	4.48	5.50 a	1.02**	5.68 a	1.20**	6.04 b	1.56**	6.17 b	1.69**	93.796 (975)	0.000
Taste	4.99	5.35	0.36**	5.46	0.47**	5.81	0.82**	5.74	0.75**	27.500	0.000

		a		a, b		b		b		(975)	
High quality	4.92	5.34 a	0.42**	5.48 a	0.56**	5.47 a	0.55**	5.42 a	0.50**	13.651 (975)	0.000
Safe	5.47 a	5.30 a, b	-0.17	5.31 a, b	-0.16	5.09 b	-0.38**	5.23 a, b	-0.24	3.913 (975)	0.004
Health	5.06	5.55 a	0.49**	5.70 a	0.64**	5.72 a	0.66**	5.86 a	0.80**	28.156 (975)	0.000
Service quality	4.77 a	4.99 a, b	0.22	5.37 b	0.60**	5.20 b	0.43**	4.77 a	0.00	8.855 (949)	0.000
Convenient Layout	5.35	4.84 a	-0.51**	4.63 a	-0.72**	4.18	-1.17**	3.64	-1.71**	67.260 (949)	0.000
Support farmers	3.16	5.71 a	2.55**	5.85 a	2.69**	6.25 b	3.09**	6.14 a, b	2.98**	301.655 (949)	0.000
High Connection	2.72	5.34 a	2.62**	5.59 a	2.87**	6.15 b	3.43**	6.19 b	3.47**	380.585 (949)	0.000
Time saving	4.70	3.88	-0.82**	3.44	-1.26**	2.92 a	-1.78**	2.55 a	-2.15**	101.211 (949)	0.000
High variety	5.26	3.93	-1.33**	3.14	-2.12**	2.63 a	-2.63**	2.65 a	-2.61**	182.301 (949)	0.000
Entertaining	4.10	4.67 a	0.57**	4.76 a	0.66**	5.27 b	1.17**	5.63 b	1.53**	44.874 (949)	0.000
Close	5.72	3.95 a	-1.77**	3.62 a, b	-2.10**	3.41 b	-2.31**	3.44 a, b	-2.28**	154.734 (949)	0.000
Convenient opening hours	5.99	4.29 a	-1.70**	3.72 a	-2.18**	3.21 b	-2.78**	3.46 a, b	-2.53**	230.724 (949)	0.000

From this table several insights can be gained. Firstly, attitudes towards local and global food at all five venues are initially identical, as can be seen from the insignificant p-values. This thus means that initially people on average do not have a more positive or negative attitude towards consuming local food. However, when participants were presented with a driving distance of 5 minutes for the control supermarket (CSM) and local supermarket (LSM), 10 minutes for the health food shop (HFS), 15 minutes for the farm shop (FS) and 20 minutes for the community supported agriculture farm (CSA), mean attitudes towards the outlets started to differ significantly. Where the driving distance was framed to be the same for the control and local supermarket, so were the respondents attitudes towards shopping at these outlets. Whereas, as can be seen from the ΔCSM and mean columns, attitudes towards the HFS, FS and CSA dropped and became significantly lower than attitudes towards the CSM. Surprisingly, attitudes towards these three venues were not significantly different even though their driving distances were not framed equally. From this it could be argued that the biggest effect of driving distance occurs up to 10 minutes, after which the effect flattens, and attitudes drop less significantly.

Secondly, unlike attitudes, purchase intentions did differ among some of the outlets initially. Purchase intentions at a health food shop, farm shop or CSA were significantly lower than those at the supermarkets selling local or global produce. This could mean that people already take some barriers of buying food at these outlets into account, such as driving distance. After adding the context variable of driving distance, surprisingly the purchase intention at the LSM was significantly different from the CSM, whereas both driving distances were framed at 5 minutes. This suggests that other context factors also played a role in deciding the purchase intention, such as perceived product variety and price. Again, purchase intentions among the HFS, FS and CSA were significantly different lower than purchase intentions at the CSM and LSM.

Thirdly, when asking participants about their current shopping behaviour, they indicated that they shopped more frequently at the regular supermarket than they did at the supermarket selling local products or at any of the other local food outlets. In case of the binary behaviour variable, where the answering option "never" was recoded to "no" and all other frequency answering options were recoded to "yes", results were similar. Again, most people indicated to shop at the control supermarket. They shopped less at the supermarket selling local produce and health food shop than at the CSM and even less at the farm shop than they did at the CSM and LSM, finally people bought the least at a CSA.

Finally, as the differences between local and global food were already established by the previous paired-sample t-tests (see Table 3), differences between the four local food outlets and the control outlet were tested. When comparing the four separate local food outlets to the control outlet, again almost all product and outlet beliefs were perceived to be significantly different between the local food outlets and the control supermarket. The only two items where the four local food outlet perceptions did not all significantly differ from the control group were safety and service quality. Food from a farm shop was found to be significantly less safe than food from the regular

supermarket, however food from the other three local food outlets were judged to be just as safe as food from the control supermarket. Service quality was judged to be equal at the global and local supermarkets and at the CSA, but higher service quality was expected at the health food shop and farm shop.

The remaining beliefs all differed significantly between the four local food outlets and the control outlet. These beliefs will be divided into three groups and discussed more closely. First, the beliefs that can be considered to be the primary benefits or the core attributes of a product according to Pirog (2003; 2004): freshness, taste, health, safety and quality. Local food from the four local outlets was found to be more healthy, fresh, tasty and of higher quality than fruit and vegetables from the regular supermarket. As mentioned above, there was no clear local effect of food safety, if any local food was found to be less safe when it was being sold at a farm shop. No difference in health benefits or product quality was perceived between the local food venues, however food was found to be fresher and tastier when purchased at a farm shop or CSA compared to a supermarket selling local products or the health food shop.

Secondly, secondary social and environmental beliefs of service quality, supporting local farmers, authenticity, entertainment, environmental sustainability and a connection between producer and consumer were overall also judged to be more positive at the local food outlets than at the regular supermarket, with the exception of service quality. Local food was believed to support local farmers more and is more environmentally sustainable than regular food bought at the supermarket. Buying at a farm shop was found to support farmers the most and significantly differed from buying local food at the supermarket or health food shop. Local food from a FS or CSA was also found to be significantly more environmentally sustainable than local food from a LSM. Furthermore, local food was believed to be more authentic, to connect you more with the producer of the food and more entertaining to buy. This is even more so when it is bought at a farm shop or CSA as opposed to a supermarket with local products or a health food shop. Finally, no clear effect of local food on the perception of service quality was found, participants judged the service quality of health food shops and farm shops to be higher than those of the CSM and CSA.

Finally, the cost and convenience beliefs included the items; convenient opening hours, closeness of the venue, variety of the products, convenience of the store layout, time consumption of shopping and the price of the products. These variables were found to be barriers to buying local food in previous research and the same was found to be true here. Local food was found to be more expensive and the local food outlets were perceived to have a less convenient store layout, lower variety of products, to be further located from one's home, to have less convenient opening hours and to be overall more time consuming to visit. Local food was found to be the most expensive at the health food shop. Shopping for local food was judged to be more time consuming at the LSM, even more at the HFS, but the most at the FS and CSA, probably because they were also judged to have the least convenient store layout and the least variety, meaning one has to visit multiple shops to acquire all of their shopping. Furthermore, while the LSM was judged to have less convenient opening hours and to be less close to home than the CSM, it was judged to have somewhat more convenient opening hours and to be closer than the other three local food outlets, where the farm shop had the least convenient opening hours.

To summarize, the perception of local food was different from global food in that it was perceived to be fresher, tastier, healthier, more authentic and of higher quality. The local food outlets were judged to be more entertaining to visit, support the farmer more and connect consumers more with the producer. Local food and local food outlets were however also perceived to be less convenient, have a lower variety of produce and are more time consuming to visit. Next to the difference in perception of local food compared to global food, there were also differences in perception of local food based on the outlet in which it was being sold. In this case an overall upward trend was seen for the scoring of the social and environmental beliefs; the higher the degree of social contact of the venue (see 2.2.2. Selection of types of local food outlets), the higher the perception of these benefits. Similarly, as the degree of social contact increased, the degree of time consumption also increased resulting in a downward trend for the convenience beliefs.

Based on these analyses it can be concluded that consumers perceive local food to be different from global food and that the perception of local food even differs based on the outlet it is being sold at. The effect of local and the effect of outlet type will be tested further in the relationships posed in our hypotheses. The results of each of the seven hypotheses will be explained in the upcoming sub-chapters.

5.1 Hypothesis 1

H1: Attitudes about local food at food outlets find their basis in beliefs about local food and food outlet types, where high valuation of positive benefit beliefs and low valuation of negative cost beliefs lead to positive attitudes.

To test this relationship between beliefs and attitude a simple linear regression analysis was performed. First a factor analysis was performed, which resulted in two factors: "Convenience" beliefs and "Product Quality" beliefs (see Appendix 9.2), which were the independent variables in the regression analysis. The following model was tested: Attitude = $\beta_0 + \beta_1*$ Convenience Beliefs + β_2*Product Quality Beliefs + error. Table 5 depicts the results from the regression analyses; their unstandardized beta-coefficients, adjusted R^2, p-values and the degrees of freedom. In this table regression analyses for the five different outlets are depicted; the Control SuperMarket (CSM), the Local SuperMarket (LSM), the Health Food Shop (HFS), the Farm Shop (FS) and the Community Supported Agriculture (CSA) farm. Next to analysing the outlets separately, regression analyses were performed for the four local outlets together, to look at the Local effect, and the five outlets were grouped together to look at the Overall effect. Problems with multicollinearity were tested by looking at the variance inflation factor (VIF) through the collinearity diagnostics. No problems with multicollinearity were detected as all scores were below 1.5.

Table 5: Results of a simple linear regression with attitude as the dependent variable and factor scores for factor 1 "Convenience" and factor 2 "Product quality" beliefs as independent variables. Unstandardized beta coefficients are listed for the three variables. ** Significant at the 0.01 level.

	Overall	CSM	Local	LSM	HFS	FS	CSA
Constant	4.251**	4.249**	4.205**	4.401**	3.888**	4.155**	3.896**
Factor 1: Convenience beliefs	0.106**	0.106	0.073	0.050	-0.305	0.097	-0.123
Factor 2: Product Quality beliefs	0.393**	0.369**	0.435**	0.452**	0.682**	0.450**	0.386**
Adjusted R^2	0.205	0.210	0.198	0.320	0.278	0.190	0.110
p	0.000	0.000	0.000	0.000	0.000	0.000	0.001
df	949	483	465	103	109	141	109

Remarkable about these results is that the convenience factor scores only significantly influence attitudes when all five outlets are grouped together and not when the outlets are tested separately. This might be due to the inclusion of items with both low time consumption, such as convenience and closeness, and with high social contact, such as personal connection and supporting farmers. As these items were found to be highly negatively correlated with each other, SPSS assigned these items to the same factor, with a slight predominance of items focusing on low time consumption and convenience over those focussing on social contact and sustainability. This could result in an overall significant effect, but insignificant effects for smaller subgroups. In this way overall, when examining a large group of people, convenience factors are predominant and people find convenience factors more important than authenticity or social contact factors.

The product quality factor scores however, do show significant results in each of the regression analyses. This conveys that product quality beliefs are important for everyone all the time. Since all product quality belief values are positive this signifies that positive attitudes find their basis in positive valuations of product quality beliefs. This is in accordance with Pirog's (2003; 2004) idea of core attributes, which lists freshness, taste and quality, next to price, as the core attributes of a product.

By looking at the R^2's from above regression analyses it can be concluded that attitudes, to a certain extent, find their basis in beliefs about food and the outlet at which it is being sold. However, the amount of variance that can be explained by the beliefs greatly differs between outlets and ranges between 11.0% and 32.0%. This could imply that many more beliefs play a role in shaping attitudes and that on top of that other facets such as situational or personal factors influence which beliefs play a role in shaping attitudes. From these results the hypothesis: "Attitudes about local food at food outlets find their basis in beliefs about local food and food outlet types, where high valuation of positive benefit beliefs and low valuation of negative cost beliefs lead to positive attitudes" can thus only be partly confirmed, since the positive beliefs about the product quality of local food did lead to positive attitudes, however other proposed beliefs grouped in the "Convenience" factor scores did not significantly influence attitude formation.

5.2 Hypothesis 2

H2: Attitude about local food at an outlet type leads to purchase intention of local food at an outlet type, where a positive attitude leads to a positive purchase intention.

To test whether there is a relationship between attitudes and purchase intentions, again simple linear regression analyses were performed, both for the outlets grouped together as for the separate outlets. This time attitude was taken as the independent variable and purchase intention as the dependent variable, leading to the following model: Purchase Intention = $\beta_0 + \beta_1*$Attitude + error. Results of these analyses can be seen in Table 6, where the unstandardized beta-coefficients, adjusted R^2, Pearson correlation, model significance and degrees of freedom of each analysis are depicted.

Table 6: Results of a simple linear regression with Purchase Intention as the dependent variable and Attitude as the independent variable, for the five different outlet types: Control Supermarket (CSM), Local Supermarket (LSM), Health Food Shop (HFS), Farm Shop (FS) and Community Supported Agriculture (CSA) farm. ** Significant at the 0.01 level.

	Overall	CSM	Local	LSM	HFS	FS	CSA
Constant	1.079**	1.927**	0.162	0.309	0.159	-0.002	0.539
Attitude	0.680**	0.577**	0.793**	0.852**	0.765**	0.813**	0.653**
Adjusted R^2	0.262	0.301	0.323	0.383	0.340	0.338	0.218
Pearson R	0.513	0.550	0.569	0.623	0.588	0.585	0.474
p	0.000	0.000	0.000	0.000	0.000	0.000	0.000
df	1077	549	527	126	123	160	115

Since a simple linear regression with only one independent variable was performed, the Pearson correlation is simply the correlation between the independent variable attitude and the dependent variable purchase intention. As Pearson's R is around and higher than 0.500 for almost all cases, this indicates that there is at least a moderate to strong positive correlation between the attitudes and purchase intentions. Looking at the unstandardized beta-coefficients similar results can be seen; all coefficients are significant and positively contribute to the model. According to the R^2, in most cases about one third of the variation in purchase intention can be accounted for by its matching attitude. In the case of the control supermarket this is 30.1%, for the local supermarket it is 38.3%, at the health food shop it is 34.0% and at the farm shop it is 33.8%. The outlier here it the Community Supported Agriculture farm where only 21.8% of the variation in purchase intention can be explained by its respective attitude. When all local food outlets are grouped together to form one "Local" variable, 32.3% of variance in purchase intention at local food venues can be explained by attitudes towards these local food outlets. When the control group is added to this total, 26.3% of variation in purchase intention of food can be explained by attitudes towards the food products and the outlets.

Based on the previous results the hypothesis: "Attitude about local food at an outlet type leads to purchase intention of local food at an outlet type, where a positive attitude leads to a positive purchase intention" can be confirmed. The beta-coefficients and Pearson correlation coefficient were all positive, which points to a positive relationship between attitudes and purchase intentions. However, these relationships are somewhat more pronounced at certain venues than at others, where the relationship is most visible at the local supermarket and least at the CSA farm.

5.3 Hypothesis 3

H3: Purchase intention of local food at an outlet type leads to purchase behaviour of local food at the outlet type, where a high purchase intention leads to a high purchase frequency.

Due to the unclear phrasing of the answer categories of purchase frequency, it was decided to reduce purchase frequency into a binary variable (See Appendix 9.3). This resulted in the following regression model: Behaviour (no/yes) = $\beta 0 + \beta 1$*Purchase Intention + error. Binary logistic regression analyses were performed for the five outlets separately and together, with purchase intention as the independent variable and behaviour (no/yes) as the dependent variable. The results of the regression analyses can be seen in Table 7 below.

Table 7: Results of the binary logistic regression with Behaviour (no/yes) as the dependent variable and Purchase Intention as the independent variable for the five outlet types: Control Supermarket (CSM), Local Supermarket (LSM), Health Food Shop (HFS), Farm Shop (FS) and Community Supported Agriculture (CSA) farm. Constant and Purchase Intention values are Exponential Beta's. ** Significant at the 0.01 level, * significant at the 0.05 level.

	Overall	CSM	Local	LSM	HFS	FS	CSA
Constant	0.089**	0.327	0.086**	0.243	0.143**	0.062**	0.043**
Purchase Intention	2.363**	3.462**	1.796**	1.512*	1.708**	1.913**	1.814**
Nagelkerke R^2	0.255	0.301	0.148	0.064	0.130	0.168	0.143
p Hosmer and Lemeshow	0.761	0.850	0.195	0.395	0.455	0.420	0.686
% Positive behaviour	70.1	96.9	42.2	56.7	47.6	38.5	25.9

Based on the Nagelkerke R^2 (See Appendix 9.3), it can be concluded that between 6.4 and 30.1% of the variability in purchase behaviour is accounted for by purchase intention. Based on the p-values for the Hosmer and Lemeshow Test for goodness of fit, which all exceed 0.05, it can be assumed that all models have predictive values that are close enough to the observed values to prove that the models have adequate predictive capacities.

While in previous analyses the unstandardized beta's were reported, in this analysis the exponential beta's, or odds ratios are reported instead, since these are easier to interpret. When inspecting the Exponential of B for all the

venues grouped together (the Overall group), this translates into multiplying the odds of purchasing food by 2.363. Or in other words, one unit increase in purchase intention is associated with a 136.3% increase in probability of purchase behaviour. When looking at the four local food outlets grouped together, for each unit increase in purchase intention of local food, consumers odds of actually purchasing local products at either of the four outlets increases with 79.6%.

When inspecting the local food outlets separately it can be seen that the relationship between purchase intention and current behaviour is strongest at the farm shop, an increase of one unit in purchase intention leads to a 91.3% increase of shopping behaviour at this venue. The other local food outlets show positive results as well, where a unit increase in purchase intention of local food at the outlet is associated with a 81.4% increase in purchase behaviour of local food at the CSA, a 70.8% increase at the health food shop and a 51.2% increase at the local supermarket. Since the local supermarket had the lowest effect size and a higher significance level, the confidence interval was inspected to see if there was indeed an effect here. The confidence interval ran from 1.079 to 2.119, since this interval does not include a value of 1.000 at which there is no effect, there is indeed a relationship between purchase intention and purchase behaviour of local food at this outlet.

At the control supermarket, a more general relationship of purchase intention of vegetables and fruit on purchase behaviour of these products was tested. Here a very pronounced relationship is seen, where one unit increase in purchase intention of fruit and vegetables leads to a 246.2% increase in actual purchases of fruit and vegetables at the supermarket. It is therefore striking that from the four local food outlets it is the local supermarket where the relationship between purchase intention and behaviour is the least apparent with only 51.2%. A possible reason for this might be that the other three local food outlets were more distinctive from the control supermarket and the participants could therefore better visualise these stores. The local supermarket might be described too similarly to the control supermarket, which could have made it more difficult for respondents to imagine whether they ever shopped at such a supermarket.

From these results the third hypothesis can be partly confirmed: "Purchase intention of local food at an outlet type leads to purchase behaviour of local food at the provisioning type, where a high purchase intention leads to a high purchase frequency.". It cannot be confirmed that a higher purchase intention leads to a higher purchase frequency, as behaviour frequency was reduced to a dichotomous "yes/no" variable. However, from the significant p-values and positive exponential beta's of purchase intention in the binary logistic regression analyses it can be concluded that there is indeed a positive relationship between purchase intention and purchase behaviour.

5.4 Hypothesis 4

H4a: Concern about the effect of the current food provisioning system on the environment moderates the beliefs-attitude relationship, where higher concern leads to a higher valuation of benefit beliefs leading to a more positive attitude about local food at all provisioning systems.

H4b: Concern about multinational power moderates the beliefs-attitude relationship, where higher concern leads to a higher valuation of benefit beliefs and lower valuation of price, leading to a more positive attitude about local food at a CSA, farm shop and health food shop and to a more negative attitude about local food at the supermarket.

Since factor analyses did not confirm the two hypothesized factors of environmental- and multinational concern, but only one concern factor was retained (See Appendix 9.4), it was decided to adjust hypotheses H4a and H4b. The two hypotheses were merged, and the hypothesis tested instead was:

H4: Concern about the food provisioning system positively moderates the beliefs-attitude relationship, where higher concern leads to a higher valuation of benefit beliefs leading to a more positive attitude about local food at all provisioning systems.

The concern factor was centred to prevent problems of multicollinearity (See Appendix 9.4). This led to the following model for testing hypothesis 4: Attitude $= \beta_0 + \beta_1*$ Convenience Beliefs $+ \beta_2*$Product Quality Beliefs $+ \beta_3*$Centred Concern $+ \beta_4*$Convenience Beliefs*Centred Concern $+ \beta_5*$Product Quality Beliefs*Centred Concern $+$ error. The results of the regression analyses can be seen in Table 8.

Table 8: Results of the linear regression with attitude as the dependent variable and factor scores for factor 1 " Convenience", factor 2 "Product quality" beliefs and concern (centred) as independent variables and moderators. Unstandardized beta coefficients are listed for the food outlets: Control Supermarket (CSM), Local Supermarket (LSM), Health Food Shop (HFS), Farm Shop (FS) and Community Supported Agriculture (CSA) farm. ** Significant at the 0.01 level, * significant at the 0.05 level

	Overall	CSM	Local	LSM	HFS	FS	CSA
Constant	4.279**	4.252**	4.252**	4.414**	4.000**	4.211**	3.932**
Factor 1: Convenience beliefs	0.089**	0.138*	0.050	0.038	-0.284	0.033	-0.097
Factor 2: Product Quality beliefs	0.337**	0.317**	0.339**	0.400**	0.572**	0.310**	0.334**
Concern	0.005	0.062	0.151*	0.029	0.279*	-0.158	0.624**
Factor 1 * Concern	-0.179**	-0.243**	-0.045	0.018	0.080	-0.294	0.200
Factor 2 * Concern	0.007	0.070*	-0.065*	-0.040	-0.204*	0.069	-0.244*
Adjusted R²	0.244	0.273	0.231	0.298	0.386	0.183	0.233
p	0.000	0.000	0.000	0.000	0.000	0.000	0.000
df	897	448	448	98	103	137	107

A noticeable result from Table 8 is that even after adding concern as a personality trait, convenience beliefs still remain an insignificant predictor of attitude in most cases. However, with the addition of concern to the model, attitude towards buying food at the control supermarket now seems to find their basis in convenience beliefs, which was not the case in the simplified model without the concern factor. Next to this main effect of convenience beliefs, the interaction effect between concern and the convenience beliefs was also significant at the control supermarket and at the overall model with all five outlets grouped together. In these two cases convenience beliefs initially positively influenced attitude formation, but having concerns about the current agricultural practices weakened this relationship. So while attitudes about (global) food find their basis in convenience beliefs, when one starts to worry about the effects of this global food provisioning system, convenience beliefs become less important in shaping attitudes.

In three of the cases, concern about the current food provisioning system directly influenced attitude formation. Looking at local food in general, where the four local food outlets were grouped together, there was a positive effect of concern on attitude formation. So as expected, people who are more concerned about food provisioning tend to have a more positive attitude towards local food. This relationship was also significant at the health food shop and community supported agriculture farm, those who had a higher concern had a more positive attitude towards buying local food at these outlets. Concern did not have a significant direct influence on attitude towards buying local food at the supermarket or farm shop. It also did not have a direct effect on attitude towards purchasing food overall or at the control supermarket.

Concern was also found to indirectly effect attitude formation through the product quality beliefs for the CSM, HFS and CSA outlets and for local food in general. In the case of local food in general and the two local food outlets, a high level of concern negatively affected the relationship between beliefs about product quality and attitude. In case of the control supermarket, concern positively affected the relationship between product quality beliefs and attitude. These are striking results as it was expected that concern about food provisioning would lead to a higher valuation of the benefits of local food, such as its product quality, and thus to a more positive attitude towards local food. Instead concern weakened the relationship between product quality beliefs and attitude towards local food.

A positive outcome of these regression analyses is that the addition of concern as a main effect and as a moderator allowed the model to explain more of the variation in attitude towards local food, with up to about 11% at the health food shop and CSA. However, based on the results the fourth hypothesis that: "Concern about the food provisioning system positively moderates the beliefs-attitude relationship, where higher concern leads to a higher valuation of benefit beliefs leading to a more positive attitude about local food at all provisioning systems.", cannot be confirmed, since concern was not found to be a significant moderator at all outlets and since significant moderating effects were found to be negative instead of the hypothesized positive effects.

5.5 Hypothesis 5

H5a: The shopping scripts FRL dimension moderates the beliefs-attitude relationship, where a high joy of shopping leads to a higher valuation of benefit beliefs, leading to a more positive attitude about local food at all outlet types.

H5b: The FRL dimension meal preparation moderates the beliefs-attitude relationship, where a high interest in meal preparation (depicted by high enjoyment of cooking, high cooking frequency, a high level of looking after new ways and a low frequency of using convenience products) leads to a higher valuation of benefit beliefs and a lower valuation of cost beliefs, leading to a more positive attitude about local food at all outlet types.

H5c: The FRL dimension desired consequences moderates the beliefs-attitude relationship, where local food related desired consequences (special diet and private sphere social relationships) lead to a higher valuation of benefit beliefs, leading to a more positive attitude about local food at all outlet types.

Since factor analysis did not confirm the three hypothesized Food-Related-Lifestyle dimensions, and reliability of the desired consequences dimension was deemed unsatisfactory (See Appendix 9.5), hypothesis H5c was omitted from this research. On top of that due to low inter-item and total-item correlations of the convenience and cooking frequency items with the other meal preparation items it was decided to also deleted these from the research. This leads to the revised hypothesis:

H5b: The FRL dimension meal preparation moderates the beliefs-attitude relationship, where a high interest in meal preparation (depicted by high enjoyment of cooking and a high level of looking after new ways) leads to a higher valuation of benefit beliefs and a lower valuation of cost beliefs, leading to a more positive attitude about local food at all outlet types.

In preparation for the linear regression analyses, both FRL factors were centred, by subtracting the means, to prevent possible problems with multicollinearity. Interaction variables were created by multiplying the centred FRL factors with the Belief factor scores. This led to the following model for testing hypotheses 5a and 5b: Attitude = β_0 + β_1* Convenience Beliefs + β_2*Product Quality Beliefs + β_3*Centred Shopping Scripts + β_4*Centred Cooking Scripts + β_5*Convenience Beliefs*Centred Shopping Scripts + β_6*Product Quality Beliefs*Centred Shopping Scripts + β_7* Convenience Beliefs*Cooking Scripts + β_8* Product Quality Beliefs*Cooking Scripts + error. Simple linear regression analyses were performed for the five outlets separate and grouped together. The results of which are depicted in Table 9.

Table 9: Results of the linear regression analyses with attitude as the dependent variable and factor scores for factor 1 "Convenience" and factor 2 "Product quality" beliefs and centred Food-Related-Lifestyle factors "Shopping scripts" and "Cooking scripts" as independent variables and moderators. Unstandardized beta coefficients are listed for the five variables. Outlets depicted are the Control Supermarket (CSM), Local Supermarket (LSM), Health Food Shop (HFS), Farm Shop (FS) and Community Supported Agriculture farm (CSA). ** Significant at the 0.01 level, * significant at the 0.05 level.

	Overall	CSM	Local	LSM	HFS	FS	CSA
Constant	4.146**	3.928**	3.396**	4.108**	2.227**	4.709**	3.195**
F1 Convenience beliefs	0.120**	0.044	0.070	0.094	-0.158	0.062	-0.108
F2 Product quality beliefs	0.423**	0.424**	0.382**	0.473**	0.530*	0.398**	0.343**
Centred FRL shopping scripts	-0.010	-0.139	-0.040	-0.151	-0.021	0.154	-0.266
Centred FRL cooking scripts	0.037	0.180	0.218*	0.186	0.376	-0.198	0.312
F1*shopping scripts	-0.005	0.131	-0.062	-0.141	-0.081	0.085	-0.267
F2*shopping scripts	-0.058	-0.075	-0.074	-0.046	-0.053	-0.089	-0.171
F1*cooking scripts	-0.032	-0.190*	0.151	0.100	0.238	-0.162	0.368
F2*cooking scripts	-0.048	0.038	-0.115*	-0.188	-0.137	0.032	0.075
Adjusted R^2	0.203	0.208	0.206	0.322	0.338	0.119	0.113
p	0.000	0.000	0.000	0.000	0.000	0.002	0.010
df	897	448	448	98	103	137	107

As can be seen from Table 9, adding FRL to the model, did not significantly improve the model. The adjusted R^2's remained similar, or in the case of the Farm Shop, the percentage variability that could be explained even decreased by 7.1%. The significance of the two belief factor scores remained the same. The "Convenience" factor scores remained only significant at the overall model and not at the separate outlets. The "Product Quality" beliefs remained significant at all five outlets. No significant main effects for the two FRL factors were found overall or for the venues separately. However, when looking at the four local food outlets together a positive effect of meal preparation was found. This means that cooking or meal preparation scripts; enjoyment of cooking and trying out new recipes or cuisines, positively affect attitudes towards local food in general, but not to the local food outlets specifically. So overall those who like to cook and experiment in the kitchen have a more positive attitude towards local food, but not to a particular local food outlet. The reason for this might be the larger sample size that is created when the four outlets are grouped together. Meaning that a positive effect of meal preparation scripts would be possible for the four local food venues separately as well, if the sample size would have been larger.

It was hypothesized that those who enjoyed shopping for food would be less focussed on the time constraints and possible inconvenience shopping for local food might bring about and thus have a more positive attitude towards shopping for local food. Despite this, no significant interaction effects between the "Convenience" nor the "Product Quality" belief factors and the shopping scripts factor were found. Meaning enjoyment of shopping did not affect the relationship between beliefs and attitude towards local food or the food outlets. It was also predicted that cooking scripts would have a positive effect on attitude towards local food, by strengthening beliefs about the product quality of local food. We assumed that those who enjoyed cooking, valued the freshness, taste and quality of local produce over global produce. No significant interaction effect between cooking scripts and beliefs was seen, except for a negative effect of cooking scripts on "Convenience" beliefs at the CSM and on "Product Quality" beliefs of local food in general. This means that people who enjoyed cooking valued convenience and price, but also factors such as environmental sustainability and supporting farmers, less when shopping for food at a regular supermarket, therefore weakening its effect on attitude towards the CSM. Next to this, enjoyment of cooking weakened the relationship between "Product Quality" beliefs and attitude towards local food. This is surprising, as the opposite was anticipated to be true.

To conclude, while it was expected that enjoyment of shopping would strengthen attitudes towards shopping for local food, no main effect or interaction effect for the FRL dimension "Shopping scripts" was found. Therefore, hypothesis 5a: "The shopping scripts FRL dimension moderates the beliefs-attitude relationship, where a high joy of shopping leads to a higher valuation of benefit beliefs, leading to a more positive attitude about local food at all outlet types.", could not be confirmed. Furthermore, hypothesis 5b: "The FRL dimension meal preparation moderates the beliefs-attitude relationship, where a high interest in meal preparation (depicted by high enjoyment of cooking and a high level of looking after new ways) leads to a higher valuation of benefit beliefs and a lower valuation of cost beliefs, leading to a more positive attitude about local food at all outlet types.", could also not be confirmed as most results were insignificant and those that were significant showed a negative moderating effect of meal preparation scripts. A direct positive effect of meal preparation scripts was found on the attitude towards local food.

5.6 Hypothesis 6

H6a: Availability of local food outlet types in the area moderates the attitude – purchase intention relationship, where low availability weakens this relationship, leading to a negative purchase intention of local food at all outlet types.

H6b: Accessibility and time consumption moderate the attitude – purchase intention relationship, where low accessibility and high time consumption weaken this relationship, leading to a negative purchase intention of local food at all outlet types.

As mentioned in chapter 4.4 Measures) it was decided to not measure accessibility and availability as belief items, but to use driving distance as a proxy for accessibility instead. Participants were presented with an outlet and a corresponding driving distance of either five (CSM, LSM), ten (HFS), fifteen (FS) or twenty (CSA) minutes. Respondents were then asked to indicate their attitude and purchase intention towards buying food at that outlet after learning its accessibility. The consequence of this change in questionnaire design is that accessibility context was now regarded as a direct influencer of both attitudes and purchase intentions instead of as an indirect moderator. Due to these changes (See Appendix 9.6 **Data analysis description hypothesis 6**) the original hypotheses had to be adjusted, which led to the new hypothesis:

H6: Accessibility negatively affects attitude formation, where low accessibility (depicted by a high driving distance) lowers attitudes towards local food at all outlet types.

To test the effect of driving distance, and thus accessibility, on attitudes, paired-samples t-tests were performed for the five outlets separately, for the four local food outlets together and all five outlets together. The results of which are depicted in Table 10 and
Figure 4.

*Table 10: Results of the paired samples t-tests between the base attitudes and attitudes with a driving distance of 5 (CSM, LSM), 10 (HFS), 15 (FS) or 20 (CSA) minutes. ** Significant at the 0.01 level*

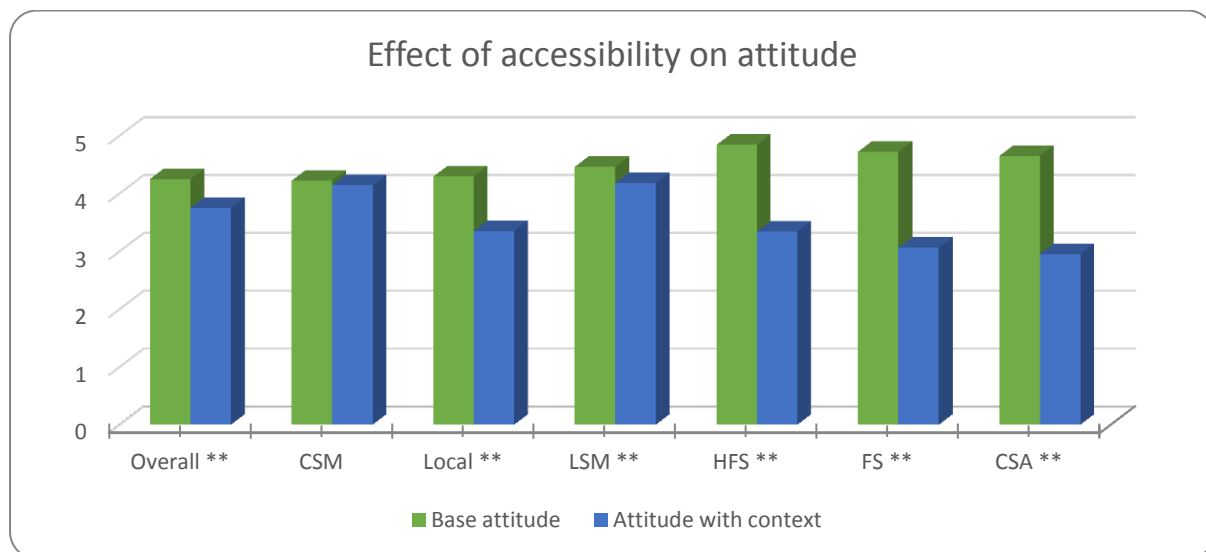|	Overall	CSM	Local	LSM	HFS	FS	CSA
Base attitude	4.25	4.22	4.29	4.46	4.29	4.26	4.18
Attitude with context	3.75	4.14	3.35	4.18	3.34	3.06	2.95
Mean difference	-0.501*	-0.077	-0.940*	-0.279*	-0.955*	-1.191*	-1.227*
df	947	482	465	104	110	141	110

Figure 4: Effect of accessibility on attitude, where accessibility is measured through driving distance, which is 5 minutes for the Control Supermarket(CSM) and Local Supermarket (LSM), 10 minutes for the Health Food Shop (HFS), 15 minutes for the Farm Shop (FS) and 20 minutes for the Community-Supported-Agriculture (CSA) farm.* Significant mean difference at the 0.01 level.

From this table and figure it can be concluded that at each of the local food outlets there is a significant difference between the initial base attitudes and the attitudes with a framed driving context. Furthermore, as the driving distance increases, which was 5 minutes for the LSM, 10 for the HFS, 15 for the FS and 20 minutes for the CSA, attitudes seem to decrease gradually. The main difference is observed when driving distance is increased from 5 to 10 minutes, after which the effect diminishes and becomes insignificant. What is striking from these results is that the mean difference is significantly negative at the local supermarket, but not significantly different at the control supermarket, even though accessibility was framed at 5 minutes driving distance at both outlets. A likely explanation for this is that initial attitudes towards the LSM were more positive than those towards the CSM. So, while attitudes towards both outlets after framing the driving distance were equal, the higher base attitude towards the LSM lead to a significant mean difference at the LSM, but not at the CSM. When grouping all five outlets together as an overall group, the negative effect of accessibility context on attitudes is observed again.

So, from these results it can be concluded that driving distance, which was a proxy for accessibility, significantly lowered attitudes. Based on this the revised hypothesis: "Accessibility negatively affects attitude formation, where low accessibility (depicted by a high driving distance) lowers attitudes towards local food at all outlet types." can be confirmed.

5.7 Hypothesis 7

H7a: Availability of local food outlet types in the area moderates the purchase intention – purchase behaviour relationship, where low availability weakens this relationship, leading to a low purchase frequency of local food at all outlet types.

H7b: Accessibility and time consumption moderate the purchase intention – purchase behaviour relationship, where low accessibility and high time consumption weaken this relationship, leading to a low purchase frequency of local food at all outlet types.

As with the previous hypothesis, changes in questionnaire design (See chapter 4.4 and appendix 9.6) resulted in the conversion of testing context as a moderator of purchase intention to testing the direct effect accessibility context might have on purchase intention instead. This was done by framing accessibility and corresponding time consumption of the food outlets through a driving distance variable and led to the new hypothesis:

H7: Accessibility negatively affects purchase intentions, where low accessibility (depicted by a high driving distance) lowers purchase intentions of local food at all outlet types.

Again, paired-samples t-tests were performed, of which the results can be seen in Table 11 and Figure 5.

*Table 11: Results of the paired samples t-tests between the base purchase intentions and purchase intentions with a driving distance of 5 (CSM, LSM), 10 (HFS), 15 (FS) or 20 (CSA) minutes. ** Significant at the 0.01 level, * significant at the 0.05 level.*

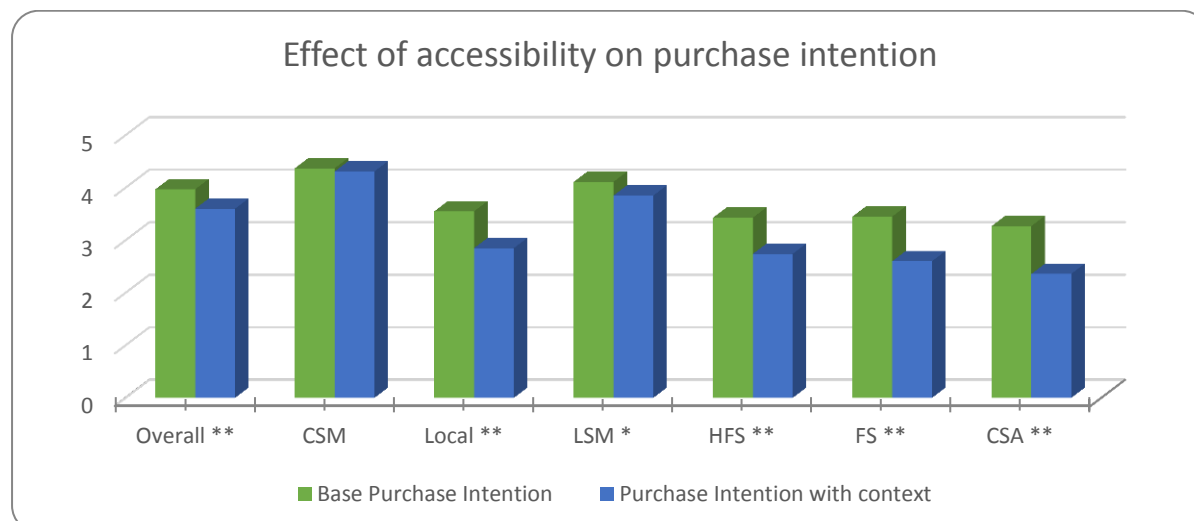|	Overall	CSM	Local	LSM	HFS	FS	CSA
Base Purchase Intention	3.97	4.37	3.55	4.11	3.43	3.45	3.27
Purchase Intention with context	3.60	4.31	2.85	3.85	2.74	2.60	2.36
Mean difference	-0.373**	-0.060	-0.697**	-0.260*	-0.691**	-0.858**	-0.909**
df	947	482	465	104	110	141	110

*Figure 5: Effect of accessibility on purchase intention, where accessibility is measured through driving distance, which is 5 minutes for the Control Supermarket (CSM) and Local Supermarket (LSM), 10 minutes for the Health Food Shop (HFS), 15 minutes for the Farm Shop (FS) and 20 minutes for the Community-Supported-Agriculture (CSA) farm. * Significant mean difference at the 0.01 level.*

The results reflect the previous attitude analyses. Purchase intentions at the four local food outlets were significantly lower after confronting participants with the accessibility of the outlets and again a trend seems to be present where, as driving distances increase, purchase intentions gradually decrease. Once more, the biggest decline is observed when driving distance is increased from 5 minutes to 10 minutes. Even though purchase intentions seem to keep gradually decreasing after this, no significant differences were found between the HFS, FS and CSA (see descriptives data in table 4). Similarly to attitudes, no significant drop was detected in purchase intentions at the control supermarket, even though at the local supermarket a decrease was observed. While previously this could be explained by the initial higher attitudes towards the local supermarket, in this case purchase intentions at the local supermarket and control supermarket were initially equal. A possible explanation for the larger drop in purchase intentions than attitudes could be that accessibility context has a greater direct effect on purchase intentions than attitudes.

Next to the individual outlets, a negative effect of driving distance on purchase intention was found for the four local outlets grouped together and for all five outlets grouped together. Based on these results the revised hypothesis: "Accessibility negatively affects purchase intentions, where low accessibility (depicted by a high driving distance) lowers purchase intentions of local food at all outlet types." can be confirmed.

6. Conclusion

Where issues with the current globalized production system, such as the amount of transport, conglomeration of power and loss of social fabric become more present, the interest in local food production is growing among consumers. Even though locally sourced food seems to grow in demand, only 6 to 10% of the Western consumers end up actually buying local food products on a regular basis (Weatherell et al., 2003). While many studies have focussed on mapping the benefits and underlying decision-making process in order to understand this attitude-behaviour gap and be able to promote local foods successfully, few studies have investigated the influence of outlet types on the decision-making process. Furthermore, the influence of situational and personal factors on the process recede into the background in most studies. The addition of these factors could give new insights in how the decision-making process differs based on certain personal characteristics and the location at which the food is sold. The aim of this study was therefore to deepen our understanding of the consumers' decision-making process when confronted with local food outlets, by examining the role of beliefs, attitudes, purchase-intention, Food-Related-Lifestyle, concern about food provisioning and accessibility in determining local food purchase behaviour at four different local food outlets. The general research question this research consequently sought out to answer was: "Which factors influence consumers' decision making when confronted with different local food outlets?".

In order to answer the general research question a model of the decision-making process was developed based on Attitude-Behaviour-Context (ABC) theory, Value-Belief-Norm (VBN) theory and Alphabet theory with a specific focus on four selected local food outlets. In this way the model could be tested for each of the outlets as for local food in general. The four selected outlets were chosen based on their degree of social contact and time consumption. The selected outlets were a supermarket selling local products (LSM), a health food shop (HFS), a farm shop (FS) and a Community Supported Agriculture farm (CSA). Next to this a control outlet, the control supermarket (CSM), was added as a benchmark to test for differences between global and local food and to adjust for response bias.

Through paired sample t-tests of several beliefs it became evident that consumers indeed perceived local food differently from global food. Compared to global food, local food was found to be tastier, of higher quality, healthier, fresher, more environmentally sustainable and more authentic. Buying local food was found to be more entertaining, service quality was recognized to be higher, and buying local food was perceived to improve the personal connection with the producer and support farmers to a greater extent. On the other hand, consumers perceived local food outlets to have less convenient opening hours, a lower variety of produce, to be less time-saving, have less convenient store layouts and to be further away than the regular supermarket. On top of that, local products were found to be more expensive and less safe than global products from the supermarket.

Unique to this study is that in addition to testing the difference in beliefs between global and local food, also the perceptions between different local food outlets were tested. The results of which showed that even though some benefits are core to the concept of local food, some benefits or costs are linked more specifically to certain types of outlets. While taste, quality, freshness, health and food safety were considered to be the core attributes of food products in general by Pirog (2003; 2004), four of these aspects also emerged as core attributes of local food. Local food from the four local outlets was found to be more healthy, fresh, tasty and of higher quality than fruit and vegetables from the regular supermarket. No difference in health benefits or product quality was perceived between the local food venues, however food was found to be even fresher and tastier when purchased at a farm shop or CSA compared to a supermarket selling local products or the health food shop. Furthermore, social and environmental attributes such as authenticity, environmental sustainability, entertainment and connecting with and supporting farmers were also significantly more prominent at the farm shop and CSA. On the other hand, convenience benefits such as a convenient store layout, convenient opening hours, time-saving and variety were attributes that were significantly less prominent at these outlets and more prominent at the local supermarket and to a lesser extent the health food shop.

These results show that there are indeed differences in perceptions of local food depending on the type of outlet that is selling it. At the outlets that were classified to have a high degree of social contact, social benefits were emphasized more prominently, where at the outlets that were classified to have a low degree of time consumption, convenience and time-saving costs were judged more positively. While there were differences in beliefs between the outlets, the farm shop and CSA were often judged similarly as were the local supermarket and health food shop. From this it can thus be concluded that the type of outlet, or more specifically the degree of social contact and time consumption, to some extent influence the belief formation of consumers.

Next to differences in belief expression, this study aimed to expand the comprehension of the consumers' decision-making process associated with these specific local food outlets. In order to investigate which factors influence consumers' decision making, six sub research questions and seven hypotheses were formulated. The results of the hypotheses are summarized in table 12 below.

Table 12: Results of the hypotheses numbered 1 to 7, with their sub-dimensions. ✓ depicts a confirmed hypothesis or sub-hypothesis ✗ depicts an unconfirmed hypothesis or sub-hypothesis, ✓✗ depicts a partially confirmed hypothesis. (-) depicts a negative moderating effect, (+) a positive moderating effect. Outlets are depicted separately; Control Supermarket (CSM), Local Supermarket (LSM), Health Food Shop (HFS), Farm Shop (FS) and Community Supported Agriculture farm (CSA). All outlets are grouped together in an overall variable and all local outlets are grouped together in a local variable.

Hypothesis	Confirmation per outlet						
	Overall	Local	CSM	LSM	HFS	FS	CSA
1: Attitudes find their basis in beliefs	✓	✓✗	✓✗	✓✗	✓✗	✓✗	✓✗
- Convenience beliefs	✓	✗	✗	✗	✗	✗	✗
- Product Quality beliefs	✓	✓	✓	✓	✓	✓	✓
2: Attitudes lead to purchase intentions	✓	✓	✓	✓	✓	✓	✓
3: Purchase intentions lead to purchase behaviour	✓	✓	✓	✓	✓	✓	✓
4: Concern moderates the beliefs-attitude relationship (-) or (+)	✗	✗	✓	✗	✗	✗	✗
- Convenience beliefs	✓ (-)	✗	✓ (-)	✗	✗	✗	✓ (-)
- Product Quality beliefs	✗	✓ (-)	✓ (+)	✗	✓ (-)	✗	✓ (-)
5: Food-Related-Lifestyle moderates the beliefs-attitude relationship (-) or (+)	✗	✗	✗	✗	✗	✗	✗
- Convenience beliefs * Shopping Scripts	✗	✗	✗	✗	✗	✗	✗
- Convenience beliefs * Cooking Scripts	✗	✗	✓ (-)	✗	✗	✗	✗
- Product Quality beliefs * Shopping Scripts	✗	✗	✗	✗	✗	✗	✗
- Product Quality beliefs * Cooking Scripts	✗	✓ (-)	✗	✗	✗	✗	✗
6: Accessibility and time consumption negatively affect attitudes	✓	✓	✗	✓	✓	✓	✓
7: Accessibility and time consumption negatively affect purchase intentions	✓	✓	✗	✓	✓	✓	✓

As this table shows hypotheses 2, 3, 6 and 7 could be confirmed by the study results, hypothesis 1 could be partly confirmed and hypothesis 4 and 5 were rejected. Based on these results, the sub research questions will now be answered in order.

SQ1: To what extent do attitudes about local food at the various outlet types find their basis in the valuation of beliefs about local food and outlet types?

As can be seen from table 12, positive valuation of product quality beliefs, which included taste, health, freshness, food safety, entertainment and product quality, led to positive attitudes about local food at all outlet types. Positive attitudes however only found their basis in beliefs about the convenience or the environmental benefits of purchasing food in the model with all five outlets grouped together. The inclusion of the often opposing belief items of convenience and environmental and social sustainability in the same factor might be what caused their insignificant effect on attitude formation at the separate outlets with lower sample sizes. This also leads us to believe that product quality beliefs are valued by everyone all the time, and that overall when examining a large group the convenience beliefs are also valued more than environmental or social sustainability beliefs. In this way, in the overall population the positive valuation of product quality and convenience beliefs lead to positive attitudes.

SQ2: To what extent are attitudes towards local food at the various outlet types translated into purchase intention of local food at the different outlet types?

A strong correlation (A. Field, 2009) was observed between attitudes and purchase intentions at all outlets separately as well as grouped together in a local or overall variable. In all cases positive attitudes translated into positive purchase intentions. On top of that attitudes were able to explain between 21.8 and 38.3% of variations in purchase intentions. The relationship between attitudes and purchase intentions was however somewhat more pronounced at certain outlets. The relationship was strongest at the local supermarket, here 38.3% of variations could be explained. At the health food shop and farm shop, this was 34.0% and 33.8% respectively. The relationship was weakest at the CSA, with only 21.8% of variation in purchase intentions accounted for by attitudes.

From this it can be concluded that attitudes towards local food do for a significant extent translate into purchase intentions of local food at the different outlet types.

SQ3: To what extent do purchase intentions of local food at the various outlet types lead to purchase frequencies of local food at those outlet types?

Since ambiguity in answer phrasing of the behaviour frequency variable lead to the substitution of behaviour frequency for a dichotomous behaviour variable, this study cannot uncover the relationship between purchase intentions and behaviour frequency. However, as table 12 shows, the hypothesis that purchase intentions lead to purchase behaviour could be confirmed at all local food outlets. When examining the results of the binary logistic regressions a very prominent relationship between purchase intentions and purchase behaviour was shown. For each

unit increase in purchase intention of local food, the odds of consumers actually purchasing local food products increased with 51.2 up to 91.3%. At the control supermarket even a more pronounced relationship between purchase intentions and behaviour was seen, where one unit increase in purchase intention of fruit and vegetables led to a 246.2% increase in actual purchases of fruit and vegetables at the supermarket.

From this it can be concluded that purchase intentions of local food to a great extent influence purchase behaviour of local food at the different outlet types, but an even greater effect is seen between the purchase intention and purchase behaviour of global food.

SQ4: To what extent does concern about multinational power and the environmental effects of the current food provisioning system influence the valuation of beliefs and their translation into attitudes?

Since factor analyses did not confirm the two hypothesized factors of environmental- and multinational concern, but only one general concern factor was retained (See Appendix 9.4 **Data analysis description hypothesis 4**), only a conclusion on how concern generally affects the belief-attitude relation can be drawn. From the results and table 12 it can be concluded that concern to some extent does influence the valuation of beliefs and their translation into attitudes. While in most cases, concern did not show moderating effects, overall and at the control supermarket (CSM) specifically, concern did influence the translation of convenience beliefs into attitudes. Where initially convenience beliefs did not significantly influence attitude formation at the CSM, the addition of concern to the model resulted in a positive direct effect of convenience beliefs at the CSM. Having concerns about the current agricultural practices then weakened the relationship, meaning that while attitudes about global food find their basis in convenience beliefs, when one starts to worry about the effects of this global food provisioning system, convenience beliefs become less important in shaping attitudes.

Concern also to a somewhat greater extent influenced the valuation of product quality beliefs, although results were opposite to what was hypothesized. Instead of concern leading to a higher valuation of product quality beliefs, which were found to be core attributes of local food, concern negatively moderated the product quality belief-attitude relationship of local food in general and at the health food shop and CSA specifically. On the other side, a positive moderating effect on the product quality belief-attitude relationship was found at the control supermarket. While both these findings are surprising, a positive direct effect of concern on attitudes towards local food in general and towards local food at the health food shop and CSA was observed. From this it can be concluded that concern to some extent influenced the beliefs-attitude relationship.

SQ5: To what extent do Food-Related-Lifestyle factors influence the valuation of beliefs and their translation into attitudes?

It was hypothesized that having joy in shopping for food would lead to a more positive attitude towards local food through the lower valuation of convenience beliefs such as time saving and a higher valuation of local food benefits such as entertainment. No main effects or interaction effects of shopping scripts were however found, so from these results it would be concluded that the shopping scripts dimension of one's food related lifestyle does not influence local food attitude formation.

It was also hypothesized that cooking scripts, specifically enjoyment of cooking and trying out new recipes and foods, would lead to a more positive attitude towards local food through a higher valuation of the benefits of local food such as its taste and freshness and a lower focus on convenience beliefs such as time constraints. While a positive direct effect of cooking scripts on attitude formation towards local food was observed, the moderating effect of cooking scripts on product quality valuation was negative. So while in the end enjoyment of cooking led to a more positive attitude towards local food this was not through a higher valuation of product quality beliefs or a lower valuation of convenience beliefs. On top of the direct and moderating effect on local food in general, a moderating effect of cooking scripts on the valuation of convenience beliefs was seen at the supermarket selling global produce, meaning enjoyment of cooking led to a lower focus on time constraints as expected. From these results it can be concluded that Food-Related-Lifestyle to a small extent did influence the valuation of beliefs and their translation into attitudes.

SQ6: To what extent does accessibility context inhibit or support the translation of attitudes into purchase intentions and of purchase intentions into purchase frequencies?

Where it was initially intended to investigate the moderating effects accessibility context might have on attitudes and purchase intentions, changes in questionnaire design lead to testing the direct effects of accessibility context instead.

The results showed, as expected, a significant negative direct effect of accessibility context on both attitudes and purchase intentions, meaning both attitudes and purchase intentions at all local food outlets and for local food in general decreased when participants were presented with a clear accessibility context. Effects of accessibility, which was framed through a driving distance ranging between five and twenty minutes, started to even out after ten minutes. From these results it can be concluded that accessibility indeed negatively influences attitudes towards and purchase intentions of local food at the different outlet types, where the peak effect is reached at ten minutes driving distance.

Based on the sub-questions we can now answer the general research question:
"Which factors influence consumers' decision making when confronted with different local food outlets?".

Three factors showed a prominent influence on the decision-making process, these were accessibility of local food and attitudes and purchase intentions towards local food. Furthermore, beliefs were found to partially have a significant influence on the decision-making process. Concern about food provisioning and Food-Related-Lifestyle only to a small extent influenced the decision-making process. Based on the results, the decision-making process seems to most closely mimic Attitude-Behaviour-Context (ABC) theory, where positive attitudes lead to positive behaviour, but where context can override these positive attitudes. In this study a similar result was seen, where positive attitudes found their basis in the valuation of product quality beliefs. These positive attitudes then led to positive purchase intentions which in turn led to positive purchase behaviour of local food in general and at the four selected outlet types. Just like in ABC theory context was also a significant predictor. Where in ABC theory, context impacted the relationship between attitudes and behaviour, in this study the context variable; accessibility, had a direct negative impact on both attitudes and purchase intentions.

From this study it can be concluded that the decision-making process is generally the same for global and local food and at different food outlets. Product quality beliefs are valued by everyone all the time and in the overall population convenience beliefs are more valued than environmental or social sustainability beliefs. Furthermore, attitudes guide purchase intentions which in turn prompt behaviour, though variations did differ greatly among the local food outlet types. The effect of concern and Food-Related-Lifestyle remain ambiguous, as at some outlets an effect was shown, while at others no significant results were found. In the next chapter a possible explanation for these results, their consequences and possibilities for further research will be discussed in more detail, starting with the market implications of this study.

7. Discussion

7.1 Market implications

As both concern about the food provisioning system and Food-Related-Lifestyle (FRL) showed ambiguous results, these factors cannot be used to form an advise on which personality traits to target when marketing local food products. Instead the main marketing strength of this research lies in the belief valuation consumers expressed. Results showed the core attributes of local food to be freshness, health, taste and quality, these benefits should thus be emphasized when marketing local food at all times. However, the results also showed that some beliefs were more prominent at some outlets than at others. Local food outlets should thus, on top of focusing on the core benefits of local food, also focus on the unique selling points of their venue. For instance farm shops and CSAs should focus on social and environmental attributes, as these benefits are most closely linked to their venue. Supermarkets and health food shops on the other hand should focus more on convenience and time-saving.

While it is likely that outlets that score high on social contact should focus on these benefits and outlets that score low on time consumption should focus on convenience and time-saving benefits, in order to come up with a sound marketing strategy, outlets should perform a market investigation beforehand in order to uncover the benefits, but also costs that are specifically linked to their outlet. As the FRL cooking scripts dimension did show a positive direct effect on attitudes towards local food, it would be advised to also take this dimension into account during market research. This dimension might help to further uncover to what extent consumers priorities lie with convenience or whether enjoyment of cooking and trying out new foods would be a viable storytelling and engagement strategy for local food promotion.

While the strengths of this study lie in its exploration of the different local food outlets, their effect on the decision-making process and the inclusion of both situational and personal factors, it also had its shortcomings.

7.2 Limitations of technical design

7.2.1 Internal validity

There are some limitations to the methodology chosen that might affect the internal validity of the research. Firstly, a disadvantage of this data collection method is that questionnaires can lead to possible misunderstandings in interpretations since there is no possibility of probing. This happened at least once for the behavioural frequency variable, where a respondent emailed us to notify us of confusing phrasing, after which it was decided to transfer the behaviour frequency to a dichotomous variable. It is possible that this happened on other questions as well, although it is unlikely as items and questionnaire phrasings of other studies were used and answer categories mainly consisted of the standard Likert scale answer categories. Should we have done a pre-test of the questionnaire beforehand, some of the imperfections of the questionnaire might have shown up and we would have been able to formulate the behaviour variable differently. Due to time constraints, this was not possible, as otherwise it would not have been possible to administer the questionnaire at Wageningen University before summer break.

A second factor that might have negatively impacted the internal validity of this study was the readability and length of the questionnaire. Even though many items were already excluded from the final questionnaire versions, it still included many different factors and introductory texts to these factors. This likely has led to fatigue among participants and is a reason why the dropout rate of the study was quite high with rates between 25.2 at the CSA questionnaire version and 40.2% at the local supermarket version. Dropout rates after just reading the briefing and consenting to participate were already between 15.1 and 24.4%. These rates could have been lowered by making the questionnaires more visually pleasing and easy to read, by for instance highlighting certain words in the introductory texts. Especially the questionnaire where both the control and the local supermarket were measured could have benefitted from streamlining to make the distinction between the two presented outlets easier to distinguish for participants.

Having a high drop-out rate, which is likely due to fatigue is, unlikely to have affected variables that were measured early in the questionnaire, such as attitude, purchase intention, purchase behaviour and the belief system. Fatigue might have had an effect of the personality moderators; concern and Food-Related-Lifestyle, as these were mentioned in a much later stage in the questionnaire. Responses to these items might have been answered more quickly and less focused, although it was attempted to limit this as much as possible by reverse statements. Still the higher fatigue and drop-out rates at later parts in the questionnaire could have affected the significance of the concern and Food-Related-Lifestyle hypotheses, as both did not confirm their hypothesized factors and showed mixed results as moderators.

A third factor influencing the credibility of the results is that various respondents filled in multiple questionnaires, as it was encouraged to fill in multiples in order to gain a higher chance of winning the Tony Chocolonely's reward in the raffle, as one would be rewarded among each questionnaire version. This was done to increase the number of participants, as it was difficult to find an adequate number of respondents during the summer months. While the benefit of this was that a greater number of participants could be recruited, it also had some drawbacks. Respondents that chose to take multiple questionnaires already gained some knowledge on the objective of the questionnaire. This knowledge may have influenced them in their answers and in their response time. In total there were 6 respondents who filled in all four questionnaire versions, 7 respondents who filled in three versions and 15 respondents who filled in two versions. In total these 27 participants created 75 responses and with this created 17.2% of all questionnaire responses. Would they have only filled in one questionnaire version, their answers would have only comprised 6.4% of all responses. This meant their opinion and personality characteristics thus counted for approximately 11% more.

While these factors negatively impacted the internal validity of this study, the randomization check demonstrated that there was no selection bias and that randomization had been successful. Furthermore, as beliefs, attitudes, purchase intentions and purchase behavior were tested at the beginning of the questionnaire, it is unlikely that respondents already experienced fatigue. The conclusions from these hypotheses can thus safely be used for further studies or marketing research. Conclusions about the concern and FRL moderators have to be taken with a bit more caution, but were also already ambiguous to start with.

7.2.2. External validity

While the internal validity of the study was only somewhat affected by the methodology, the external validity of this research and its results were effected in a far greater amount. Since there was no sampling frame, there had to be relied on non-random sampling to acquire the sample. Due to the nature of the questionnaire distribution, on the Wageningen campus and through social media groups and platforms targeted at students, it was difficult to acquire a balanced sample from the population. This meant that the study ended up with a convenience sample of highly educated and environmentally-conscious young adults. The questionnaires have a disproportionately high amount of Wageningen University students as respondents, this results in an overall-bias towards higher-educated and more progressive viewpoints, as well as a below-average age of respondents. It is therefore likely that this resulted in a higher percentage of participants with a high concern for food provisioning issues and positive attitude towards local food.

This was reflected in the purchase behaviour of the participants. Previous research found that between 6-10% of the Western consumers buys local food on a regular basis (Weatherell et al., 2003). In this study between 25.9 and 56.7% indicated to buy local food at one of the four outlets. Since the answer categories were stated ambiguously, we cannot conclude how regularly local food is purchased at these venues. But it is striking that on average 42.2% of the participants stated that they buy local food, which is 4 to 6 times more than what Weatherell et al. (2003) found in their study. This is likely due to the heightened environmental inclination and availability of the four local food among the Wageningen sample. Even though this was the case, attitudes towards the control outlet were equal or even more positive than attitudes towards the four local food outlets. So even though Wageningen students likely had an enhanced interest in local food consumption this did not result in an extreme negative stance towards global food.

So while the conclusions from this study are valid, generalizability is limited. Even though a great variety of nationalities were included in the study, a large part of the sample consisted of students with a likely enhanced interest in local food consumption.

7.3 Recommendations for future research

While this study attempted to discover more of the underlying decision-making process of local food consumption by including a wide variety of personal and situational factors, many factors showed ambiguous results. It is therefore important that future research focuses more on these factors to uncover their true effects. For instance, future studies should test even more beliefs, in order to further verify which beliefs are core to which specific outlet and how these beliefs influence attitude formation. While the results of this study did proof that there are differences in perceptions of local food depending on the type of outlet that is selling it, many beliefs; both positive and negative; did not make it into the questionnaire, such as familiarity of the products or the amount of food waste. New studies could focus more on which perceived costs are associated with specific outlets and how these can be reduced or eliminated. On top of that future research should focus on investigating additional food outlets. The scope of this research was limited to four different local food outlets which, though covering a broad spectrum of local food outlet types, does exclude some types of local food outlets. For example, local food initiatives using vending machines, cooperatives and food box subscription services were not included in this research. As the results

showed that both the farm shop and CSA were often judged similarly, as were the local supermarket and health food shop, new research should investigate the differences between other outlets in combination with the either the farm shop or CSA and either the local supermarket or health food shop.

Furthermore, for future research on the consumers' decision-making process for local food provisioning outlets I recommend including a qualitative approach focussing on concern and Food-Related-Lifestyles through in-depth interviews to complement the qualitative approach as taken by this research. Adding a qualitative component allows for more complexity, especially in theorisation on people's motifs and perspectives, without losing the strengths quantitative research methods offer. As both concern and Food-Related-Lifestyles showed ambiguous results in this study, a more in-depth focus on these factors could show their true influence.

It would be recommended for future studies to choose one specific focus, be it either uncovering the beliefs structure or the influence of personal factors such as concern and Food-Related-Lifestyle on attitude formation. As this study attempted to investigate both, many belief and personal items had to be eliminated in order to prevent fatigue among the participants as much as possible. This resulted in ambiguous results for the personal factors. Future studies would therefore benefit from adopting a specific focus or increasing the scope and sample size of their research.

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9. Appendix

9.1 Questionnaire blueprint

1. Topic

Consumers´ decision-making process of purchasing local food at four different product outlet types.

2. Related research questions

GRQ: Which factors influence consumers' decision making when confronted with the local food outlets?

The specific research questions related to this are:
SQ1: To what extent do attitudes about local food at the various outlet types find their basis in the valuation of beliefs about local food and outlet types?

SQ2: To what extent are attitudes towards local food at the various outlet types translated into purchase intention of local food at the different outlet types?

SQ3: To what extent do purchase intentions of local food at the various outlet types lead to purchase frequencies of local food at those outlet types?

SQ4: To what extent does concern about multinational power and the environmental effects of the current food provisioning system influence the valuation of beliefs and their translation into attitudes?

SQ5: To what extent do Food-Related-Lifestyle factors influence the valuation of beliefs and their translation into attitudes?

SQ6: To what extent does accessibility context inhibit or support the translation of attitudes into purchase intentions and of purchase intentions into purchase frequencies?

3. Concepts / dimensions

Independent variables: Type of (local) food product provisioning channel
In the four questionnaires, the participant will be faced with two options. First an explanation of the control group; the non-local supermarket will follow, after which one local food outlet will be explained. The explanations will be based on the social proximity of the provisioning channels, the temporal proximity will not be mentioned yet, as this is part of the context variable.

"In this survey, you are going to answer some questions related to food provisioning and grocery shopping. Imagine you have several options for doing so.

"One option is to shop for food at a supermarket. This supermarket offers a wide arrangement of fruits, vegetables and other products from all over the world. The products contain the standard product information, such as ingredients, nutrition information and country of origin."

"Another (A second) option is to shop at another supermarket. This supermarket offers a wide arrangement of fruits, vegetables and other products from all over the world, but next to this also local fruits and vegetables and other products from your area. The products contain the standard product information, such as ingredients and nutrition information. Next to that they specify the exact farm from which the produce is from."

"Another (A third) option is to shop at a health food shop. This health food shop offers local fruits and vegetables and other products from your area. The products contain the standard product information, such as ingredients and nutrition information. Next to that they specify the exact farm from which the produce is from. The health food shop personnel have some contact with and information on some of the farms that provide the produce."

"Another (A fourth) option is to shop at a farm shop. At this farm shop the farmer sells their local fruits and vegetables. The products are unpacked and thus do not contain any product information. However, the farmer can provide you with information about the production methods."

"Another (A final) option is to shop at a Community-Supported-Agriculture farm (pluktuin). When you become a member of this farm you can harvest your own fruit and vegetables from the fields. Each year you pay a subscription fee for the produce that is going to be produced. You are regularly informed about the farm's policies, production methods and pricing and are encouraged to take part in decision making. The farm also regularly organises activities at the farm".

After each description, questions about mediator 2 and 3 will be asked.

Mediator 2: Overall attitude towards purchase at this venue
"If available to you how would you describe your overall attitude towards buying food at this venue?" 5-point scale ranging from "Very negative" to "Very positive".

Mediator 3: Purchase intention
"If available to you how likely would it be that you would choose to purchase your next week's groceries at this venue?" 5-point scale ranging from "Very unlikely" to "Very likely".

After answering these questions on the two outlet types, a few pages with questions on beliefs regarding food and food venues will follow.

Mediators 1: Valuation of beliefs
Beliefs were selected from the perceived benefits and perceived costs from the literature. Some items about store image were also added. Not all perceived benefits and costs from the literature could be included, since this would result in a too extensive list, therefore a selection of the most mentioned or most relevant items was made. The perceived benefits and costs are divided in two categories, those that are related to the food product and those that are related to the type of outlet. Costs associated with the food product is price, whereas costs related to the venue include inconvenient location, limited variety, inaccessible, time-consuming, wastes a lot of food, sells a lot of unfamiliar vegetables or fruits, inconvenient opening hours, far away from home, unavailable. The selected benefits related to the food product are freshness, quality, taste, food safety, trustworthy, good value-for-money, healthy, natural, authentic, environmentally sustainable, locally produced, free from additives and a low carbon footprint. The selected benefits that can be associated with certain venues are: it supports local farmers, it supports the local economy, it connects you with the producer, it is transparent about its practices, it is entertaining, it has helpful personnel, it has an active community of regular customers and it has a convenient store-layout. Some of the items were reversely stated in the questionnaire to prevent participants mindlessly scoring the items. The items are split up into two groups those related to the food product and those related to the venue. For each set of items an introductory text is displayed: "Keep in mind that you want to do some grocery shopping. You want to buy fruit and vegetables and possibly also meat and dairy products" after this a description of a food provisioning channel is depicted, following with "Please indicate how to what extent you think the products from this venue are" in case of the food product attributes and "Please indicate to what extent you think this venue…" in case of the provisioning channel attributes. Answers are giving on a 7-point Likert scale ranging from "Extremely disagree" to "Extremely agree". The order of the items was randomized through a list randomizer at random.org.

After this, separate pages with questions on context, concern, Food-Related-Lifestyle and demographics will follow.

Moderator 3: Context
Context includes the factors availability and accessibility. Availability will be measured through one of the beliefs items, asking participants the question "Please indicate to what extent you think this venue…", "Is available to you", with answers being able to range from "Extremely disagree" to "Extremely agree" on a 7-point Likert scale. Accessibility will also be measured as one of the beliefs items with the question "Please indicate to what extent you think this venue…", "Is inaccessible" and "Is closely located to your home". However, to assess the effects context can have on the attitude-purchase-intention-behaviour relationship, the two questions on attitudes and purchase intention mentioned before will be repeated. Participants will be asked "Imagine that this "name of venue" would be

on a "x" minutes' drive from your home", where "x" would be 5 for the CSM and LSM, 10 for the HFS, 15 for the FS and 20 for the CSA. Then they will be asked "How would you describe your overall attitude towards buying food at this venue?" and "How likely would it be that you would choose to purchase your next week's groceries at this venue?".

Moderators 1: Concern about food provisioning issues

The indicators that were used to measure this concept were mostly derived from previous research and partly new suggestions. Of the 14 concerns included in the questionnaire 8 were derived from the research by Weatherell et al. (2003) which proposed the following commonly cited problems of conventional food systems: "The role of supermarkets in the farming industry", "Overseas competition", "The number of local food shops", "The future of small farming businesses", "The role of the food system in health scares", "Food miles", "Reliability of government food safety information" and "Availability of information about where food comes from" (Weatherell et al., 2003). On top of that 5 more concerns were added "Wildlife preservation", "Water contamination", "Air pollution", "Resource conservation" and "Animal welfare" (Nie & Zepeda, 2011). Finally, one new indicator was proposed in relation to this research, which was "The disconnection between producer and consumer". Participants will be presented a randomized list of the 14 food system issues and asked: "Please indicate to which extent you agree with the following statements about the current way of producing food" on a 7-point Likert scale ranging from "Extremely disagree" to "Extremely agree" (Weigel & Weigel, 1978).

Moderators 2: Food-Related-Lifestyle

Food-related lifestyle consists of 5 dimensions. In the questionnaire, the focus mainly lies on the shopping scripts, meal preparation scripts, desired consequences and usage situations, since these seem most predictive and relevant for this research. In this research, the dimension higher order attributes is already included in "mediator 1: valuation of beliefs" and will therefore not be included in food-related lifestyle as well. Since in previous research the usage situation items had low discriminative power, we included two newly developed items in our questionnaire.

"Please indicate to which extent you agree with the following statements". A 7-point scale was used ranging from "Extremely disagree" to "Extremely agree".
- Shopping scripts indicators and statements:
    o Importance of product information: "I compare product information labels to decide which brand to buy" and "I compare labels to select the most nutritious food"
    o Joy of shopping: "Shopping for food bores me" and "I just love shopping for food"
- Meal preparation scripts indicators and statements
    o Looking after new ways: "I like to try out new recipes" and "I like to try new foods that I have never tasted before"
    o Enjoyment cooking: "Cooking is a task that is best over and done with" and "I enjoy spending time on cooking"
    o Convenience: "I prefer to use canned or frozen foods" and "I use convenience products for my cooking on a regular basis"
    o Spontaneity: "What we are going to have for dinner is very often a spontaneous decision" and "I always plan what we are going to eat a couple of days in advance"
- Desired higher-order attributes
    o Included in importance values.
- Desired consequences
    o Special diet:
        ▪ Treat illness: "I follow a special diet to treat an illness"
        ▪ Keep fit / health: "I follow a special diet to prevent certain illnesses" and "I try to pay attention to the amounts and types of food that I eat" and "I exercise regularly to keep fit" and "Please indicate in the text boxes …" "The number of times you practice a sport each week"
        ▪ Vegetarian: "Please indicate in the text boxes …" "The number of times you eat meat each week"
        ▪ Religion: "I follow a special diet based on religious reasons"
    o Social relationships: "Dining with friends is an important part of my social life" and "I usually eat dinner in front of the television"
The open-ended questions on keeping fit and meat consumption were posed at the end of the survey in a list with other open-ended questions.

Dependent variable: Behaviour

The dependent variable behaviour is measured as a frequency of purchasing (local) food at the five venues by the question: "At the moment, how many times per week would you say you do your grocery shopping at such a

venue?" with the answer categories; "Never (0 times per week)", "Sometimes (1-2 times per week)", "Regularly (3-4 times per week)", "Almost daily (5-6 times per week)", "Daily (7 times per week)" and "Multiple times per day (>7 times per week)".

Control variables: Demographics

Finally, as controlling variables and for the purpose of segmentation, demographic variables and other relevant control variables are included at the end of the questionnaire.

- Age: "Please indicate in the text boxes…" "Your age in years"
- Education: "What is your current or the highest degree or level of school you have completed?" Answer categories: high school, college degree (MBO/HBO), bachelor degree, master degree, other
- Income: "What is your yearly household income?" Less than €15.000, €15,000-$29,999 ___$30,000-$44,999 ___$45,000-$59,999 ___$60,000-$74,999 ___$75,000-$89,999 ___ more than $90,000, don't know / private
- Gender: "What is your gender?" Male, female, other
- Household composition indicators: children, marital status, household size. Children: "How many children below the age of 18 do you have?", "How many children aged 18 or older do you have?". Marital status: "What is your marital status?" Single, in a relationship, married, divorced, widowed. Household size: "Please indicate in the text boxes…" "The number of people you share your kitchen facilities with"
- Residency: Indicators: (parents) growing up in agriculture, current place of residency. (parents) growing up in agriculture: "Were your parents raised on a farm?" Yes / no, "Were you raised on a farm?" Yes / no. Current place of residency: "Would you consider your current housing location to be": rural, suburban, city, small town OR rural <15.000 inhabitants, small town 15.001-50.000 inhabitants, suburban 50.001 – 120.000, urban > 120.001
- Organic purchase frequency: "Please indicate in the text boxes…" "The number of organic food products you buy each week"
- Cooking frequency: "Please indicate in the text boxes …" "The number of times you prepare a meal from raw ingredients each week" and "The number of times you are responsible for dinner each week"

The questionnaires end with:
"That was the final question, thank you for your participation in this research. Please click on the arrow to finish this questionnaire. If you would like to receive the results of this study, please enter your email address down below".

4. Research population

Consumers who do their own grocery shopping and are in charge of food preparation

5. Inventory of main practical constraints

There is no sampling frame, so we have to rely on non-random sampling. Within the sample, participants will be randomly assigned to one of the four questionnaires. We might experience some problems getting participants from all demographic groups (age, education, income, residency, household composition, gender). Probably a high number of students will be taking the questionnaire. It might also be difficult to find respondents that live in rural areas or those with a low concern for food provisioning issues as it is likely that many respondents will be from the small town Wageningen. This might harm the external validity as they are not representative of the whole population. We will try to counter this by actively searching for participants that are underrepresented through the Facebook groups "Survey sharing 2016/2017", "Survey exchange" and "Dissertation Survey Exchange".

6. Orientation on questionnaire mode

Questionnaires will be administered online. The questionnaire will be made and administered through the survey programme Qualtrics. Questionnaires will be posted on Facebook and send to family and friends. On top of that, a room in the forum building at Wageningen campus will be booked where participants can fill in the questionnaire and will receive a small refund in the form of some snack when finishing the questionnaire.

9.2 Data analysis description hypothesis 1

To test the relationship between beliefs and attitude a simple linear regression analysis was performed. To prevent or lower problems of multicollinearity of the variables and to make the data more manageable, first a factor analysis was performed to reduce the 17 items to a few factors. The 17 belief items were entered as the variables and an exploratory factor analysis was performed to judge the number of factors that should be retained. One way of judging this is by looking at Kaiser's Criterion. Kaiser's criterion is based on eigenvalues and states that all factors that have an eigenvalue higher than one should be retained as these factors would explain a substantial amount of variation (Field, 2009). According to Kaiser's criterion, three factors should be retained as these all had an eigenvalue higher than one. In this case the first factor would explain 39.1% of the variation, the second factor would explain an additional 18.8% and the third factor would describe another 6.7% of the variation in the data.

Another way of judging how many factors should be extracted is by looking at the point of inflexion in the scree plot. Here the point of inflexion was at three factors. However, since only factors to the left of the point of inflexion are retained and the factor at the point of inflexion itself should not be included (Field, 2009), according to the scree plot only two factors should be extracted.

Since the two methods pointed at a different number of factors, it was decided to perform varimax principal component factor analyses both with two and with three factors. The expectation here was that three factors would be redundant and extracting two factors would be more appropriate, since adding the third factor did not explain a significantly greater amount of extra variance than a single item would. Since there are 17 belief items in the dataset, each item explains about 5.88% variance. Adding one additional factor, so extracting three factors instead of two, explained 6.7% more variance, which is only a little bit more than one item could explain on its own.

Principal component factor analyses with varimax rotations, were performed for three and two factors. Small coefficients with absolute values below 0.300 were supressed, as factor loadings lower than 0.300 are typically judged to be unimportant (Field, 2009) When extracting three factors only three items; service quality, convenient layout and entertainment load on the third factor. Of these items, entertainment also loads similarly on both the first and second factor. Since this third factor only has two item loadings and since it only explains around 1% more variation than one item, it was decided to extract two factors instead. The reliability of this factor analysis was tested by looking at the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, which shows the compactness of the correlation pattern. A relatively compact pattern of correlations is depicted by a value close to 1. This analysis had a KMO of 0.908, which indicates compact correlations, meaning that the extracted factors could be judged to be distinct and reliable (Field, 2009).

The items that loaded the highest on the first factor were: convenient opening hours, close by venue, personal connection with farmer, support farmers, high variety of produce, time-saving venue, authenticity of produce, convenient layout, environmental sustainability and cheap. The items that loaded the highest on the second factor were: taste, product quality, health, fresh, safe, entertainment and service quality. For both factors the factor scores were saved for further analyses. The first factor was named "Convenience" beliefs, whereas the second factor was named "Product Quality" beliefs.

Next, one-way ANOVA's were performed to test whether these factor scores and their underlying attributes differed between the control venue and the four local food outlets. The assumption of homogeneity of variance was checked by Levene's Statistic, in more than half of the cases the assumption was violated. This was the case for the Convenience factor and the attributes: cheap, authentic, environmentally sustainable, fresh, convenient layout, support farmers, close by venue, convenient opening hours, personal connection, high variety and time-saving. In these cases, both Brown-Forsythe and Welch ANOVA tests were used, which all showed that the means of the groups were significantly different. Post-hoc tests were performed to see which groups differed from each other. Since sample sizes between the groups were unequal and variances were also unequal in most cases, most of the time Games-Howell post-hoc test was used. For the attributes where Levene's test did show equal variances, Hochberg's GT2 post-hoc test was used.

Table 12: Mean factor scores per food venue (Control Supermarket, Local Supermarket, Health Food Shop, Farm Shop and Community Supported Agriculture farm) for the two belief factors and their separate attributes. Results of ANOVA tests with Hochberg's GT2 (equal variances) and Games-Howell (unequal variances) post-hoc test. Subscripts indicate insignificantly different group means.

	Overall	CSM	LSM	HFS	FS	CSA
Factor 1 Convenience Beliefs	0.0000	0.7650	-0.4033	-0.7126	-0.9736 [a]	-1.0155 [a]
- Convenient opening hours	0.0000	0.6110	-0.4207	-0.6158 [a]	-0.7383 [b]	-0.7220 [a, b]

		Overall	CSM	LSM	HFS	FS	CSA
-	Close	0.0000	0.6708	-0.3159 a	-0.6462 a, b	-0.9399 b	-0.7937 a, b
-	High personal connection	0.0000	-0.7605	0.5373 a	0.6636 a	0.9400 b	0.9613 b
-	Support farmers	0.0000	-0.7302	0.6020 a	0.6768 a	0.8854 b	0.8241 a, b
-	High variety	0.0000	0.6152	-0.1360	-0.5872	-0.8720 a	-0.8654 a
-	Time-saving	0.0000	0.4907	-0.0480 a	-0.3351 a	-0.6713 b	-0.9121 b
-	Authentic	0.0000	-0.6530	0.4646 a	0.5799 a	0.8406 b	0.8586 b
-	Convenient layout	0.0000	0.3961	0.0014 a	-0.1610 a	-0.5058	-0.9302
-	Environmental sustainability	0.0000	-0.6455	0.4451 a	0.6772 a, b	0.7463 b	0.8686 b
-	Cheap	0.0000	0.3701	-0.3377 a	-0.8865	-0.3104 a	-0.0824 a
Factor 2 Product Quality beliefs		0.0000	-0.3072	0.1776 a	0.2729 a	0.3819 a	0.4178 a
-	Taste	0.0000	-0.2830	0.0582 a	0.1635 a, b	0.4938 b	0.4262 b
-	High quality	0.0000	-0.2205	0.1572 a	0.2821 a	0.2672 a	0.2262 a
-	Health	0.0000	-0.3038	0.1713 a	0.3148 a	0.3363 a	0.4674 a
-	Fresh	0.0000	-0.4925	0.2543 a	0.3920 a, b	0.6575 b	0.7519 b
-	Safe	0.0000	0.1085 a	-0.0495 a, b	-0.0371 a, b	-0.2335 b	-0.1062 a, b
-	Entertaining	0.0000	-0.3464	0.0570 a	0.1211 a	0.4779 b	0.7325 b
-	Service quality	0.0000	-0.1356a	0.0531 a, b	0.3753 b	0.2333 b	-0.1303 a

Figure 6 below presents a graphical representation of above table and shows the effect of local food on belief formation. The factors and attributes for which all four local food outlets significantly differed from the control venue are denoted by an *.
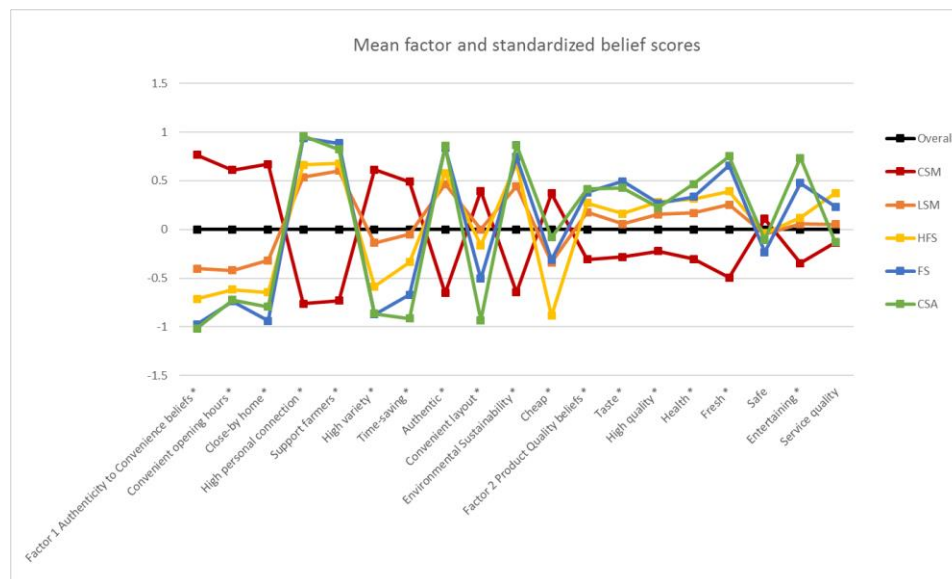

Figure 6: Mean factor scores for the two belief factors and their underlying attributes. * denotes that all local venue means are significantly different from the control venue mean.

When looking at a zoomed in version of the factor scores in Figure 7, it can be seen that the control supermarket scores significantly higher on the Convenience beliefs and significantly lower on Product Quality beliefs than the four local food venues. This was somewhat expected as the Product Quality factor includes items such as freshness, taste and quality, which local foods are highly credited for. It also makes sense that the supermarket scores higher on items such as convenience and price, but since the first factor also includes more social items such as personal connection and authenticity, it is remarkable that the control supermarket scores so much higher on factor 1 than the other venues. When looking again at table 4; it is seen that the first factor includes 6 convenience items and 4 authenticity items. This already explains to some extent why the CSM scores higher on factor 1. Another reason could be that the convenience items load more prominently on the factor and that SPSS therefore ascribes them larger component scores when calculating the factor score. This can be confirmed from the Component Score Coefficient Matrix table. From this it can be concluded that the Convenience items are higher represented than the authenticity items in the "Convenience" factor.

Figure 7: Mean belief factor scores. * denotes that all local venue means are significantly different from the control venue mean.

9.3 Data analysis description hypothesis 3

To test the hypothesis that purchase intentions lead to purchase behaviour, participants were asked to indicate their purchase intention at the venue at a 5-point Likert scale, ranging from "very unlikely" to "very likely" and their shopping frequency at the venue at a 6-point Likert scale with the answer categories: "never (0 times per week)", "sometimes (1-2 times per week)", "regularly (3-4 times per week)", "almost daily (5-6 times per week)", "daily (7 times per week)" and "multiple times per day (>7 times per week)". So, while originally both purchase intention and behaviour frequency would be considered to be continuous data, it was decided to recode behaviour frequency into a binary variable. The reason for this being that in retrospect the answering categories for behaviour were considered to be ambiguous. This was prompted by one respondent who send an email saying: "I was missing the question: "how often do you shop per week?", since I only do my grocery shopping once per week, I had to fill in that I "sometimes" visit a supermarket, making it seem like I do not shop there very often, while I get 100% of my groceries at the supermarket". This shows that the phrasing of the behaviour answer categories was confusing and incomplete for this respondent and it is likely that this occurred for other respondents as well. A better phrasing for this question would have been to let respondents indicate their behaviour frequency at the venue in percentages. However, by recoding behaviour frequency into a no / yes variable, it is still possible to perform a regression analysis and say something about the purchase intention-behaviour relationship. Thus, the behaviour answer category "never (0 times per week)" was recoded into no (0), and the remaining answer categories; "sometimes (1-2 times per week)", "regularly (3-4 times per week)", "almost daily (5-6 times per week)", "daily (7 times per week)" and "multiple times per day (>7 times per week)" were recoded into yes (1).

For the interpretation of the variability in purchase behaviour, the Nagelkerke R^2 was selected, instead of the Cox and Snell R^2. Since the Nagelkerke R^2 runs on a scale from 0 to 1, whereas the Cox and Snell R^2 only runs to 0.75, it is more similar to the adjusted R^2 used in previous linear regression analyses and therefore easier to compare to previous data.

9.4 Data analysis description hypothesis 4

To test the hypotheses that environmental- and multinational concern moderate the beliefs-attitude relationship, first explanatory factor analyses were performed. Here it was expected that two factors would show up, one factor reporting concern about the environmental effects of the food provisioning system, including the items "food miles" and "greenhouse gas (GHG) emissions", and one factor describing concern about multinational power, containing the items "future of small farming businesses", "role of supermarkets", "amount of local shops" and "disconnection between producer and consumer". However, when performing an exploratory factor analysis (KMO = 0.848, p = 0.000), both Kaiser's Criterion and the Scree plot pointed at one factor instead of two. Still, a principal component factor analysis was performed with two factors. According to this analysis factor (1) would contain the items "future of small farming businesses", "role of supermarkets", "food miles" and "amount of local shops" and factor (2) would contain the item "disconnection between producer and consumer". The item "greenhouse gas emissions" loaded on both factors, but higher on factor one than on factor two. It was decided to test the reliability of these factors, including GHG emissions on both factor one and two. The internal consistency was checked through Cronbach's alpha. Factor one showed to be highly reliable, with an alpha of 0.810, adding the item GHG emissions improved the reliability to 0.824. Factor two turned out to be less reliable with an alpha of 0.455. Even though the exploratory factor analysis pointed to these factors, the original hypothesized factors were also tested on their reliability. In this case the concept of "Environmental concern" had an alpha of 0.675 and the concept of "Multinational concern" an alpha of 0.700. While these values are quite high, they are considerably lower than the Cronbach alpha of our previously extracted factor (1). As both Kaiser's Criterion and the Scree plot suggested to extract only one factor, the reliability of just one factor with all six concern items was also tested, which resulted in an α of 0.803. The reversed "disconnection" item showed the lowest inter-item and item-total correlation, deleting this item increased Cronbach's α to 0.824. Since both Kaiser's Criterion and the Scree plot suggested to extract only one factor and since its reliability is higher (α = 0.824) than when using two factors, the mean of the five concern items, excluding "disconnection", was taken to form the concern construct. The disconnection item will thus further be deleted from this research. Deleting this item slightly lowered the KMO from 0.848 to 0.837.

The second part of the preparatory analyses involved centring, which was used to prevent problems of multicollinearity that could arise when creating the interaction terms for the moderator. The concern construct was centred by subtracting the mean construct score of 4.6537 from each concern construct value. The centred concern construct and the belief factor scores were multiplied to create the interaction terms. Simple linear regressions were performed for each venue separately and for the local and all venues grouped together. Problems of multicollinearity were tested by looking at the Variation Inflation Factors (VIFs). Most variables showed low VIFs, the only two variables that showed somewhat higher VIFs ranging between 1.555 and 8.867 were the centred concern variable and the interaction variable of convenience beliefs and concern. These two variables were especially higher for the farm shop and CSA, for the other venues all VIFs were below a value of 5. According to Andy Field (2009), one should only start worrying about multicollinearity when the VIF exceeds a value of 10. This in combination with the centring of the interaction terms confirms that there is no real problem with multicollinearity.

9.5 Data analysis description hypothesis 5

Food related lifestyle was measured through the seven subdimensions of "convenience", "joy of shopping", "new ways", "social relationships", "joy of cooking", "cooking frequency", each containing two items and "special diet" containing one item on eating meat. In the original research, the special diet "Vegetarianism" was tested by a dichotomous question "Are you vegetarian?" (Nie & Zepeda, 2011), in this study the question was reversed by asking for the frequency of meat consumption. One reason this was done was to create an interval item that could match the other FRL items, another reason was to be able to test differences between meat-eaters, flexitarians and vegetarians. Since the variable of interest was the frequency of eating vegetarian, as opposed to eating meat, a new reversed "Vegetarian frequency" variable was created.

Previous research categorized joy of shopping to the shopping scripts dimension, social relations and special diet to the desired consequences dimension and convenience, new ways, joy of cooking and cooking frequency to the cooking scripts dimension (Grunert et al., 1993; Zepeda & Li, 2006; Nie & Zepeda, 2011). It was assumed that the FRL items would mirror previous research and FRL would thus have three dimensions and seven sub-dimensions in this research. To reduce the items to these dimensions, exploratory factor analysis was performed. Sampling adequacy was checked and found to be adequate (KMO = 0.736) and Bartlett's test of sphericity was significant (X^2 (78) = 1383.844, p = 0.000) indicating that there was no homoscedasticity or equality of variances among populations. Both Kaiser's Criterion and a Scree plot were used to judge the number of factors that should be retained. According to Kaiser's Criterion, four factors should be extracted, the scree plot was a bit more ambiguous to interpret and pointed to either one or three factors. Based on these criteria and based on previous research, principal components analyses were performed to extract three, four and seven factors. Since the scale consisted of seven sub-dimensions, first a principal component factor analysis with seven factors was performed to judge whether these factors would match the seven sub-dimensions from the literature research. Some of the factors did indeed match the literature, these were joy of shopping, cooking frequency and special diet. However, the convenience, social relationships and new ways items were separated out over the remaining four factors. So, when extracting seven factors, these factors did not match the hypothesised sub-dimensions from the literature research.

The next step was to perform principal component factor analyses to retain either three factors or four factors. It was decided to extract three factors instead of four, to see if these would match the three hypothesized dimensions from the literature research. Principal component factor analysis, with varimax rotation was performed. The first factor loaded the shopping joy items, the cooking joy items and the new ways items, the second factor loaded the convenience items, the vegetarian item and one of the social event items, the third factor loaded the second social events item, and the two cooking frequency items. These factors did not match the hypothesized factors from the literature research, therefore it was decided to test the reliability of both the hypothesized as the extracted factors. Reliability of the extracted factors was found to be unsatisfactory, whereas the first factor had a Cronbach's alpha of 0.795, the second and third factor had reliabilities of 0.487 and 0.140 respectively. Reliability of the hypothesized factors was not much better, while the shopping joy dimension had high reliability (α = 0.819) and the meal preparation scripts dimension had adequate reliability (α = 0.680), reliability of the desired consequence dimension was insufficient (α = 0.363). A further look at the correlations between the social events items (0.139), the convenience items (0.243) and the cooking frequency items pointed out that they did not seem to be measuring the same sub-dimensions. Since the social events and vegetarian frequency item also had a very low Cronbach's Alpha (0.363), it was decided to omit the desired consequence dimension from this research, as the scale was deemed to be too unreliable. This meant hypothesis 5c would not be tested anymore. On top of that it was also decided to eliminate the convenience and cooking frequency items, since they showed low item correlation and lowered the reliability of the meal preparation dimension to which they should belong. Without these items the meal preparation scale had a reliability of 0.749, whereas with these items it had a reliability of 0.680. In this way two Food-Related-Lifestyle factors remained; Shopping Scripts (α = 0.819) and Meal Preparation Scripts (α = 0.749).

Variation Inflation Factors (VIFs) were examined at each regression analysis to check whether centring prevented problems with multicollinearity. At the overall analysis, where all five outlets were grouped together, no problems with multicollinearity were found. At the CSM, HFS and CSA, VIF values between five and ten were found for the FRL main effects and interaction terms with beliefs factor 1. At the farm shop the centred FRL constructs even exceeded a VIF value of ten, and the VIF values for the factor 1 interaction terms were close to ten, which means we likely still encounter problems with multicollinearity at this outlet. At the CSA, the centred shopping scripts construct also exceeded a VIF value of ten. So even though we the variables were centred, the results might still be impacted by multicollinearity.

9.6 Data analysis description hypothesis 6

Whereas, initially the moderating effect of both availability and accessibility on the attitude – purchase intention relationship would be tested, it was later decided to only test accessibility. The reason for this being to lower the number of variables in the questionnaire and to prevent confusion among the participants. In each questionnaire, participants were confronted with two outlets, one being the control supermarket and one local food outlet. Their initial attitudes and purchase intentions towards these venues were asked at the beginning of the questionnaire. After answering questions about their beliefs, their attitude and purchase intention were asked again, however this time the context variable was added. Availability was not used as context variable, since it was already suggested by the initial outlet descriptions that these venues were available to the respondents. Instead accessibility and time consumption were represented by driving distance. Based on the venue, a driving distance of either 5 (CSM, LSM), 10 (HFS), 15 (FS) or 20 (CSA) minutes was depicted, asking respondents to image the venue was x minutes away and asking them to indicate their attitude and purchase intention towards buying food at that venue. The original idea of investigating the moderating effect of context by creating performing a regression analysis with an interaction variable is not coherent with the measurement of the context variable. Since the context variable was measured by asking about the participant's attitude after being informed about the driving distance to the venue, this would result in an interaction variable where the original base attitude would be multiplied by the context attitude. Instead it is more sensible to look at whether context has an effect on attitude formation, by analysing whether attitudes are equal with and without context.