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Master Thesis

Does personal practicability set the moral limit?
A study on consumer motives for participation in
alternative food networks in the Donau-Iller-Region.

submitted by

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Affidavit

I hereby declare that I am the sole author of this work. No assistance other than that which is permitted has been used. Ideas and quotes taken directly or indirectly from other sources are identified as such. This written work has not yet been submitted in any part.

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*There'll be happiness after you
But there was happiness because of you*
– TAYLOR SWIFT, "HAPPINESS"

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Abbreviations

AFN	Alternative Food Network
CSA	Community Supported Agriculture
BMEL	Bundesministerium für Ernährung und Landwirtschaft (English: German Federal Ministry of Food and Agriculture)
LEL	Landesanstalt für Landwirtschaft, Ernährung und Ländlichen Raum (English: State Institute of Agriculture, Food, and Rural Areas)
ADK	Alb-Donau-Kreis
BC	Landkreis Biberach
RV	Landkreis Ravensburg

1 Introduction

The following chapters explain personal motivation and background to the topic, additionally an overview of the thesis' background is given.

1.1 Motivation

Growing up very close to a city, but in a community with many rural imprints, I chose the city over the rural most of the time and for most of the activities I was involved in. I preferred going to the city school over the one closer to home, I preferred the possibilities I was given in the city over the ones closer to home, I preferred the anonymity over the people recognizing me closer to home. Yet, for my entire life I never felt like a true city-person nor a true country-person. Naturally, I was drawn more to the former than the latter and when finally finishing my high school years, I chose city life full time. What I did not know was that the city noises never truly stopped, that public transportation still sucked and that despite endless choices, decisions still had to be made. Soon, city life tired me and I went back to living close but not too close to a city. This experience coupled with a passion for good food and making things from scratch, I chose a place and field of study not urban at all. My education in agriculture also made me realize that I would probably never become a farmer, yet the appreciation for food production and the people behind it grew tremendously. Already during my undergraduate years at a university where very convinced conventional farmers encountered very convinced environmental activists, I was intrigued by their disagreements, and eventually knew what came next for me. During graduate school the disagreements shifted, as in my little bubble most people belonged to the latter category, and I was intrigued by new things. The rural years of my studies prevented me from truly experiencing alternative ways to food procuring, while the urban setting of my graduate years combined with like-minded peers, and a curriculum educating me on alternative food networks (AFNs), my inner conflict about choosing city or country life rose again. When given the opportunity, I put the focus of my studies on rural development research to better understand rural systems and governmental processes. With these new impressions in mind, whenever returning to my hometown, I observed that many people found ways to engage in AFNs without having had my particular educational experience or knowledge, but I had also gained a new perspective on differences between urban and rural living. This made me especially question rural people's incentives, because very often AFNs are not located close-by, and it requires an extra effort to participate in AFNs. An effort very often including higher costs, more time, and the necessity for a car. When the time for this thesis came along, my perspective widened yet again, as it coincided with the emergence of the COVID-19 pandemic. During the initial phase, along with the health threat, a panic-

purchasing behavior developed, which in some cases lead to local temporary food shortages. People also avoided outdoor activities such as grocery shopping, which made delivery services peak. This behavior was also perceptible in AFNs, for example signing up as a new member for a vegetable box scheme was temporarily unavailable due to high demand. Short food supply chains, as found in many AFNs, additionally provided higher reliability for otherwise unavailable food groups. This brought up the question whether the COVID-19 pandemic was reason for AFN participation.

Food security was again newsworthy about two years after the initial COVID-19 crisis, with the 2022 Russian invasion of Ukraine. The local short food supply chains became yet again more popular, however prices also noticeably increased, bringing up the question whether AFNs were fallen back upon. However, these crises were not at all the initial motivation for the research as the original momentum developed earlier on, they nonetheless provided additional questions found important enough to be touched upon.

1.2 Background/ Research Problem

For most of human existence, people have resided in small communities and lived and worked as farmers to ensure their basic needs. With the industrial revolution, that changed, and people moved to the cities, where farming was not necessary to ensure life. Food was acquired through (monetary) trade, and often not directly from the farmer. Over the centuries, this habit increased and with that, people directly involved in farming decreased, while the farms themselves became less, but bigger in size. According to Uekötter (2012) and referring to Germany, in 1907 there were still 9.6 million people working in agriculture, but in 2005 the number fell to 960,000 people. Newer data suggests that these numbers decreased even more and 938,000 people are employed in agriculture in 2020. The decrease in human work capacity and the number of farms goes along with an increase of farm size and number of employee per hectare of agricultural land (Statistisches Bundesamt, 2021).

Over the centuries, many societal changes took place, this also had consequences that altered the way how food was sourced and what food was consumed. One approach to explain the historical development of the food system is through food regime theory, according to this, there were two eras in which hegemonistic patterns were clearly visible in the global food system.

The first food regime was dominated by European power states, importing staple foods from colonies and settler states, it lasted approximately from 1870 to the beginning of the First World War. The second food regime went from the time after the Second World War to the oil crisis in 1973, in which the United States controlled the world food system, especially through aid programs, which eventually lead to establishing American (food) brands worldwide (Friedmann & McMichael, 1989). Food regime theory is not as easily applicable to the time after 1973,

because during times of crises food regimes are typically not recognizable (no clear regime is visible during the World Wars as well). Several approaches exist to define today's food regime(s), however there is no clear agreement for either theory.

In the background of the COVID-19 pandemic and the 2022 Russian invasion of Ukraine, new crises complicate a clear depiction of applying new theories today. For this thesis, the theories about first and second food regimes help to understand the historical development of how the food system developed. The newer theories are beneficial to grasp the recent developments more relevant for this work but are not commonly agreed upon in the scientific community. Important for this thesis is the acknowledgement of AFNs by food regime theorists and its incorporation into their works, as it shows the significance of AFNs in today's food systems.

Leading up to the oil crisis in the 1970s was an increase in the use of agro-chemicals and extensive irrigation systems, as well as mechanized cultivation methods (Green Revolution). Eventually this led to environmental costs (i.e., biodiversity loss due to monocultures, soil erosion, and degradation) and social impacts (e.g., access to technology increased social inequalities, loss of manual workforce resulted in impoverished communities). Eating habits were influenced by industrialized movements as well; McDonald's and similar fast food restaurants were on the rise, and ready-to-eat meals suppressed fresh ingredients (Lawrence & Burch, 2007; Patel, 2013). However, a combination of economic, ecological, political, and cultural awareness within the society eventually transformed the trajectory of this industrialized development and a move towards several non-hegemonic alignments occurred (Campbell, 2009). This can be explained with Beck's (1996) Reflexive Modernity, a previously trusting capitalist society (1950s and 1960s) is erupted by a series of (ecological) crises, which change the paradigm towards a less trusting, more reflecting society concerned about control and the distribution of risk. This society is more concerned and politically engaged, and one effect can be seen in the move to new social movements. Concerning food acquisition, this "new" society is attentive to the visibility of the relationship between food and food producer. Parallel to this changing behavior in society and perhaps related, the organic sector, whose roots go back to the 19th century, upsurged from the 1970s onwards, as did so-called New Food Social Movements, an early example is Fair Trade (established in the mid to late 1960s) (Kocken, 2003) and later Slow Food, both differ in structure and objective. Several movements followed, often much more loosely organized in AFNs, characterized in chapter 3.1.1.

This short historical and sociological overview of the food system and its development into today's status quo suggests, that in times of crises and profound change, people (as well as societies) rethink and revise their decisions, also in terms of food procuring. These crises or changes do not necessarily impact society as a whole, but change can also come to a person on an individual level, such as having a child, getting sick, or moving.

Agriculture as the first comprehensible step of food production (in a simplified concept, excluding preceding agribusiness sectors such as pesticide production), is a commonly known characteristic of rural areas. Further, rural areas can be distinguished from urban areas very effectively in structural analyses, with several indicators such as population density, accumulation of agricultural sites, or data about the availability of general provisional services. This information then helps to assess the development potential and transformational processes of both rural and urban areas. Such data also makes it possible to draw conclusions about present and past AFN structures in a region, as well as prevalent growth suggestions. Several attempts to identify people's motivation to engage in AFNs have been made, especially in urban North American settings and outside of times of crises.

The focus of this work lies in the assessment of the rural status quo in relation to AFNs and its rural consuming participants. First, this requires an investigation of the variety and distribution of food outlets in the study region through internet-based scoping. Second, semi-structured interviews are conducted with rural AFN participants (consumer side) to gain conception over people's motives to participate in AFNs. These motives and factors are then extensively arranged into categories with the help of previous literature, coupled with the new insights from the interviews. The results are discussed especially in relation to their uniqueness of focusing on the rural participants of AFNs, this is also one of the study's main contributions in the scientific field of AFN consumers' research. Mentioned in the conclusion is, among other aspects, how the progressing crises raise new questions to be investigated in future research, also with regard to changing consumer behavior and consciousness.

2 Conceptual Framework

This chapter introduces the research aims and research questions, as well as working hypotheses relevant for the remainder of the work. Additionally, this chapter creates an overview of the entirety of the thesis.

2.1 Aims

This work focuses on the motives people have when sourcing food in Alternative Food Networks, from the perspective of rural consumers. It also highlights the prevalent structures related to the presence of AFNs in three rural German administrative districts which serve as the study region. All this in the background of the COVID-19 pandemic and as the consequences of the 2022 Russian invasion of Ukraine begin to evolve.

The overarching aim of the thesis is to determine which set of motives predominate in the alternative food outlets of the three rural South-German administrative districts during times of crises. From this main goal, the following sub aims evolve:

1. Compiling alternative food networks in the study region and analyzing the given accessibility structures that might be important for people's motives when sourcing food from AFNs.
2. Identifying various motives people have when sourcing food.
3. Identifying the decisive motive for AFN participation and understanding how the motives influence each other.
4. Identifying the drivers and hindrances for AFN participation.

2.2 Research Questions

1. What opportunities arise for consumers to participate in AFN structures in the study region and what are the prevalent accessibility structures?
2. What are the different motives behind people's food sourcing choices?
3. Which motives are decisive for AFN consumers' participation and how do different motives influence each other?

2.3 Working Hypotheses

From these aims, several working hypotheses developed:

1. There are differences between the urban and rural areas of the region in terms of the distribution of AFNs.
2. There is a wide variety of AFNs in the study region, but with local differences.
3. Accessibility is a major influence for people when sourcing food.
4. For others, accessibility is only a minor argument when sourcing food.

5. There are two broad categories of motives people have: practicability and morality.
6. Personal practicability is the limiting factor and therefore sets the limit for the relevance of the moral.
7. When the personal practicability is stretched, the moral limit increases.

2.4 Outline

Motivation, background, and research problem can be found in chapter 1, the current chapter (2) includes the objectives, hypotheses, and research questions. The following chapter 3 gives an overview of the existing literature, especially relevant is previous research connected to AFNs, consumers' motives to participate in AFNs, and accessibility definitions important for rural AFNs. Chapter 4 introduces the theoretical framework for the thesis. In chapter 5, methods used for data generation are presented. Chapter 6 is the case study, giving background information important for the study region. Chapter 7 is used to portray the results of the research and they are finally discussed in chapter 8. Chapter 9 ends the thesis with the conclusion. Below, Table 1 gives an overview of the outline of the thesis.

Table 1: Overview of the thesis

Aim	Research Problem	Research Objectives	Research Questions	Hypotheses			Methods for data generation
Determining which motives predominate in the alternative food outlets of the three rural South-German administrative districts during times of crises.	1. Determining whether in times of crises the AFN structure in the study region changes.	1. Compiling AFNs in the study region and analyzing the given accessibility structures that might be important for people's motives when sourcing food from AFNs.	1. What opportunities arise for consumers to participate in Alternative Food Networks structures in the study region and what are the prevalent accessibility structures?	1. There are differences between the urban and rural areas of the region, which is reflected in the distribution of AFNs.			Literature review and internet-based scoping.
				2. There is a wide variety of AFNs in the study region, but with local differences.			
	2. Determining whether in times of crises the motivation to participate in AFNs is influenced.	2. Identifying various motives people have when sourcing food.	2. What are the different motives behind people's food sourcing choices?	3. Accessibility is a major influence for people when sourcing food.	4. For others, accessibility is only a minor argument when sourcing food.	5. There are two broad categories of motives people have: practicability and morality.	Semi-structured interviews with AFN participants (consumer side).
		3. Identifying the decisive motive for AFN participation and understanding how the motives influence each other.	3. Which motives are decisive for AFN consumers' participation and how do different motives influence each other?	6. Personal practicability is the limiting factor and therefore sets the moral limit.			
				7. When the personal practicability is stretched, the moral limit increases.			

(Source: own creation)

3 State of the Art

In the following, an overview of the current state of the art in the field of AFNs and the motives consumers have when participating is given. Additionally, knowledge about how spatial structures determine the trajectory of AFN development in a region is illustrated. The combination of the two subjects results in the foundation and knowledge necessary to fully answer the research questions.

3.1 AFNs and consumer motives

This chapter gives an overview of AFNs in general, of their participants and especially of the consumers. The main theme of the chapter, in addition to AFNs, are the motives consumers have when participating in AFNs, often this is divided according to the type of AFNs, which are also defined. To not be restricted in thinking that everyone would want to or could participate in AFNs, an additional chapter is dedicated to reasons people might have not to (be able to) participate.

3.1.1 Definition AFNs

According to Goodman and Goodman (2009), AFNs are:

new and rapidly mainstreaming spaces in the food economy defined by – among other things – the explosion of organic, Fair Trade, and local, quality, and premium specialty foods. In these networks, it is claimed that the production and consumption of food are more closely tied together spatially, economically, and socially. (p. 1)

The meaning of AFNs varies from author to author but also over the years, often, distribution and production methods are important factors for the classification of AFNs. While some describe the organic aisle in a regular supermarket already an AFN, others find the active engagement of citizens a prerequisite for AFNs. The latter is often detected in Community Supported Agriculture (CSA), food coops or farmers' markets.

A more comprehensive characterization can be found in Forssell and Lankoski (2014); these authors depict three elements to distinguish AFNs from non-AFNs: background characteristics, core characteristics, and outcome characteristics. Background characteristics relate to the "participants' non-conventional values and goals" that are summarized as "morality, commitment to sustainability and the "non-industrial" logic driving how AFNs are operated". The core characteristics are arranged in three sub-categories: increased requirements for products and production (focus on sustainability, biodiversity, and tradition), reduced distance between producers and consumers (spatially, related to the value chain and informative), and new forms of market governance (means of producing and distributing are subject to alternate

power and economy patterns). The outcome characteristics are based on “[s]trong relationships, exemplified by notions of trust and social embeddedness”, this is especially true for the “reduced distance in AFNs” (p. 66-67). It should be noted though, that not all AFNs have all indications of the characteristics collected by Forssell and Lankoski (2014) and they mention, that, as suggested by Watts et al. (2005), stronger and weaker AFNs exist. Watts et al. (2005) summarize the differentiation and strength of AFNs according to the type of alternative they present; either an alternative food offer (quality aspects, e.g. organic food), an alternative economic approach (e.g. farmers’ markets), or both.

Often, these networks are community-based organizations in which citizens actively engage in agricultural activities, both on the producer and consumer sides, with the aim to have more power over production and providing mechanisms in contrast to mainstream supermarkets. Renting et al. (2012) describe how for people involved in these networks, food moves beyond being a “commodity and object of economic transaction” (p. 290) towards socially and politically influenced behaviors with the aim to change the trajectory of food provisioning.

Because it is so heavily relying on citizens, some authors prefer the term civic food networks, instead of AFNs, they argue that AFNs as only an opposing development to mainstream food networks is a term too broad to accurately describe all the new developments around such networks (Renting et al., 2012).

AFNs are built upon the interaction between consumers and producers, often citizens acknowledging the urge to change the status quo become food citizens. Food citizenship is related to the ideas behind civic agriculture and food democracy, as they all draw on the importance of agricultural and food literacy and stress the significance of reduced distance between producers and consumers. Originally, it is rooted in the rural and represents an element of countermovements to conventional agricultural behavior, which is characterized by domination over nature, specialization, and competition which is expressed through production- and efficiency-oriented approaches, rather than harmonious actions towards nature, diversity, and community. Food citizens are aware of the magnitude of actively supporting local agricultural activities, by pledging allegiance to those with similar values, but also by expecting high-value food in return (Lyson, 2005; Petetin, 2020; Renting et al., 2012; Wilkins, 2005). Succeeding this illustration of what AFNs are, it becomes apparent, that many countermovements exist, but use different approaches to essentially achieve the same goal.

3.1.2 Types of AFNs and assigned consumer motives

The following chapter highlights existing findings of AFN participants’ motives and shows that research on AFNs has mostly been carried out in English-speaking countries, additionally, most of the research does not include all available types of AFNs, often, a few of the systems

in the area of AFNs are investigated and compared. The following gives an overview of the examined AFNs and the corresponding motives consumers have when participating.

In recent years, CSA programs became a prominent example of AFNs, they are described as an agricultural concept in which consumers carry part of the risk of farming by becoming shareholders, and in return receive regular benefits in the form of agricultural products (Allen et al., 2017; Hinrichs, 2000; Rossi et al., 2017). Allen et al. (2017) connected joining a CSA to increased health awareness, yet, they found that while health aspects were considered by the shareholders, it was not the top incentive to join a CSA. Reasons to enter a CSA were mostly connected to quality aspects and being embedded in the local food system. Similar results stem from various authors when examining local food systems, Zoll et al. (2018) investigated three types of AFNs in urban surroundings, namely CSAs, Food Coops and self-harvest gardens. The observed motives were divided into three general categories: self-oriented motives, community-oriented motives, and socio-political motives. Between the three types of AFNs, an uneven distribution of the importance of motives was detected; within the self-oriented motives, the quality aspect was important throughout the AFN participants, however, CSA participants found community-oriented motives, such as supporting the farmer more important than in any other group, people participating in food coops valued the social interaction with other participants especially high (also a community-oriented motive). Self-harvest garden members placed high value to the joy of gardening and spiritual experience thereof (self-oriented motive). Socio-political motives such as environmental reasons and political protest were named in all three AFNs, however a stronger representation could be found among participants of CSAs and food coops (p. 103). Food coops, also referred to as solidarity-based purchase groups, are as defined by Brunori et al. (2011) “groups of consumers who purchase collectively through a direct relationship with producers, according to shared ethical principles” (p. 31). In self-harvest gardens, a plot of cultivated land can be rented from a farmer and during the vegetation period the renters take care of their section (watering, weeding, harvesting) (Vogl et al., 2004).

Carolan (2017) conducted his research over a longer period of time with members of CSAs, farmers’ market goers and people involved in food coops. The initial research was carried out before people became involved in these AFNs to see how their motivation changed over time, a second survey was conducted two years later. Taste and quality were among the most important in the first analysis, while still significant two years later, the emphasis shifted towards “support for local growers/ organizations or environmental sustainability” (pp. 215–217). Farmers’ markets are typically outdoors, and a place where farmers sell their products directly to the consumers, Hinrichs (2000) describes them as “settings for exchanges embedded in social ties, based on proximity, familiarity and mutual appreciation” (p. 298).

Motives for picking food at a farmers’ market are similar to those of other AFNs, such as the

quality of the products, supporting farmers and the local economy, atmosphere or environmental and sustainability reasons (Gumirakiza et al., 2014; Hu et al., 2021; Klimek et al., 2021).

When it comes to community gardens, defined by Guitart et al. (2012) as “open spaces which are managed and operated by members of the local community in which food and flowers are cultivated” (p. 364), participants are often attracted by the social features it provides, whether connecting to fellow gardeners or by providing excess produce to food banks (Teig et al., 2009).

Another approach to be part of the local food system is through fruit and vegetable box schemes. Often these are from local organic farmers and are distributed regularly (e.g., weekly or monthly) and directly from the farmer to the eater. Some farmers provide additional products they buy themselves and allow customers to build individual boxes. There are other approaches to this concept as well, some are more commercialized, while others may only use seasonal produce from their farm, this may also differ from country to country (see for example Brown et al. (2009)). In the study conducted by Brown et al. (2009), the authors distinguish altruistic and hedonistic motives for participation in box schemes. Overall, the results match the motives of other AFNs, and state quality of and access to local produce as the primary reasons for subscribing. Sustainability concepts are named as altruistic reasons for participation.

Some farmers offer their products in their own shops, directly at the farm, and customers can come by to purchase the offers according to the opening times. According to Lokier et al. (2021), quality aspects seem to be a major motivation to purchase food from farm shops, however generally most research has been done with the farm shop owners and not necessarily with their customers.

An example where the alternative shifts into the mainstream are organic supermarkets, however they are regarded to be representatives of weaker AFNs according to Watts et al. (2005), as the offer is alternative (i.e., exclusively organic food), but the economic approach is not. Here, a supermarket only counts as an AFN, if the sold products are purely organic, specific examples would be the German Alnatura or Denns BioMarkt retail chains, although also (often) small independent stores are taken into account, as well as the so-called Reformhaus stores (health food stores, typically selling organic or other alternative products). The following Table 2 summarizes the just highlighted AFNs and the corresponding participants' motives.

Table 2: Summary of the motives divided according to type of AFN (Source below)

Type of AFN	Participants' motives as identified in existing literature
CSAs	<ul style="list-style-type: none">• Health aspects• Quality aspects• Being part of the local food system• Trust in producer• Acquiring knowledge• Social interaction• Supporting the farmer• Political protest
Food coops	<ul style="list-style-type: none">• Social interaction• Supporting the farmer• Environmental reasons• Quality aspects• Political protest
Self-harvest gardens	<ul style="list-style-type: none">• Joy of gardening• Spiritual experience• Quality aspects
Farmers' markets	<ul style="list-style-type: none">• Quality aspects• Supporting the farmer• Supporting the local economy• Atmosphere• Environmental reasons• Sustainability reasons
Community gardens	<ul style="list-style-type: none">• Connecting to other gardeners• Donating food to charity
Boxing schemes	<ul style="list-style-type: none">• Quality aspects• Access to local produce• Sustainability reasons
Farm shops	<ul style="list-style-type: none">• Quality aspects

(Source: based on Allen et al., 2017; Brunori et al., 2011; Carolan, 2017; Guitart et al., 2012; Hinrichs, 2000; Klimek et al., 2021; Vogl et al., 2004; Zoll et al., 2018)

This chapter is of special relevance for this thesis, as it already highlights motivations that are later used in the theoretical framework for establishing the categorization. Unlike here, the categorization will not be divided according to AFN but rather according to type of motivation. Commonly identified motives for AFN participation from this section are quality aspects in almost all AFNs, supporting the farmer, as well as the local economy. Other aspects can only be summarized in groups, for example as found in Zoll et al. (2018), self-oriented motives, community-oriented motives, or socio-political motives, these groups will later on be used as the starting point for the categorization of the motives for AFN participation.

3.1.3 Hindrances for participating in AFNs

Not all findings shed a positive light on AFNs, especially when it comes to social justice issues; Agyeman and McEntee (2014) claim, that AFNs are part of the mainstream food system, which is part of the capitalistic approach and therefore would not meet food justice criteria either,

because it mainly targets a privileged society (according to income, social class, ethnicity, etc.). While environmentally often praised, Bruce and Som Castellano (2016) argue, that AFNs can pose financial, mental, emotional, and physical difficulties for producers and consumers alike. Often, the reasons not to engage in AFNs are overwhelmingly bigger than those to participate (both on producer and consumer side). The authors explain that small-scale farming (as often the case in AFNs) requires more work that frequently goes unseen and unpaid, when compared to big conventional enterprises. For the consumers, in this case exclusively women, barriers included the socio-economic status, in which money acted as a constraint to join in on AFN activities, however some women found ways to compensate these issues through physical work on the farms. The employment status also hindered people from joining, especially long hours that would not allow for the additional workload alternative food procuring implies, however, “employed women who were actively engaged in AFNs would often get up early, stay up late or spend time on weekends provisioning food” (p. 411). Having a partner with different opinions about AFNs also is reason why some women did not participate. The presence of children is another explanation why some women would not partake, as it reduces their time and resources to engage in AFNs, additionally, “[older children] were difficult to please, and mothers [...] were more likely to report compromising their values, [...] because of children’s preferences” (p. 412). In their final analysis, Bruce and Som Castellano (2016) conclude, that producing food in an AFN and sourcing food through an AFN increases the effort and challenges when compared to conventional approaches.

Hindrances, as the opposing part of motives for AFN participation, are expected to be of relevance, especially when acquiring practicability aspects of AFN participation. Not all upcoming reflections from the interviewees are anticipated to be positive, therefore it is also important to be aware of reasons not to participate in AFNs.

3.2 Accessibility of rural AFNs

This chapter produces an overview of accessibility structures in rural areas and its connection to AFN development in these regions, with a special focus on Germany. The emergence of AFNs has already been explained in chapter 1.2, and should again be recalled for this chapter. First, accessibility is defined and eventually the evolution of AFNs and accessibility are brought together.

3.2.1 Definition of accessibility

A rather early but significant definition for accessibility comes from city planning and is specified “as the potential of opportunities for interaction” (Hansen, 1959).

Accessibility is a term generally used to define the interaction between people, transportation, and activities; individual accessibility varies a lot and is influenced by factors such as time and space (Cascetta et al., 2013; Geurs et al., 2012; Järv et al., 2018).

Accessibility is differentiated on various levels, in addition to the individual dimension, another related level is the social dimension that is determined by accessibility and can be measured by social inclusion/ exclusion, social equity, or social justice. Connected to these levels is also the measurement of transportation accessibility (e.g., walking or cycling) and therefore the perception of one's residential environment (Geurs et al., 2012).

Järv et al. (2018) bring in the idea of accessibility being a dynamic concept in which all three components – people, transportation and activities are dynamic in space and time. This approach is new in the way, that “[i]n location-based accessibility modelling, the spatial distribution of people has so far been regarded as the most static as it is commonly derived from residential areas” (Järv et al., 2018, p. 103), therefore the idea of accessing activities from places such as work are often neglected. The dynamics of transportation depend on the means of locomotion (on foot, bike, car, public transport, etc.); the distance may always be the same, but depending on the hour of the day, the time it takes to reach an activity may fluctuate according to volume of traffic. Other influences for transportation time may be the physical fitness of a person and the season, these are especially relevant for non-motorized transportation means. Activity dynamics are mostly determined by “their temporal availability – operating hours of the day, weekday schedule as well as the seasonal schedule” (p. 103). Activities can be all the things that someone engages in, such as work, school, leisure activities, but also food outlets and other service points such as health care facilities. To sum up this dynamic accessibility model; the static approach of the three elements people, transportation, and activities is renewed by directly “[combining] the strength of place-based accessibility with time-dependent spatial modelling” (p. 103).

Accessibility models are used in a broad range of disciplines, originating from city planning and geography in general, they can be found in social and behavioral sciences as well. They might touch upon but are not equal to the concepts of accessibility in terms of designing the environment in ways that it can be used by people with disabilities.

The German Federal Ministry of Food and Agriculture (BMEL) considers accessibility its own characteristic for the indication of a rural area. Particularly, it considers the accessibility to medical services, educational institutions, public service points, recreational activities, proximity to urban centers (various types according to size exist), as well as proximity to supermarkets and discounters as indicators for how rural an administrative district is (Thünen-Institut, 2022). The latter indicator is of considerable interest, although supermarkets and discounters are not looked at specifically in this work, but it shows, that the accessibility to food

outlets is an important dimension when analyzing prevalent accessibility structures. The Thünen Institute (part of the BMEL) defines accessibility here to be the maximum time in an administrative district to reach the closest supermarket or discounter by car, bike, or walking when taking home as the starting point (Thünen-Institut, 2018). This depiction is clearly not as dynamic as described by Järv et al. (2018) but comes with a more facile application than the method used by Järv et al. to find out the places people come from when accessing activities (in their case food outlets). Järv et al. use mobile phone data to identify someone's starting point and calculate spatial and temporal distance to the closest grocery stores, considering walking and public transport as their transportation means.

3.2.2 Spatial accessibility structures connected to the availability of AFNs

The following explains accessibility structures for Germany from a spatial perspective, it illustrates the general spatial structures, important for measuring accessibility. Spatial accessibility is especially highlighted here, as it is more complex than temporal accessibility. A special focus is given to elements used to distinguish rural and urban as this is a major influence for spatial accessibility. Furthermore, examples of differences between urban and rural AFN projects are featured.

In Germany, rural and urban territories used to be clearly different but also necessary to support each other, rural areas were responsible for producing food, and mining was necessary to produce mineral resources used for industrial production in the cities. The surplus of these rural resources was used to make urban progress possible. This dichotomy changed at the latest after the Second World War, when rural areas clearly fell behind urban places. This led to a change in employment, and rural people commuted to cities for work – mixing rural and cities even more. Distinguishing rural from urban became more difficult and the dichotomy transformed into an urban-rural continuum without clearly visible limits. Admittedly, this is not the case everywhere in Germany, amplifying the fact, that there is not one rural or one urban area, rather a variety of rural and urban places with similar economic, social and infrastructural conditions (Küpper & Milbert, 2020). A rural region might have several smaller towns, that might have areas that could be classified as urban but, in their whole, do not correspond to the urban category and therefore are part of a type of the rural classification rather than the urban one.

The German Federal Research Institute for Rural Areas, Forestry and Fisheries (Thünen Institute) identified 276 out of 361 German administrative districts as rural areas, accounting to 47 million people or 57% of the German population on 91% of the area. In their typification, they also include the socio-economic status to depict the living conditions in rural areas. Out of these two dimensions, the researchers developed four types of rural areas in Germany: very

rural and good socio-economic conditions, very rural and less good socio-economic conditions, less rural and less good socio-economic conditions, and less rural and good socio-economic conditions. This classification includes the 276 rural administrative districts, the others fall under “non-rural districts”. With their distinction, the authors show, that rural does not necessarily imply economically and/ or socially depressed. Clearly visible are east-west disparities, with the eastern parts of Germany not showing any rural areas with good socio-economic conditions. Regions with good socio-economic conditions are mostly in the south of Germany (BBSR, 2019; Küpper, 2016; Küpper & Milbert, 2020).

One of the most obvious specifics about very rural areas (in comparison to non-rural areas) is a higher willingness to cover greater distances (usually with a car). People adjust their needs to their living conditions and develop strategies to cope with possible (supply) shortages. Differences between those rural areas with good and less good socio-economic conditions are likely. For social infrastructure, the degree of rurality is more important than the socio-economic condition; the more rural (or the less dense settlements are) the less dense are infrastructural facilities, this results in less people being able to reach pharmacies, supermarkets, or schools on foot (Küpper & Milbert, 2020).

To better explain this concept, central place theory will shortly be highlighted. This system was originally developed by German geographer Walter Christaller in 1933. Over time this concept has been used for good and bad instances. Today, regional development planning in Germany is still referring to this theory of central places in its Raumordnungsgesetz, a federal law guaranteeing the provisioning of the German population with necessary installations in a well-accessible place in which several of these facilities are accumulated (Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen, 2022). Relevant for this research, are so-called Mittelzentren (“middle-order centers”), towns providing basic services such as education, health care, recreational activities, etc., this was already hinted at in the above paragraph. On the other hand, there are cities categorized as Oberzentren (“higher-order centers”), that fulfill extended public services in comparison to the Mittelzentrum; more specified and bigger variations of typical provisional services can be found there. It serves more people than a Mittelzentrum does (Ministerium für Landesentwicklung und Wohnen Baden-Württemberg, n.d.; Thünen-Institut, 2022). Room categories for towns and communities would also be available, but will not be explained any further, except, that public services are less than in the above-mentioned Ober- and Mittelzentren (using the German words, for lack of a fitting English translation).

Baldy (2019) points out, that in Germany many local food initiatives are connected to bigger cities like Berlin or Cologne, rather than smaller cities, that might be in otherwise rural surroundings. The author also suggests that the likelihood of finding people with similar views

regarding food is higher in cities than in lower populated places, which leads to local food initiatives taking place in urban areas more often. However, it should be clarified, that food initiatives and AFNs are not the same, here, the local food initiatives are rather a tool to connect various actors and influence the development of a city's food establishments, for example, through food councils.

The impression given by Jarosz (2008), regarding the Seattle metropolitan area, connects the rise of AFNs with urbanization and rural restructuring, especially in the sense that, while urban areas grow into the surrounding rural regions, the farming establishments are pushed further back or decrease in size, resulting in greater distances between rural farmers and urban consumers. The urban purchasers are of great importance, especially for farmers involved in AFNs, such as CSAs or farmers' markets, because of their unique demographics they incline to be especially attracted to "high quality, organic, locally grown produce" (p. 242). AFNs as opposed to the agri-food-industry tend to be built upon small-scale, family-relying structures. They cannot as easily adapt to structural changes like bigger enterprises, this results in more AFNs closer to the urban centers, due to the ability of big farms to relocate fast. Jarosz sums up: "[AFNs] emerge from political, cultural and historical processes, and they develop out of the interactions between rural restructuring and urbanization in metropolitan regions" (p. 242). In the Franco-Italian case studied by Lamine et al. (2019), the authors shed light on rural marginalized groups who typically cannot be reached through AFNs. However, through specially tailored programs it is possible to include them for example, through "solidarity boxes that are delivered to local poor families [...] and with an educational program about diets and food practices" (p. 165). Additionally, this project gives previously unemployed people a place to work and provides a reintegration program to ensure future job opportunities. The study shows that place of living and access to AFNs are not just related to living urban or rural but are connected to social (infra-)structures in the area as well.

This chapter highlights how urban and rural areas are interconnected and especially how the people of both settings depend on each other. Given the fact that agriculture is typically located in rural areas, this would be where AFNs are naturally to be expected. However, AFNs are often connected to more urbanized areas (Baldy, 2019; Jarosz, 2008), which also stands out in chapter 3.1.2 focusing on the various motives for AFN participation, with most of these studies taking place in urban settings or without particularly attributing attention to the urban or rural setting (Allen et al., 2017; Carolan, 2017; Klimek et al., 2021; Zoll et al., 2018). The importance of this distinction is highlighted here and is particularly applied throughout this studies' rural setting.

3.3 Theories and methods used in researching consumers' motives for AFN participation

Researching consumers' motives for AFN participation has been attempted numerous times; whereas most cases are not exclusively focusing on consumers and often only a single kind of AFN is considered. Often, when several actors are studied, the focus lies on the farmers or managers of the AFN and not on the consumers. Examples and highlights are given in the following chapter. The highlighted studies are the ones most suitable for comparison in this thesis, either because they focus on the same AFNs or because categorization is part of their research scope.

An example for research with urban consumers in three kinds of AFNs (CSAs, Food Coops, and self-harvest gardens) is given by Zoll et al. (2018). They aimed to determine urban AFN consumers' motives and assigned them into a consumer typology. Additionally, their goal was to "assess whether AFNs potentially lead to collective action with societal impact" (p.101). The research was conducted through interviews and analyzed with content analysis. Before developing the consumer typology, the authors divided the motives into three general categories, along with eleven subcategories, as shown in the following Table 3. It should be noted that some categories are more significant in some AFNs than in others.

Table 3: Motive categories as identified by Zoll et al. (2018)

Main categories	Subcategories
Self-oriented motives	Quality of the product Trust in the producer Acquiring knowledge Joy of gardening, spiritual experience Doing something meaningful Saving money
Community-oriented motives	Social interaction Supporting the farmer Sharing knowledge
Socio-political motives	Environmental reasons Political protest

(Source: own creation, according to Zoll et al. (2018))

For the typology, the authors oriented themselves to the identified categories and assigned the people into types according to what group of motives are prioritized by them. They identified lifestyle-oriented pragmatists, community-oriented conscious consumers, and convinced practitioners. The societal implications of AFN participation were generally rated rather low or insignificant by the interviewees and AFNs were considered to be a niche, part of a bigger movement (sustainability, ecology etc.) but not rising to mainstream popularity.

Another study focused on consumers' motives and different kinds of AFNs (CSAs, farmers' markets and food coops) was presented by Carolan (2017). The author aimed to compare

conventional food outlets and AFNs in terms of consumers' engagement and their reasons to participate in the local food scene. It was also aimed to discover changes in participation motivation before and after a specified period of time (two years), and how these changes manifest themselves. The AFN participants were surveyed and resurveyed via qualitative interviews, whereas the conventional consumers were questioned once via phone surveys.

Of particular interest for this thesis are the results of the motivations for buying food, which Carolan (2017) analyzed both from the perspective of conventional consumers and AFN participants.

Conventional consumers named better taste and healthier food as their most important reasons for participating in the local food scene. These were important for AFN participants as well, especially for first time participants in CSAs and farmers' markets. However when these participants were asked two years after their initial participation, support for local farmers and environmental sustainability were among the predominant reasons to (still) engage, whereas taste and health lost significance (Carolan, 2017, pp. 215–216).

A third study was conducted by Brown et al. (2009), studying the motivations and hindrances of consumers using fruit and vegetable box schemes in England and France by questioning them through cross-sectional surveys (socio-demographics, primary motivations, barriers, shopping habits) with identical questionnaires (as they had to be translated). The consumers tended to be "rather affluent compared with average earnings for their country" (Brown et al., 2009, p. 185). The authors categorized the motivations into altruistic (local produce, ecological commitment, natural/ organic production) and hedonistic (quality, convenience, budget) sections. As barriers to using the boxing scheme, wishing to eat produce out of season, high price, organizational issues on the producer side, surprise delivery, limited range, variable quality, and no traceability were named.

Morgan et al. (2018) conducted research on CSAs in four US-American states, both with members (consumers) and farmers. Their aim was to identify what would help CSAs to maintain member satisfaction. For the identification of the categories, they used the 4P marketing mix (product, place, price, and promotion). The idea for this research objective states that other AFNs (namely farmers' markets and subscription-based models) made it difficult for CSAs to compete. Their research focused on CSAs' functions for the communities they serve as well as how the CSA farmers handle the competitive structures and increased member demands. Both consumers and farmers were questioned through semi-structured interviews, an additional feature with the consumer interviews were modified choice experiments for different scenarios (based on two of the 4Ps). This approach is interesting for this research, as Morgan et al. (2018) did not work with categories as mentioned before, but used a marketing approach to divide potential motives for CSA participation (that are, nonetheless similar to often-used categories). The modified choice experiment also brought in

valuable information that could easily be gathered as part of the semi-structured interviews. As with the other studies, this paper suggests, that CSA members are rather affluent and are motivated by quality aspects as well as personal affection and willingness to support the farmers. For CSAs specifically, having children was an additional incentive to participate, as children can experience food in a different way compared to purchasing from supermarkets. The modified choice experiments were used for place and price and described scenarios in which the CSA has member discounts between 5 and 30% when compared to the supermarket price, but the travel time to the CSA might either be the same, 5 minutes, 10 minutes, or 15 minutes longer than it would take to reach the supermarket. For each of the 16 scenarios, respondents were then asked if they would purchase at the CSA. A similar set of 16 scenarios was presented, however this time the CSA produce has a markup instead of a discount and the travel time to the CSA is closer compared to the supermarket. Again, the interviewees were asked if they would purchase at the CSA. For the results, Morgan et al. (2018) stated that “when considering price and travel times relative to the supermarket, CSA members indicated interest in participating in a CSA for which there was a price saving” (Morgan et al., 2018, p. 12). For the other scenarios, “when CSA was priced higher than the supermarket, the largest price premium that most people were willing to accept was 20%” (Morgan et al., 2018, p. 13). However, people were more likely to accept higher prices from CSAs than they were compared to supermarkets, and “in fact, seven [out of 20] members indicated a willingness to purchase the CSA share under every price and travel time scenario” (Morgan et al., 2018, p. 13).

For a more general overview of the motives typically found in participants of AFN and their occurrence depending on the type of AFN, see chapter 3.1.2

The following Table 4 presents methods used in researching consumers’ motives for participating in all kinds of AFNs and with studies focusing on more than a single AFN actor. A deeper dive into these examples, and especially their results can be found again in chapter 3.1.2. To summarize the table, often when several AFN actors (farmers, managers, consumers) are the focus of the work, the farmers or managers are researched more deeply (mixed methods), than their consumer counterparts. When only researching consumers, more extensive interview practices are applied. The type of AFN only seems to play a minor role in choosing the method to investigate consumers.

Table 4: Methods for investigating consumer motives in AFN participation

Reference	Type of AFN researched	Method for consumer investigation
Allen et al. (2017)	CSAs	Shareholder survey with paired questions through online survey tool → distribution via E-mail (from CSA mailing lists)
Brown et al. (2009)	Fruit and vegetable box schemes	Cross-sectional surveys using identical questionnaires
Carolan (2017)	CSAs, farmers' markets, food coops	Surveying new AFN participants and resurveying them two years later through qualitative interviews, additionally, random phone interviews to represent conventional eaters
Gumirakiza et al. (2014)	Farmers' markets	In-person surveys
Hu et al. (2021)	Farmers' markets	Online survey via E-mail from GfK panel
Klimek et al. (2021)	Farmers' markets	Depending on participant: qualitative interviews, participant observation and dot survey
Lokier et al. (2021)	Farm shops	Semi-structured interviews with the farmers and quantitative online consumer surveys as convenience samples distributed via Facebook
Morgan et al. (2018)	CSAs	Consumers: semi-structured interviews with integrated modified choice experiment Farmers: semi-structured interviews
Teig et al. (2009)	Self-harvest gardens	Semi-structured interviews with community gardeners
Zoll et al. (2018)	CSAs, food coops, self-harvest gardens	Qualitative content analysis based on interviews with members of existing AFNs

(Source: own creation)

4 Theoretical framework

This thesis aims to determine consumers' motives to be participating in the local AFN community, thus it is necessary to explore pre-identified categories to tailor the data collection accordingly with the goal to receive more accurate results.

For the theoretical foundation of this work, mainly qualitative research to investigate consumers' motives for participating in AFNs is consulted. Particularly relevant for this work's objectives are those cases that focus mainly on consumer motives and do not mix their research with other AFN participants, such as farmers or managers. As hinted in the previous chapter (3.3), when examining multiple actors, consumers often tend to be studied via (online) questionnaires or dot surveys, and the results are often broad but less in depth. This research aims to gain more comprehensive insights into consumers' motives and consequently consumer-centered research seems more appropriate.

The major aim of the thesis, to determine the sets of motives that are decisive for AFN participation, is assessed through qualitative interviews with selected AFN consumers. The frame for these interviews is set through preliminary research, as conducted in the literature review.

The results from the literature review reveal major motivations for AFN participation to be often dependent on the type of AFN, however some aspects occur throughout all types of AFNs. Above all, quality aspects are mentioned noticeably often, as highlighted in the literature review. Other motives do not arise as repeatedly and are therefore better condensed into categories according to detectable common grounds, for this, especially the works by Zoll et al. (2018), Carolan (2017), and Brown et al. (2009) are considered.

Zoll et al. (2018) created three main categories for their eleven subcategories, however, these subcategories are tailored to the three AFN models they investigated (CSAs, food coops, and self-harvest gardens), and are therefore only partly relevant in this work. The three main categories and the subcategories apposite for the objectives in this thesis are as follows:

1. Self-oriented motives are described as instances when the participants expect advantages for themselves by participating in the AFN, including the product quality, trust in the producer, or acquiring knowledge.
2. Community-oriented motives are described as instances connected to social interactions between the AFN actors, for example, personal connections to the farmer or the exchange with people with similar interests.
3. Socio-political motives are described as instances when AFN participation is carried out "to influence environmental, social and political aspects, such as using less pesticides or the establishment of fair wages" (p. 105).

Carolan (2017) did not establish categories, but conducted his research in CSAs, farmers' markets, and food coops, therefore the motives are relevant for this thesis as well. Carolan (2017) did not specifically define the motives, but just gave general ideas from the participants to explain the meanings. Reason for participation included "better tasting", "healthier food", "support for local growers/ organizations", or "environmental sustainability" (p. 215).

Brown et al. (2009) conducted their research with participants of farmers' markets, and did, similarly to Carolan (2017), not develop categories, but rather listed the individual items. The six motivations were purchase of local produce, ecological commitment, natural, organic production of food, quality (taste, freshness, healthiness), convenience, and budget.

Both, the categories established in Zoll et al. (2018), and the motives in Carolan (2017) and Brown et al. (2009) are arranged into basic categories, especially the work by Zoll et al. (2018) is used for building the classification, however, the AFNs do not entirely correspond with the ones used in this thesis, therefore findings from Carolan (2017) and Brown et al. (2009) are included as well, by adding them to the categories as established by Zoll et al. (2018).

Missing in the motives extracted from literature are accessibility aspects, however these are especially relevant in the present work, due to its setting in rural areas and with rural AFN participants. For this Järv et al.'s (2018) work on dynamic accessibility concepts is consulted, especially attributing relevance to the elements of space, time, and transportation, that are considered particularly decisive for or against AFN participation. The dynamic of accessibility Järv et al. (2018) ascribe to space, time, and transportation is linked with the alteration people must adapt to when accessing certain activities, which are again also subject to change, for example in terms of location (space), hour of the day (time), or method of locomotion (transportation). More information on Järv et al.'s (2018) accessibility concept, as well as additional definitions of accessibility, can be found in chapter 3.2.1. These three elements are summarized in the category of accessibility, in addition to the ones identified by Zoll et al. (2018). This was found important, because accessibility was only a minor aspect in the existing categories from previous literature, if addressed at all, and it has been added as a relevant element to be especially considered in rural areas.

Another category not yet addressed are personal conditions that may influence AFN participation, emphasized should be household size, family/ household needs, and budget. This idea was presented in Bruce and Som Castellano (2016) as possible hindrances for AFN participation, and found important enough to include in the new categorization as well, however not exclusively as possible hindrances, but also as motivators, for example dietary needs or preferences of a family member that are best fulfilled in AFNs.

The five categories (self-oriented, personal conditions, accessibility, community-oriented, and socio-political) are further split up into two main categories; practicability and morality. These serve as the common ground, as suggested in the working hypotheses. Practicability is defined

here as the personal ability to carry out a certain activity, such as participating in AFNs. Morality are the principles concerning right and wrong, or good and bad behavior particularly in reference to others or the environment while actions such as participating in AFNs are carried out.

The categorization as just explained is compiled in the following Table 5:

Table 5: Motives for AFN participation as compiled from the literature review

Practicability			Morality	
Self-oriented	Personal conditions	Accessibility	Community-oriented	Socio-political
<ul style="list-style-type: none"> • Quality • Healthiness • Freshness • Taste 	<ul style="list-style-type: none"> • Household size • Family/ Household needs • Budget 	<ul style="list-style-type: none"> • Space • Time • Transportation 	<ul style="list-style-type: none"> • Supporting the farmer • Social aspects 	<ul style="list-style-type: none"> • Environmental reasons • Political protest

(Source: own creation)

For a better distinction between the different levels of categories, practicability and morality are the **main categories**, self-oriented, personal conditions, accessibility, community-oriented, and socio-political are the **sub-categories**, while the remaining elements are **examples** of the sub-categories.

For the motive categorization in this work, this categorization serves as the starting point, and is used for preparing the questionnaires.

For the analysis of the interviews, this categorization might be expanded and altered according to the participants' statements. Additionally, the categories (i.e., main categories, sub-categories, and examples) serve as the initial coding system for coding the interview transcripts but might also be expanded as the categories grow.

5 Methods

The following chapters describe the methodological aspects of the study and the analysis of the generated data to find answers to the research questions.

5.1 Case selection

The main goal of this thesis was to identify motives for AFN participation from the consumers' view. Possible motivations, hindrances, or factors were taken into account before interviewing started. Given the context in which this research was developed, attention was also paid to the possible influence of specific events, such as the COVID-19 pandemic and the impacts of the 2022 Russian invasion of Ukraine. However, the semi-structured interviews did not specifically address all these issues, room was left for the interviewees to bring them up, but without influencing them on the subject.

The main criteria for selecting the participants, besides residing in one of the three administrative districts, were firstly, that they were, or had been, involved in an AFN, independently of the type of AFN, and secondly, that they had a regular role in the food acquisition in their households. The latter rule was found to be important because the person mainly responsible for food acquisition was presumed to be more sensible about current circumstances of AFN settings.

Geographically, the study focused on the south German region of Swabia in Baden-Württemberg and specifically on three rural administrative districts, namely, Alb-Donau-Kreis, Landkreis Biberach, and Landkreis Ravensburg, the degree of rurality of the three administrative districts is not equal, which could also be observed during interviewing.

The study functioned as a snapshot of the present conditions but includes the ulterior motives which are often rooted in the past or spread into the future, although these particularities differ depending on the motive category.

5.2 Methods of data generation

The research of this thesis was twofold: underlying the main objective, to determine which set of motives predominates the AFN participation in the study region, lies the analysis of the AFN opportunities in the study region and the accessibility structures thereof. The latter required internet-based scoping to acquire an overview, necessary for the following consumer inquiry and especially relevant for the analysis and discussion part of the thesis. For the motive research the AFN consumers were questioned through semi-structured interviews. Users of all kinds of alternatives such as farmers' markets, box schemes, farm shops, and organic supermarkets were considered.

5.2.1 Internet-based scoping of AFNs in the study region

The study region's three administrative districts were researched through an extensive web-based scoping approach, starting from demographical and scenically or regional relevant facts to the specific analysis of AFNs in the study region. Demographical data could be best analyzed through the district administration's web presence or other Baden-Württemberg official web sites regarding these statistical facts. Information about the scenery and regional facts were collected through the Landesanstalt für Landwirtschaft, Ernährung und Ländlichen Raum (LEL) (English: Baden Württemberg's state institute for agriculture, nutrition, and rural areas). Other facts were collected again directly through the district administrations and more precisely through their agricultural departments.

The current AFNs, specifically all farmers' markets or weekly markets with farmers' market sections, fruit and vegetable box schemes, CSAs, and farm shops in the study region were captured through internet-based scoping. Not all could be found on the internet, hence the results might not show an all-encompassing overview, especially very small trading places were hard to catch. The search was mostly conducted through Google, but also social media platforms such as Instagram or Facebook were considered.

5.2.2 Semi-structured interviews

For the investigation of consumers' motives, a qualitative approach through semi-structured interviews was chosen.

Semi-structured interviews are a type of arranged interviews, in which an interview guide is prepared beforehand, and used "as a checklist to make sure that the key points are all discussed or it may be a list of questions that are asked in sequence" (Newing, 2011, p. 99).

The question guideline contains mostly open-ended questions that are used as just described, but follow-up questions can be added spontaneously when necessary to further enrich the conversation flow (Newing, 2011, p. 102). The interview guide, both in the German original and in an English translation, can be found in the Appendix.

Lengthwise, a semi-structured interview depends very much on the interviewee, but typically it is anything between 20 minutes and three hours, estimates are usually given before the interview. An estimation can for example be given by planning for a certain number of topics to be covered in the interview and also recommendations on how much time should be spend on each topic, additional time should be accounted for introductions and closing remarks as well as additions by the interviewees (Newing, 2011).

In this particular case, the interview guide consisted of six sections, with the modified choice experiment nestled in-between. The foundation of the guide are the two main themes, as introduced in the previous chapters, therefore, motivation, and accessibility are the overarching

subjects. Since this thesis focuses on the status quo as well as how people reached their decisions, the questions about motivation targeted both past and present.

In most cases interviewing took place in the interviewees' homes or in the interviewer's home. Interviews initially began with a set of participants who were known to the researchers (i.e., purposive sampling), and then a snowball sampling approach was used to identify additional interviewees, who also had experience, ability, and readiness to provide the required data. New interviewees were considered until no new information could be gathered and a saturation point was reached.

Before the interview started, the interviewees were informed about the purpose of the study, the approximate length of the interview, anonymity, confidentiality, and the further procedure of the interview, as well as the procedure that followed after the interview with the gathered information from the interviews. Moreover, consent was asked about the recording of the interview and participants filled out a form to have been informed on these regularities to ensure the procedure complied with the EU General Data Protection Regulation and scientific ethical standards. Recording was performed with the recording app "Voice Memos" installed on an Apple iPhone, recording lasted during the whole length of interviewing, including the filling out of the modified choice experiment and the questionnaire. Participants were encouraged to speak their mind freely and without feeling embarrassed, as well as given the opportunity to ask further questions about any aspect of the interview and thesis, and at any time.

After an introduction of both interviewer and interviewee, the thematic interview started with a section about motivations and expectations for participating in AFNs, this was followed by a segment about accessibility. Thereupon came the modified choice experiment to better understand, when price and distance were variables, which place of food outlet (supermarket or AFN) people would decide upon. The modified choice experiment, as introduced in chapter 3.3, consisted of two sets of scenarios, each made up of 20 small scenarios, totaling to 40 scenarios. In the first set, the interviewees were asked whether they would purchase at the AFN if the price at the AFN was lower compared to the supermarket. In the second set of scenarios, the interviewees were asked whether they would purchase at the AFN if the price at the AFN was higher compared to the supermarket. In both instances, the distances to AFN and supermarket varied. The modified choice experiments are explained in more detail in chapter 5.3.3. The tables with the scenarios were printed out for the participants and then talked and walked through with them, it was labelled by the researcher which choices they would make.

The interview was concluded with a final question about the decisive factor for participating or not participating in AFNs, to allow the participants to incorporate their thoughts from the modified choice experiment in comparison with their thoughts from the first part of the interview.

At the end, the interviewees had the chance to ask further questions, to add to their previous statements or to indicate unaddressed relevant topics important to them. Finally, the participants were asked to fill out a questionnaire with demographic questions.

5.3 Methods of data analysis

The following chapters describe the approach of analyzing the collected data. The analysis focuses on two major themes; web-based scoping and gathering the AFN structures in the study region followed by the analysis of the interviews and modified choice scenarios.

5.3.1 Qualitative analysis of the interviews

The qualitative analysis of the interviews roughly follows approaches as portrayed in Saldaña (2013).

Following each interview, first impression memos were written as “sites of conversation with [myself] about [my] data” (Clarke, 2005, as cited in Saldaña, 2013, p. 41). This was especially helpful when interviews could not immediately be transcribed, and the information served as a reminder of the interview setting.

Further memos were written throughout transcribing and coding to explain the meaning of new codes, why they were necessary, to sum up certain impressions of the interviewees, or more generally memos about particular conditions in the administrative districts in which interviewing took place.

Therefore, the memos served as reminders, to document decisions, or to point out further steps for the research with the accumulated data.

Followed by these initial memos, verbatim transcripts including time stamps were made using “MAXQDA Analytics Pro 2022”, this also served as the coding software, and was used for further memo writing, usually after transcribing and again after coding, sometimes just after coding. One interviewee would not allow the recording of the interview, therefore, hand notes were written during the interview and then transferred to MAXQDA as well. Left out from the transcripts were the conversations that took place during the modified choice experiment and the filling out of the questionnaires, except when statements relevant to the research questions were made.

Analyzing the questionnaires and the questionnaire-type interview questions was done using Microsoft Excel. Average values were calculated for age, household size, distance to AFN, and time to reach AFN. Other responses that qualified to being described statistically, were mostly described in tables.

5.3.1.1 Coding

The goal of this research was to identify the motives that inspire people to participate in AFNs. For this, preliminary research was conducted in the literature section of this work, this already highlighted some potential motivational categories. These then served as the initial codes for coding the transcripts. This deductive method was chosen to align with the theoretical framework, and was inductively expanded, when it became clear, that these initial categories or motives were not enough. New ones were added accordingly, sometimes in-vivo, sometimes paraphrased, to ensure a more extensive research emerged from the data itself (Saldaña, 2013). Of the 21 initial codes (including the main categories), a total of 42 codes were established at the end of the first coding cycle, however, one of the initial codes was never used and one was added after the first coding cycle. This aligns with Saldaña (2013): “your choice of coding method(s) and even a provisional list of codes should be determined beforehand to harmonize with your study’s conceptual framework or paradigm, and to enable an analysis that directly answers your research questions and goals” (Saldaña, 2013, p. 62). The original codes were in English, whereas many of the secondary codes were a mix of German and English, as interviewing took place in German and the codes were chosen according to which language provided the best fitting word for the meaning.

Saldaña (2013) describes numerous first cycle coding strategies depending on which kind of research is conducted, for this research not one particular technique was chosen but rather a mix, this is also justified by Saldaña (2013), and depends on how the research is constructed, he even goes so far and says methods can be “mixed and matched”, however this should not be exaggerated (Saldaña, 2013, pp. 59–60). Saldaña (2013) suggests to analyze whether the research questions are more of ontological or epistemological nature to determine which coding method(s) to use. Since this cannot easily be answered with an either-or question, and ontology and epistemology can also be viewed along a continuum, this question will be explored in the following.

Ontology is seen as the philosophy of existence and epistemology as the philosophy of achieving knowledge. In other words, ontology aims to know exactly what reality is, whereas epistemology aims to learn about reality by simplifying and consequently building an abstract version thereof.

With these definitions in mind, the research questions to be tackled in this work, or more specifically, the research questions relevant for coding are:

- What are the different motives behind people’s food sourcing choices? (2)
- Which motives are decisive for AFN consumers’ participations and how do different motives influence each other? (3)

For these research questions, results might not be accurately representing reality, since motives and decisions are extremely unique and therefore an infinite number of answers would be possible. To achieve the best solution, motives must be categorized, but this implies summarizing and therefore losing some of reality. This implies a more epistemological nature of the research questions, but since ontology and epistemology are seen on a continuum, the research leans more on the epistemological side, but ontological methods might also be applied to achieve the best way of learning about reality.

Categorized as suitable for epistemological questions by Saldaña (2013) is Descriptive Coding, a method focusing on entire paragraphs, rather than a line-by-line approach. Paragraphs get assigned words or short phrases, which function as the code, this is helpful to establish “basic vocabulary” (Turner, 1994, as cited in Saldaña, 2013, p. 88) and useful in the first coding cycle. This method was primarily used and when other methods such as In Vivo coding were applied, the passage-by-passage approach remained.

In Vivo coding has already been mentioned as a coding method used in the analysis of this thesis, Saldaña (2013) catalogs this method suitable for ontological questions. In Vivo coding uses the actual word(s) or phrase as spoken by the interviewees as codes, this allows to include colloquial, sub-cultural, or indigenous terms to better capture participants’ voices. It is described especially relevant for ethnographical studies with marginalized groups. In this thesis though, In Vivo coding was used very rarely and more to “keep track of codes that are participant inspired rather than researcher generated” (Saldaña, 2013, p. 93), therefore it is suggested to set these codes apart, for example through quotation marks. In Vivo coding is often used in grounded theory approaches, which this study might methodologically overlap with, but does not in terms of the research design.

Due to this thesis focusing on motivation to participate in AFNs, a suitable coding method, also cataloged for ontological questions was found in Values Coding, typically used to “reflect [on] a participant’s values, attitudes, and beliefs, representing his or her perspectives or worldview” (Saldaña, 2013, p. 110). Admittedly, values, attitudes, or beliefs are not the same as motivation, but the provided definitions of “value”, “attitude”, and “belief” parallel with what is meant with motivation. Values show the weight attached to what is researched, attitudes show “the way we think and feel” about what is researched, and beliefs show how values and attitudes are interconnected and how they were individually created by someone with unique social and emotional backgrounds (Saldaña, 2013, p. 111). This coding method allows for codes to be formulated before and during coding, which was an essential part of the study in the first place, as mentioned in both the theoretical framework and in the beginning of this chapter.

Finally, to conclude this chapter, coding did follow the approaches as just highlighted, but it was not always one method or the other, it was more a condensed version of the three

highlighted techniques together in one. Again, coding itself did not follow a line-by-line approach, as it is suggested in some grounded theory leaning methodologies, in which coding also plays an important role. The coding here was rather a way to scan through the transcripts with the intention to filter out all mentioned motives and findings to answer the research questions. The code categories and some of the codes were imposed a priori, other codes did emerge from the data and were categorized into one of the pre-established divisions as noted above and revealed in the result section.

5.3.2 Categorization of the motives/ codes

The initial concept of the motive categorization can be found in the theoretical framework, in chapter 4. Many categories needed to be expanded during coding as the original codes did not cover all aspects mentioned by the participants. This was done within the pre-established categories to keep new aspects within the original context. However, after coding, the codes were no longer viewed as codes, but rather as motives, hindrances, and factors for AFN participation. This distinction was necessary, because not everything mentioned by the participants that influenced their AFN participation was a motivation, the definition thereof as given by the Cambridge Dictionary is “enthusiasm for doing something” (Cambridge University Press, 2022). However, the sub-categories merely serve as captions for the meaning behind the participants’ statements which can be motivations, but sometimes are better described as factors, or even hindrances.

This changed perspective after coding, made recategorizing necessary, mostly, this was accomplished through more sections or renaming some sub-categories. To make this more comprehensible, the following Table 6 shows, with the aid of the practicability main category, how the new categorization works, this new concept is fully revealed in Table 13 of chapter 7.3.

Table 6: New categorization and its types

Practicability	Main category
Self-oriented	Sub-category
Quality	Section
Organic	Example

(Source: own creation)

5.3.3 Modified choice experiments and its analysis

One segment of the interviews, was a stated preference experiment, here called modified choice experiment, in which the interviewees were asked to ponder their willingness to participate in AFNs (typically the one they were already familiar with) under hypothetical market situations. This method was inspired by both McGuirt et al. (2014) and Morgan et al. (2018),

however did not follow exactly their approaches.

The miscellaneous choices were differentiated through price, distance, quality, and quantity, whereas the latter two were not directly included in the scenarios, but rather supplied as an understanding to what was different to a mainstream supermarket. The scenarios were depicted in two separate tables, one in which the scenarios applied to receiving a discount in the AFNs (-5%, -10%, -20%, -30%, and -40%) and one in which the scenarios applied to receiving a markup in the AFNs (+5%, +10%, +20%, +30%, and +40%). The former 20 scenarios were either the same distance compared to the supermarket or 5 minutes, 10 minutes, or 15 minutes further. The latter 20 scenarios were either the same distance compared to the supermarket or 5 minutes, 10 minutes, or 15 minutes closer. The distance scenario related to where and from where (i.e., home or work) people would usually go and it would take longer or faster to get there, respectively. The price scenario was constantly set at 15€ for the supermarket price in the AFN discount scenarios and constantly at 15€ for the AFN price in the AFN markup scenarios, hence in the former scenarios, the price dropped in the AFN scenarios, in the latter scenarios, the price dropped in the supermarket scenarios.

The scenarios were talked through with the respondents and the researcher indicated whether they chose the AFN (tick for yes, cross for no), consequently, the question for the interviewees remained the same for all 40 scenarios (with variation on price and distance). Most participants understood the scenario design rapidly and were able to share their responses without having to go through all 40 scenarios individually, however the standard approach was the individual run through.

Analyzing the modified choice experiments was done using Microsoft Excel, and the willingness to purchase from AFNs was calculated for all price and travel scenarios, which eventually resulted in two separate diagrams.

6 Case study

The study region comprises of three rural administrative districts in the South German federal state of Baden-Württemberg. The three districts are located in the south-east of the state, part of the Regierungspräsidium Tübingen, one of four district authorities in Baden-Württemberg. From north to south, Alb-Donau-Kreis (ADK), Landkreis Biberach (BC), and Landkreis Ravensburg (RV), all illustrated in Figure 1, below.

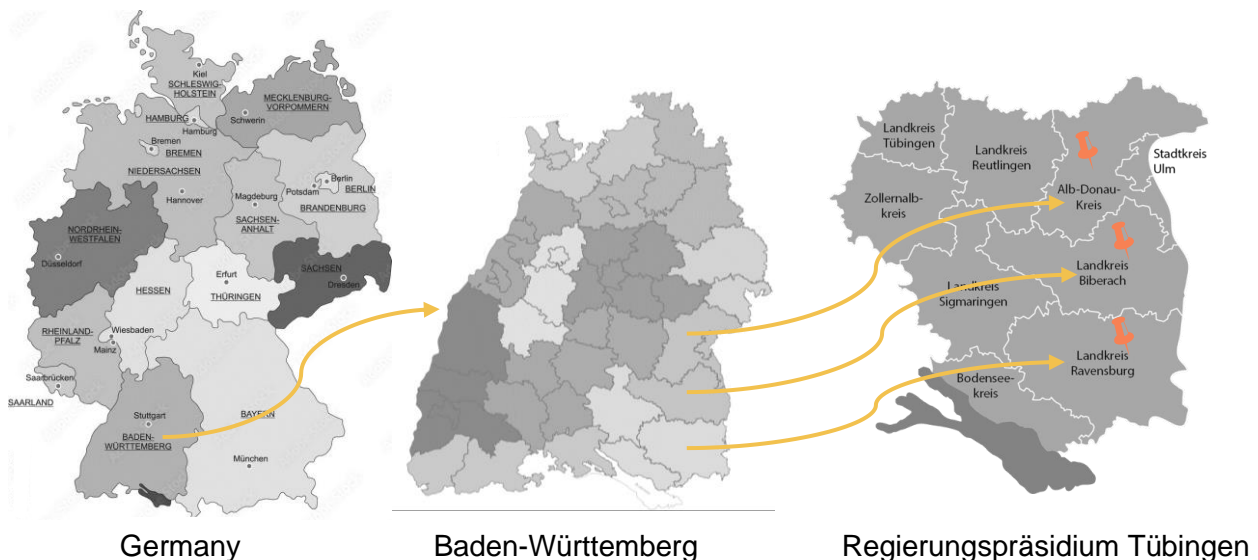


Figure 1: Location of the study region within Germany and Baden-Württemberg (Source: own creation, compilation after Adobe Stock (2022), Landeszentrale für politische Bildung Baden-Württemberg (2020), Regierungspräsidium Tübingen (2021))

The three administrative districts that comprise the study region are some of the most rural districts in the federal state of Baden-Württemberg (LEL Schwäbisch Gmünd, Abteilung 3, 2018) and are historically and culturally intertwined.

All three administrative districts are part of Upper Swabia, which is famous for its Baroque Route, with many churches, monasteries, castles, or other baroque buildings. Besides these architectural monuments, the landscape in this region is sometimes described as baroque as well (alps in the background), and the belonging culture highlights another aspect of this region: organ music in the big churches, drinking beer from the monastery and other Swabian traditions (Oberschwaben Tourismus, n.d.).¹

Information relevant for at least two districts will be highlighted in all applicable sections, but

¹ This paragraph was originally written by me for the course 853313 “Rural tourism” at the University of natural resources and life sciences (BOKU), Vienna in the academic year 2019/20 in the form of a project report (essay) with the title “Rural tourism: reflection of the course material”.

extensive explanation will only be carried out once. In the following, an individual introduction to the three administrative districts is given, especially in relation to the AFNs in the region.

Alb-Donau-Kreis

The ADK is the northernmost of the three administrative districts in the study region, and in the north borders two Baden-Württemberg administrative districts, in the east borders the city of Ulm, and two Bavarian administrative districts, the south borders two other Baden-Württemberg administrative districts, one of them BC.

The ADK is especially influenced by neighboring the city of Ulm, an independent city with 126,949 inhabitants (Statistisches Landesamt Baden-Württemberg, 2022a). This is particularly noticeable in five towns and communities who are direct neighbors with the city, these are classified as densely-populated spaces, in contrast to the remaining towns and communities classified as rural areas in the narrower sense (LEL Schwäbisch Gmünd, Abteilung 3, 2018). Altogether, there are 55 towns and communities in the ADK (Landratsamt Alb-Donau-Kreis, 2022b). The following Table 7 introduces the main demographic data for ADK:

Table 7: Main demographic data for ADK

Factor	Data
Size	135,855 ha (2021)
Population	199,732 inhabitants (2021)
Population density	147 inhabitants/km ² (2021)
Unemployment rate	2.7% (2021)
Commuting in	21,205 employees
Commuting out	51,155 employees

(Source: own creation, accumulated from Bundesagentur für Arbeit (2021a) and Statistisches Landesamt Baden-Württemberg (2021a))

In 2021, there were 199,732 people living in the 135,855 ha big ADK, in contrast, in 1961, it was 126,674 inhabitants, on approximately the same area (Statistisches Landesamt Baden-Württemberg, 2022a).

Every day ADK has 51,155 commuters going out and 21,205 commuters going in, in most cases the neighboring districts are destination or starting point. The city of Ulm is the most important destination for commuters going out (22,369 people), BC is in third place, RV in tenth place. BC is in third place for commuters coming in (Bundesagentur für Arbeit, 2021a; Landratsamt Alb-Donau-Kreis, 2022a).

In the ADK 11.6% of the area are areas constructed for settlement and traffic, 56.9% is agricultural land (arable land accounts to 40.8%, 15.9% are grassland (German: Grünland) , and 0.2% is area destined for the cultivation of vegetables, fruit, or flowers (German: Gartenland)), another 29.3% are forest area (Rieke & Wöllper, 2018).

In terms of scenery, the ADK is characterized by the Swabian Jura, north of the river Danube, and the Iller-Lech Plateau, south of the Danube, these are categorized as natural regions in

Germany. There are subcategories to these natural regions, and the ADK is home to eight of these. Natural regions are areas with geographically common ground, for example in terms of relief, vegetation, geology, or climate (Landesanstalt für Umwelt, Messungen und Naturschutz Baden-Württemberg, 2009). A more in-depth explanation of these natural regions is given in the section analyzing BC.

In the ADK, two agricultural regimes according to Wilson (2001) and Wilson and Burton (2015) can be assigned. The Iller-Lech Plateau area in the district is more productivism and yield-oriented, with intensive and specialized farms.

The natural region that includes the Swabian Alb is less focused on agricultural productivism, among other reasons, this can be inferred from its topographical situation and small-scale, fragmented cultivation, for example with goats for maintaining the juniper heaths.

In 2020 there were 1.651 agricultural enterprises in the ADK and the average farm size is 44.7 ha (Statistisches Landesamt Baden-Württemberg, 2021a). In 2021 there were 151 organic farms, corresponding to 7.3 % of all farms in the district, however these includes the number of organic farms in the city of Ulm as well (LEL Schwäbisch Gmünd, Referat 31, 2022a).

Landkreis Biberach

The Landkreis Biberach is south of ADK and north of RV, in the east it borders two other Baden-Württemberg administrative districts and in the west two Bavarian administrative districts. The following Table 8 introduces the main demographic data for BC:

Table 8: Main demographic data for BC

Factor	Data
Size	140,953 ha (2021)
Population	203,244 inhabitants (2021)
Population density	144 inhabitants/km ² (2021)
Unemployment rate	2.5% (2021)
Commuting in	25,870 employees
Commuting out	28,684 employees

(Source: own creation, accumulated from Bundesagentur für Arbeit (2021b) and Statistisches Landesamt Baden-Württemberg (2021b))

All 45 towns and communities are classified as rural areas in the narrower sense (Landkreis Biberach, n.d.; LEL Schwäbisch Gmünd, Abteilung 3, 2018). In 2021, there were 203,244 people living in the 140,953 ha big BC, in contrast, in 1961, it was 127,914 inhabitants on approximately the same area (Statistisches Landesamt Baden-Württemberg, 2022b).

Economically, BC is one of the most thriving districts in Baden-Württemberg, many manufacturing companies and medium-sized firms have their headquarters in the district. Especially represented are construction equipment firms, medical and pharmaceutical industries, or metal processing companies. BC has the lowest unemployment rate of all administrative districts in Baden-Württemberg and one of the highest gross domestic products

in the country. Every day BC has 28,684 commuters going out and 25,870 commuters going in, in most cases the neighboring districts are destination or starting point. RV is first place for people going out and second for people going in, ADK is third for people going out and first for commuters going in (Ballreich, 2021; Bundesagentur für Arbeit, 2021b).

In BC 11.8% of the area are areas constructed for settlement and traffic, 57.9% is agricultural land (arable land accounts to 34.9%, 22.9% are grassland, and 0.1% is area destined for the cultivation of vegetables, fruit, or flowers), another 27.9% are forest area (Rieke & Wöllper, 2018).

The scenery in BC is determined by three natural regions: the largest parts are defined by the Iller-Lech plateau (north), the Pre-Alpine Hills and Moorland in the south follows, and in the northeast, a small part belongs to the Swabian Jura natural region (Rieke & Wöllper, 2018). There are more subcategories to further distinguish the natural regions, however these will not be further explored. Instead, an introduction, highlighting the most important features of the main natural region categories (Iller-Lech plateau, Swabian Alb and Pre-Alpine Hills and Moorland) follows. It should be noted that not all subcategories are explained, only those relevant for the study region's three administrative districts, as the natural regions have different borders. The following information is relevant for all three administrative districts, but only highlighted here, as BC "hosts" all three relevant natural regions.

Iller-Lech plateau

This natural region belongs to a natural region group called Alpine Foreland, and more precisely to the Northern Alpine Foreland, it is a part of the alpine foreland, which was not glaciated during the last ice age. Today, the scenery is characterized by flat hills and gravel sedimentation along the riverbeds (originating from melting water from the last ice age) of significant rivers and streams in the region (Infodienst Landwirtschaft Baden-Württemberg, n.d.–b).

Other scenic features can be seen in several areas of extensive moorland, occurring especially in the RV region of the study. Most importantly the Wurzacher Ried, a nature reserve, and the largest raised bog in Central Europe (Council of Europe, n.d.; Infodienst Landwirtschaft Baden-Württemberg, n.d.–b; Naturschutzzentrum Wurzacher Ried, n.d.).

The Bussen, particularly important for the scenic characteristics of ADK and BC, is a limestone-covered mountain (767 m, more than 100 m higher than its surroundings), which was not "defeated" by glacier mass during the ice age, it is located in BC, however, stretches into ADK, and is a vantage point for views of the Alps.

Swabian Jura

The Swabian Jura natural region is especially relevant for the ADK, but also BC. It belongs, other than the Iller-Lech plateau, to the Scarplands on either side of the Upper Rhine Valley,

more precisely to the South German Scarplands, and to be even more exact to the Swabian-Franconian Jura.

Geologically, the Swabian Jura is made up of limestone, which formed during the Jurassic. Today, some of the limestone is mined and used as building material.

Scenic characteristics include karstification, which makes agricultural usage difficult in some areas, but not all, forests also occur in the Swabian Jura natural region. Scenery is very much dependent on lime level, soil depth, and altitude. Transhumance with sheep is still predominating on willows of the Swabian Jura (Infodienst Landwirtschaft Baden-Württemberg, n.d.–a).

Pre-Alpine Hills and Moorland

Most importantly, the Pre-Alpine Hills and Moorland natural region is relevant for RV, and to some extend also for BC. Like the Iller-Lech plateau, it belongs to the Alpine Foreland, but unlike the Iller-Lech plateau, it is part of the Southern Alpine Foreland.

During the last ice age, it was part of the glaciated alpine foreland; its underground is made of molasses, which reach heights up to 1,100 m.

In parts of this natural region, the influence of the Lake Constance is noticeable in terms of climate and its accompanied impacts on agriculture, for example making viniculture and fruit growing a possibility. As the name “Hills and Moorland” implies, hills and moorland are predominant, also in terms of scenery. Grassland is a very significant characteristic of the natural region, sometimes interrupted by lakes, merging into extensive moorland, or on hilly surroundings. Other areas are solely forested mountain ranges.

The RV section of the region is part of the Allgäu and therefore meadowland (German: Grünland) is predominant in some parts, while others are distinguished by arable land, combinations of the two can also occur, dairy farming is an eminent characteristic of the natural region (Infodienst Landwirtschaft Baden-Württemberg, n.d.–c).

In 2020 there are 1.633 agricultural enterprises in BC, the average farm size is 46.1 ha (Statistisches Landesamt Baden-Württemberg, 2021b). In 2021 there are 124 organic farms, which is 6.6% (LEL Schwäbisch Gmünd, Referat 31, 2022b).

Landkreis Ravensburg

RV is the southernmost of the three administrative districts in the study region, but also one of the most southern parts of Baden-Württemberg, very close to Austria, however not bordering it. In the north it borders BC, in the west it borders two other Baden-Württemberg districts, and in the east, it borders four Bavarian districts.

There are 39 towns and communities in RV, out of which two are classified as densely-populated spaces and three are outlying zones of densely-populated spaces, the remaining 34 towns and communities are classified as rural areas in the narrower sense (LEL

Schwäbisch Gmünd, Abteilung 3, 2018). The following Table 9 introduces the main demographic data for RV:

Table 9: Main demographic data for RV

Factor	Data
Size	140,953 ha (2021)
Population	203,244 inhabitants (2021)
Population density	176 inhabitants/km ² (2021)
Unemployment rate	2.9% (2021)
Commuting in	34,340 employees
Commuting out	33,485 employees

(Source: own creation, accumulated from Bundesagentur für Arbeit (2021c) and Statistisches Landesamt Baden-Württemberg (2021c))

Every day RV has 33,485 commuters going out and 34,340 commuters going in, in most cases the neighboring districts are destination or starting point. BC is third place for people going out and second for people going in, ADK is only mentioned for commuters going in on seventh place (Bundesagentur für Arbeit, 2021c).

In 2021 287,011 people were living in the 163,208 ha big RV (population density: 176 people/km²), in contrast, in 1961, it was 185,940 inhabitants (Statistisches Landesamt Baden-Württemberg, 2022c).

In RV 10.7% of the area are areas constructed for settlement and traffic, 57,7 % is agricultural land (arable land accounts to 15.3%, 42.1% are grassland, and 0.3% is area destined for the cultivation of vegetables, fruit, or flowers), another 27.9% are forest area (Rieke & Wöllper, 2018).

In RV, the scenery is mostly defined by the Pre-Alpine Hills and Moorland, yet small parts in the north and west belong to the natural region of Iller-Lech plateau (Rieke & Wöllper, 2018). More details about the natural regions are given in section about BC.

In 2020 there were 2,250 agricultural enterprises in RV and the average farm size was 38.2 ha (Statistisches Landesamt Baden-Württemberg, 2021c). In 2021 there were 434 organic farms, which is 15.4% (LEL Schwäbisch Gmünd, Referat 31, 2022c).

7 Results

The following chapters portray the results of this thesis. The structure follows the approach of the preceding logic, with the results of the web-based scoping first, followed by the insights as illuminated through the participant examination.

7.1 Web-based scoping of AFNs in the study region

In the ADK there are 70 farms officially registered with the district administration as direct marketers (Alb-Donau-Kreis, n.d.), however it is unclear how often these numbers are updated, additionally, some are known to the researcher that have not been listed with the district administration, so the actual amount might in fact be higher. The city of Ulm counts additional six direct marketers, which is of relevance given the tight connections between ADK and Ulm, although these are again only the official numbers.

In many towns and communities of the district, weekly markets and farmers' markets have been established. Data about market schedules, vendors, or offerings are a little more reliable, as markets usually take place in outdoor public spaces and are therefore directly connected with city and district administration. For the farmers' markets an association was established by 30 farmers from ADK, Ulm and other bordering districts who sell their produce on farmers' markets in AKD and Ulm. Five farmers' markets are listed in Ulm and ADK (Bauernmarktverein Ulm/Alb-Donau-Kreis e.V., n.d.). However, these do not include regular weekly markets, which might take place at the same times and spaces, but vendors might not be in the association. In fact, several smaller towns have "mini weekly markets" that are not known to the internet community and can therefore not be officially listed here.

The city of Ulm should again be regarded, because of the before-stated interconnectedness between the two districts, Ulm was also mentioned by the participants of the interviews, especially from ADK, but also from BC. For its proximity to ADK, Ulm is included here, but should also be taken into consideration for BC, it was never mentioned by interviewees from RV.

As mentioned above, direct marketing is especially relevant, in addition to farmers' markets, are farm shops, box schemes, CSAs, as well as organic supermarkets because they fit the AFN categories, relevant for this work.

The tourism department of the ADK, lists 19 farm shops in the district (whereas this list only includes farms belonging to the Swabian Jura region of the district), however, these are only selected farms with regional specialties and flagship-products, such as lentils, whisky, goat milk soap, or beer. While these products more or less describe what the region is known for, it does not accurately represent all farm shops, as these are often very small-scale. Farms do

not necessarily represent themselves and their shops or sales outlets online and therefore do not appear on Google searches.

People in the ADK also have the possibility to receive subscription-based vegetable boxes (typically organic, German: Biokiste), however, only one farm could be found in the ADK offering such a service ("Albgärtle"). It appears though, that two farms from neighboring districts serve ADK as well ("Albbiokiste" and "Bio-Mäck").

Panic-purchases at the beginning and during the COVID-19 pandemic in 2020 also made box-schemes more popular, and when trying to sign up in April of 2020 all three suppliers did not take new costumers, however, in August of 2022, more than two years later, signing up for subscription services was possible again.

There are no currently running CSAs in the ADK, one CSA has recently started new, after being closed for several years, however shares are not yet available, and it is unclear when they will be ready (M. Geiger, personal communication, November 17, 2021). Ulm and its neighboring Bavarian twin city of Neu-Ulm, do however, have one CSA each, in 2017 "SOLAWI Ulm" started with 40 members and one gardener on two fields, they collect their shares in a central place weekly (SOLAWI Ulm, 2021). "solawi donau-iller" (Neu-Ulm) started in late 2020 and seems to be a hybrid CSA/ purchasing group (solawi donau-iller, 2022)

Purely organic supermarkets are rather scarce in the ADK itself, there is a bigger organic chain supermarket in Ehingen (Denns BioMarkt), a medium-sized town in the ADK, more is available in Ulm and the neighboring Bavarian district of Neu-Ulm. Chains like Alnatura (twice), or Denns BioMarkt (once), as well as several independent stores and Reformhaus stores (health food stores, typically selling organic or other alternative products) are available to the inhabitants willing enough to travel to the city or neighboring Bavarian towns.

Following these results, it can be said that the ADK has various AFN offerings, in terms of one stop stores, the just mentioned organic supermarkets are most relevant. As explained in chapter 3.2.2, the concept of central place theory applies, and for the ADK, Ehingen and Blaubeuren/ Laichingen are mentioned to serve the Swabian Jura part (north of the Danube) as Mittelzentren, while Ulm and Neu-Ulm serve the Iller-Lech plateau parts (south of the Danube), but as a classified Oberzentrum also the entire administrative district as well.

For organic supermarkets it is reasonable to locate in a place where high customer traffic is expected and wanted.

The other AFNs mentioned in the ADK, are more wide-spread, except for the CSAs, which are in Ulm and Neu-Ulm, and therefore serve the district, but are not located in it.

Mittel- and Oberzentren are also the typical hosts for the farmers' and weekly markets in the ADK.

Farm shops are especially located in small communities and towns, where the farms themselves are established. The farm offering the box scheme in the ADK is also located in a

small community, whereas that is not as relevant because they deliver their boxes directly to the subscribers.

People in the ADK have plenty of opportunities to participate in different AFNs, however it depends on their willingness to adapt to what is available to them at their place of living, or whether or not they consider travelling for more opportunities. More opportunities might only be possible by travelling to a Mittel- or Oberzentrum, or travelling to a small community, depending on the place of living. Specific results from the interviews will be highlighted in succeeding chapters.

In BC there are 61 farms officially registered with the district administration as direct marketers (Fouad Vollmer et al., 2021), again this number might not accurately represent all direct marketers but only those known by the district administration. BC is, as well as RV, a Bio-Musterregion, this can be translated to organic model region, yet an official translation is not known. The general goal for these regions is to have more organic food from Baden-Württemberg, the individual emphases depend on the uniqueness of how the organic factors in the districts are made up. Typically the regional managements establish a network connecting farmers, manufacturers, regional marketers, and consumers (Bio-Musterregionen Baden-Württemberg, n.d.–a). This approach is strongly connected to another Baden-Württemberg marketing initiative called “Gläserne Produktion”, roughly translated as “transparent production”, often events for consumers to tour farms in their districts to learn about agriculture. Furthermore special organic or farmers’ markets are held, in which the various actors come together and share their offerings (Gläserne Produktion, n.d.). A particular example for BC is the Oberschwäbischer Bio-Markt (English: Upper Swabian organic market), a new event in the district, set up in an Upper Swabian surrounding, the monastery garden in the Ochsenhausen Abbey. The market aims to represent farmers, regional direct marketers, as well as organic-food associations, and other interregional actors such as the Bio-Musterregion itself. The market is supported by talks and tours, as well as organic foods and drinks (Bio-Musterregionen Baden-Württemberg, n.d.–b). Another BC-specific example are the BioRadRouten (English: organic bike tours), five different routes, touring three or four organic farms offering direct marketing (for picnics) and distances between 15 and 40 km (Bio-Musterregion Biberach Regionalmanagement, n.d.–b). Furthermore people can purchase regional- and organic-themed hampers in several farm shops of the district with organic products from the region (Bio-Musterregion Biberach Regionalmanagement, n.d.–a).

Besides the Bio-Musterregion offerings, common weekly markets with farmers’ markets sections are widespread in the district as well. Again, as already explained for ADK, these are typically held in the Mittelzentren of the district, for BC, these are Biberach an der Riß, Laupheim, and Riedlingen (Ulm is also Oberzentrum for BC) (Regionalverband Donau-Iller,

n.d.). Smaller weekly markets in smaller towns and communities exist as well, however with less market vendors.

Farm shops (all throughout the district) have already been mentioned in the direct marketing section while box schemes, CSAs and organic supermarkets have not. Three farms from BC offer subscription-based vegetable boxes, however more farms from neighboring districts offer their services for inhabitants of BC as well.

There is one CSA in BC, farming according to permaculture principles, however it was decided against including further aspects of this enterprise in order to keep this work scientific.

There are no organic supermarkets in BC (except for one Reformhaus and organic farm shops with an extended range of goods), therefore Ober- and Mittelzentren of bordering districts serve the region. There are two packaging free supermarkets in BC, one in Biberach an der Riß and one just recently opened in Laupheim, the latter one was referenced several times in the interviews.

Thus, people from BC have especially farm shops, farmers' markets, and box schemes to rely upon in terms of AFN participation, yet shopping at organic supermarkets requires travelling to another district, something that is also shown in the interview results.

Other than ADK and BC, there is no official data on direct marketers, only a list with 36 direct marketers using vending machines for their products, however some of them are not farms, but bakeries or butchers (Ernährungszentrum Bodensee-Oberschwaben, 2020).

Like in the other two districts of the study region, RV has many on-farm shops, however the data cannot be accurate for a lack of official statistical data, and incomplete web-based information.

Similar to ADK and BC, RV hosts a number of weekly (farmers') markets, especially relevant are the ones in the Ober- and Mittelzentren, for RV the Oberzentrum is made up of three towns, and includes Friedrichshafen, Ravensburg, and Weingarten, whereas Friedrichshafen is part of another (neighboring) administrative district. Mittelzentren are Bad Waldsee, Leutkirch im Allgäu, and Wangen im Allgäu. Additionally, to the regular weekly markets, the city of Ravensburg has an indoor daily market (Monday – Saturday) with 16 regional vendors (RV and neighboring districts), not all are farmers, but also bakeries or manufacturers (Bauernmarkt Ravensburg, 2022).

Other precisely defined farmers' markets happen occasionally or not as often as the weekly markets, for example monthly, or integrated in the weekly markets.

RV has five CSAs, three of them with a full or regular range of goods, one distributing apples and one of them offering chicken sponsorships where financers receive a weekly egg share, and can participate in chicken related events on the farm (Ährenhof, 2022; Apfelsolawi

Rußmaier, n.d.; Solawi Bad Waldsee e.V., n.d.; Solawi Ravensburg e.V., 2022; Unser Familienhuhn, n.d.).

Subscription-based vegetable boxes are also available in RV, four farms offering this service could be identified, additionally, just like in BC and ADK, farms of surrounding districts distribute in RV as well.

The Oberzentrum of the two cities Ravensburg and Weingarten (excluding Friedrichshafen) has two chain organic supermarkets (Denns BioMarkt and Alnatura), additionally five smaller independent organic stores exist. Bad Wurzach, Bad Waldsee, Leutkirch, Isny, Wangen, and Aulendorf each have one smaller and independently run store, sometimes a Reformhaus as well.

Since 2018 RV is, like BC and parts of ADK, a Bio-Musterregion, and offers multiple events and campaigns to make organic more visible in the district. This also aims to organic food catering in schools, kindergartens, and other food-serving communal institutions (Pressestelle Ministerium für Ernährung, Ländlichen Raum und Verbraucherschutz Baden-Württemberg, n.d.). Another example from RV is their meadow orchard (German: Streuobstwiese) initiative, called “Obstivisten” to maintain these biodiversity-rich meadows, by creating a product representing the value of meadow orchards, in this case apple honey vinegar (Geschäftsstelle natuRVielfalt – Biodiversität im Landkreis Ravensburg, n.d.).

All things considered, the web-based scoping of AFNs in the study region shows, that some AFNs, such as organic supermarkets are often in urban areas, while farm shops or CSAs tend to be more often in rural areas, however the distribution of CSA shares is often more centralized in urban areas with pickup locations. Subscription-based vegetable boxes are typically services provided by rural farms but picking up is irrelevant since it is regularly delivered to the consumers.

The distinction into room categories such as Mittel- and Oberzentrum is helpful to understand the logic behind deciding on a place for a supermarket or the location for a farmers’ market.

7.2 Empirical basis of the interviews

The foundation of the results stems from the participants of the interviews and therefore serves as the introductory chapter for the result section of the interviews.

Table 10 composes the variables, the categories, and the frequency of answers from the 17 interviewees, whereas some data are directly extracted from the semi-structured interviews, whereas the more demographic data are results from the questionnaires. Table 10 is meant to give an overview and subsequently is followed by an in-depth explanation of the participants.

Table 10: Empirical basis

Variable	Category (answer)	Frequency of answers, n = 17	Frequency of answers (%)
Gender (male/female)	Male	3	17.6
	Female	14	82.4
Age group of participants (years)	21-30	2	11.76
	31-40	3	17.65
	41-50	7	41.18
	51-60	3	17.65
	>60	2	11.76
Education (highest completed degree)	University degree	9	52.94
	Vocational training	6	35.29
	Graduated from school	2	11.76
Place of living	Urban	2	82.35
	Rural	14	11.76
	Urban and rural	1	5.88
Administrative district	ADK	4	23.53
	BC	5	29.41
	RV	8	47.06
Type of AFN participation (n=28)	Box scheme	6	21.43
	Farmers' market	6	21.43
	Organic supermarket	10	35.71
	Farm shop	6	21.43
Duration of AFN participation (years)	<2	1	5.88
	2-5	6	35.29
	6-10	4	23.53
	11-16	2	11.76
	>16	4	23.53
means of transportation	Car	16	94.12
	Car and bike	1	5.88
Distance to AFN	1-5 km	6	35.29
	6-10 km	6	35.29
	7-15 km	2	11.76
	>15	3	17.65
Travel time to AFN	<2 min	1	5.88
	2-5 min	2	11.76
	6-10 min	6	35.29
	11-15 min	4	23.53
	>15 min	4	23.53

(Source: own creation)

Gender distribution

Gender distribution for the questioning was not equally balanced, with 14 women, and 3 men, which translates to 82.6% women and 17.6% men. As for the unequal gender distribution, for the interviews it was sampled for the person in the household mainly responsible for the food acquisition, resulting in mainly female participants.

Age distribution

The average age of the interviewees was 46.8 years, the youngest participant was 29 years old, the oldest was 76 years old. This ensures a wide range of opinions and experiences in different stages of life.

Educational background

All participants finished secondary school, two interviewees did not indicate continuing formal education after that and mentioned having been obtained *mittlere Reife*, and *Abitur*, respectively. Six participants stated having completed vocational training and nine indicated having graduated from university.

Place of living

Interviewing took place in three mostly rural administrative districts, however bigger towns and cities within those districts were not excluded from the enquiry. It should be noted, that for this question the interview itself served as the foundation and not the response from the questionnaire (which asked for a postal code and place of living), because sometimes rural communities are incorporated into towns and cities and therefore would not necessarily account rural when only looking at postal code or place of living.

For this question, strictly speaking, multiple answers from one participant were possible, because someone can have several homes. This also was true for one participant, equally sharing their time between a rural, and an urban place, respectively. However, only the rural place was in the study region, but the researcher decided to count the other as well, as the respondent could provide insights to both realities.

Participant distribution in the study region

The administrative district was also inquired, and succeeds the place of living section, as it could account as the place of living as well. However, the results provide different information, such as the distribution of the participants in the study region. In this case, four participants were from ADK, five participants from BC and eight participants from RV. The person with two places of residence was only counted once, as the other place was not in the study region. The distribution shows a surplus of participants from RV, whereas the ADK and BC are both part of the Donau-Iller-Region and therefore more intertwined with each other as RV (see chapter 6 especially in relation with central place theory as explained in chapter 3.2.2), which justifies the slight overhang. Nevertheless, differences can be exemplified and compared.

Type and distribution of AFN participation

In the interview, AFN participation was inquired, however the question was open-ended, therefore multiple answers were possible. Everything defined as an AFN (see chapter 3.1.2) qualified as an answer. The results show four different types, namely box schemes, farmers'

markets, organic supermarkets, and farm shops. One person did not currently participate in AFNs, however claimed to specifically choose organic products, still this participant was not categorized into the four AFNs, even though previous AFN participation was indicated.

Six people participated in one AFN, eight interviewees participated in two AFNs, and two participants experienced three AFNs, this is illustrated in the following Table 11.

Table 11: Number of AFNs/Person

Number of people	Number of AFNs
1	0
6	1
8	2
2	3

(Source: own creation)

Box schemes, farmers' markets, and farm shops were each named six times, organic supermarkets were named ten times.

This expresses that people did not necessarily only participate in one AFN but chose several distribution channels for their food errands.

Duration of AFN participation

Most participants had at least 2 years of AFN experience, most people could only give estimates; sometimes values were not given numerically, but in expressions such as "since decades" or "forever". This made translating into numbers difficult, but in the two examples just given, they were assigned in the "more than 16 years" category. Others measured their participation in their children's ages, how long they were married, when they started studying or when their diet changed. This already hints some of the motivational factors for AFN participation.

Means of transportation

All participants used a car to reach the AFN, except for the cases when a vegetable box was delivered to the participants' homes. One interviewee's expression about using the bike for food errands:

Meist mit dem Auto, selten mit dem Fahrrad, aber ich muss es ja auch transportieren, von daher ist meistens das Auto das Mittel der Wahl (BC5, Pos. 30) [...] es ist auch mit dem Fahrrad machbar, dann hab ich halt das Transportproblem. (BC5, Pos. 40)²

² Usually by car, rarely by bike, but I also have to transport it, so the car is usually the method of choice [...] it can also be done by bike, but then I have the transport problem.

Sometimes similar challenges were stated, also in relation to public transportation:

[...] dann fährt hier am Wochenende eigentlich so unregelmäßig ein Bus, dass man das was man eigentlich möchte, nämlich öffentlichen Nahverkehr auch nutzen, also ich könnte das gar nicht so mit dem Einkauf, von Laupheim nachhause, da bin ich zu bequem, das würde ich sehr gerne tun. (BC2, Pos. 22)³

Again, this question was open-ended, multiple answers would have been possible, although the car seemed to be the primary means of transportation.

Distance to AFN

The highest distance to an AFN was 30 km, the lowest 1 km, however, most fell between 1 km and 10 km. Six participants indicated travelling up to 5 km, another six travelled up to 10 km, two interviewees drove up to 15 km, and three travelled more than 15 km. On average, people drove 9.74 km to an AFN, sometimes the underlying data were already in between two estimates, for which the average was then calculated, and the result then used for the final average calculation, these averages are the ones stated in Table 10. For example, people answered “these are between two and three kilometers”, or “to the farm shop about one kilometer and to the organic supermarket approximately ten kilometers”.

Travel time to AFN

The average travel time to an AFN was 13.12 min, sometimes the underlying data were already in between two estimates, for which the average was then calculated, and the result then used for the final average calculation.

People drove up to 30 min to the AFNs, the lowest was 2 min.

7.3 Motives behind peoples’ food sourcing choices and the organization thereof

Motives for AFN participation are woven as a red thread through this thesis and the newly gained results are revealed in the following chapters.

The pre-established categories, as introduced in chapter 4, served as the initial codes for analyzing the interviews, whereas practicability and morality were the main categories under which new codes were added to the ones made in advance. Codes also functioned as motive categories.

³ [...] then, the busses run so irregularly here at the weekend, that you can’t do what you actually want, namely actually using public transportation, so I couldn’t do that with the shopping from Laupheim back home, I’m too comfort-loving, though I would really like to do it.

The code system was the first draft of the motive categories and after coding appeared as shown in Table 12.

Table 12: Code system development

Practicability			Morality		
Self-oriented		Personal conditions	Accessibility	Socio-political	Community-oriented
Taste		Budget	Transportation	Environmental reasons	Supporting the farmer
Freshness		Family/ Household needs	Time	Political protest	Social aspects
Healthiness		Household size	Space	Diet	Direct contact to farmer
Quality		Adaptability	Convenience	(Regional) origin	Trusting the farmer
Organic	Fertilization		Availability	Waste/Packaging	
Naturverbundenheit ⁴			Education	Animal-welfare	Supporting the local economy
Gefühl ⁵					
Role Model			Habit		
Lebensgefühl ⁶					
Trust					
Curiosity					
Diet					

(Source: own creation)

The bold printed motives were the pre-established ones, the others were added gradually when coming up in the interviews. “Political protest” is printed in red, because it was never mentioned by the interviewees and therefore eventually deleted from the list of motives. The “quality” motive eventually required additional splitting, as “organic” or “fertilization”-related issues were mentioned frequently.

The following diagram in Figure 2 sums up the main categories of motives or codes, as well as the frequency with which they came up, and therefore the number of times they were mentioned. The exact number of times people mentioned these motives, are in the table included with the diagram, often motives were named multiple times. Not included in this diagram are “practicability” and “morality” as categories themselves for motives that were not further categorized into one of the five groups, with both categories being assigned twice. This figure shows the result after coding, the categories were later rearranged, and results changed accordingly.

⁴ Connectedness to nature

⁵ Feeling

⁶ Awareness of life through experiencing a certain atmosphere

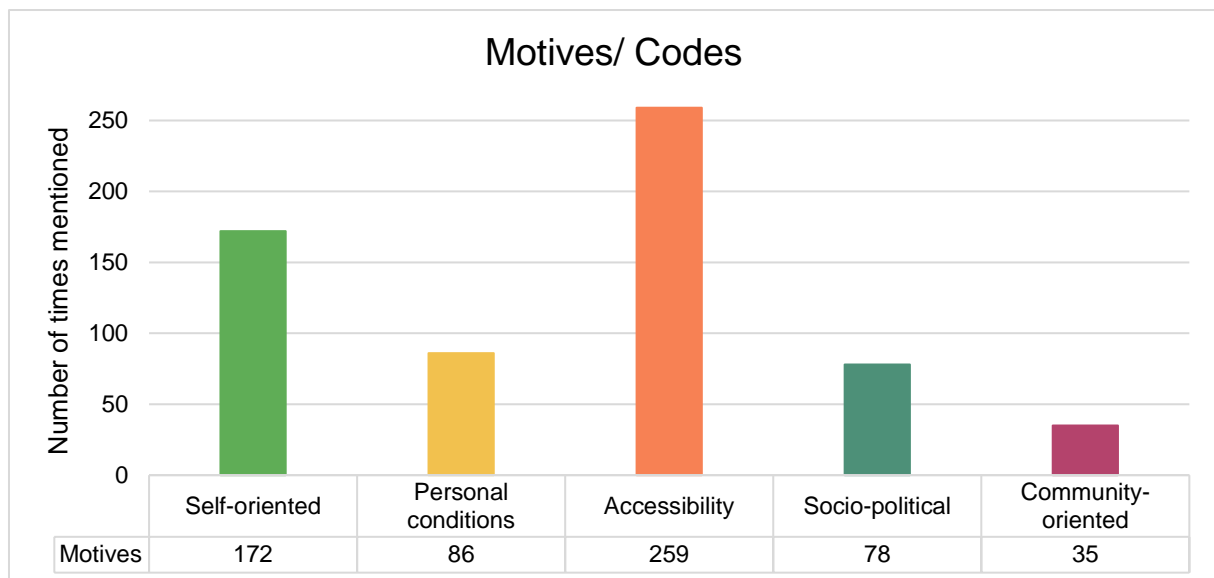


Figure 2: Frequency of motives (Source: own creation)

Different from other possible motives, accessibility was directly addressed in all interviews, for example, it was asked how people access the AFNs (i.e., car, bike, public transportation, etc.). This part of the interview had a more structured setting, and after the interviews it became apparent that people's answers to these questions needed to be separated from the part that was free from external influence (i.e., all other questions). However, coding initially proceeded in the same way as the rest of the interview, counting all accessibility statements into the respective categories, this was eventually adjusted, and the frequency of genuine accessibility factors changed.

Before further exploring the motives, the categorization of the motives/ codes is explained and then used for the remainder of this work.

After initial coding and therefore the first step in categorizing the motives, the list as shown in Table 12 was further adjusted in other categories and some codes/ motives changed from one category into another. The following Table 13 shows the new categorization and consequently is part of research question 2 and assort the motives into broader categories. To be able to better portray the categories, the table is split in two parts, displayed in Table 13. The split-up is purely for better readability.

Table 13: New categorization of practicability and morality motives

Practicability					
Self-oriented		Personal conditions		Accessibility	
Quality	Lifestyle	Household related	Resilience	Personal willingness	Outside factors
Organic	Healthiness	Family/ Household needs	Adaptability	Convenience	Space
Fertilization	Naturverbundenheit	Household size		Habit	Availability
Taste	Gefühl	Budget		Time	
Freshness	Lebensgefühl			Transportation	
Trust	Diet			Education	
Trusting the farmer	Role Model				
	Curiosity				
	Direct contact to farmer				
	Socializing				
Morality					
Sustainability			Altruistic		
Environmental reasons			Animal welfare		
Diet			Social aspects		
(Regional) origin			Supporting the farmer		
Waste/ Packaging			Supporting the local economy		

(Source: own creation)

Both overarching categories of practicability and morality remained the same, as did the sub-categories of the practicability motives; self-oriented, personal conditions, and accessibility. New is an even deeper categorization within those sub-categories, whereas the new divisions summarize the individual motives or factors. The self-oriented category now has two sub-divisions; quality- and lifestyle-oriented motives, the personal conditions category also has two sub-divisions; household-related and resilience-based motives, and the accessibility category is sectioned into personal willingness and outside factors.

The original morality sub-categories were replaced by two new ones, without further dividing as done in the practicability section. Similarly, to the practicability part, the new categories function as a summary for the assigned motives. The first new category summarizes sustainability-related motives, the second condenses altruistic motives.

This new categorization also brought changes in the frequency of appearance of motives, additionally, the questionnaire-type questions of accessibility were detached, so that the accessibility motives or factors can be viewed more unambiguous, the newly revised data can be seen in Figure 3 below and will be used for the remainder of this work.

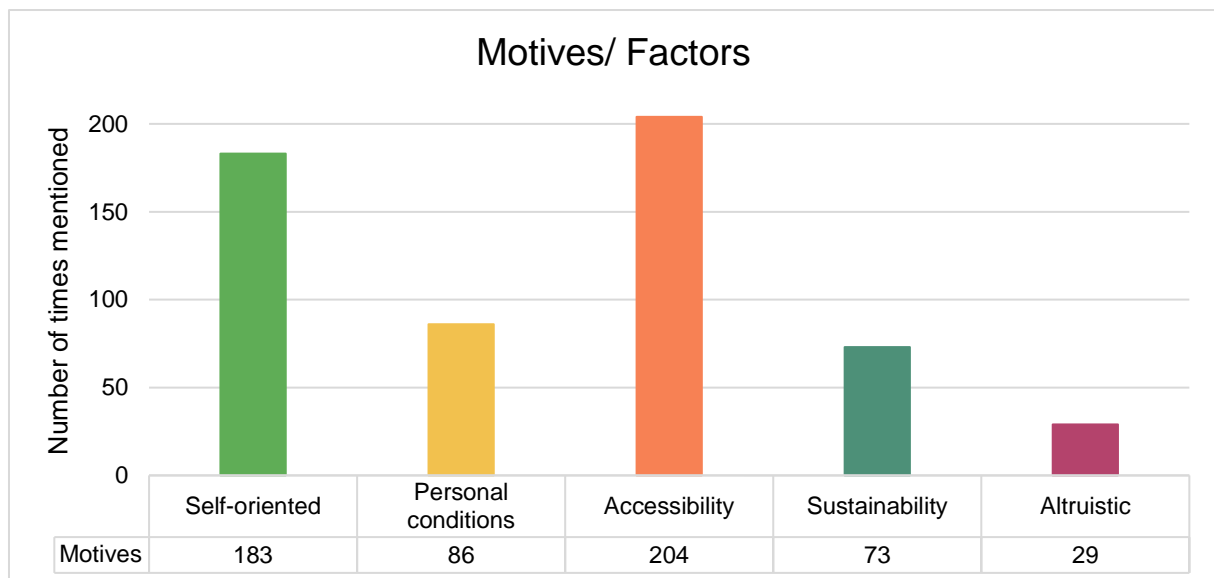


Figure 3: Frequency of motives after revising (Source: own creation)

In the following, the different categories, sub-categories, and sub-divisions are shortly explained with examples from the interviews as well as an explanation for their assignment. The quotations from the interviewees are displayed in their original German language and are translated by the author of this work into English, portrayed in the footnotes.

7.3.1 Practicability-related motives

The motives falling under the practicability category are self-oriented motives, motives originating from personal conditions, and those related to one's accessibility of AFNs.

Practicability was chosen twice without further classification because the interviewee talked about the general external conditions of participating in AFNs (ADK3, Pos. 42).

7.3.1.1 Self-oriented motives

Self-oriented motives for AFN participation summarize motives in which people chose AFNs for their own advantages.

The following Table 14 highlights these motives again and demonstrates the frequency with which they came up. Lifestyle was no original code, but only describes the motive category, hence no codes are assigned to this label.

Table 14: Self-oriented motives and their frequency

Self-oriented		6	
Quality	35	Lifestyle	
Organic	30	Healthiness	24
Fertilization	11	Naturverbundenheit	1
Taste	7	Gefühl	5
Freshness	14	Lebensgefühl	6
Trust	8	Diet	13
Trusting the farmer	5	Role Model	3
		Curiosity	9
		Direct contact to farmer	6
		Socializing	2

(Source: own creation)

Self-oriented as both motive and sub-category was assigned six times without further distinction into another group because it was too general to clearly assign a label.

Examples for this general category are from two interviewees in RV, RV5 about going to farmers' markets, and RV8 about subscribing to a vegetable box:

sich treiben lassen und entdecken. (RV5, Pos. 34)⁷

[...] einfach weil ichs echt eine gute Idee finde. (RV8, Pos. 16)⁸

The **quality** category as an otherwise unassigned group was counted 35 times on its own and sometimes was assigned when the interviewees talked about something out of the sub-categories as well. The quality category itself relates to several other categories described here, but in a more general way. It describes certain attributes of the food that are typically judged by the participants, this can be related to the appearance of the product, but also the way it was produced.

Mostly, **organic** or the **fertilization** label were assigned as well, both relate to the way a product was produced. Organic is described more precisely as choosing food because of its use of natural fertilizers (e.g., of plant or animal origin) and without the use of chemically formulated fertilizers, pesticides, hormones, etc. Often, organic products are labeled as such and this way easily noticeable to people. The fertilization category describes instances in which the participants specifically highlighted choosing food from AFNs because the fertilizers or pesticides were not chemically formulated. Often this was mentioned when organic was brought up, but not in all instances.

One participant from ADK answered when asked why they started going to farmers' markets in the first place:

⁷ to drift along and discover.

⁸ [...] simply because I think it's a really good idea.

Ja, damals gab es ja auch schon biologische oder eigentlich Demeterstände und biologisch-dynamischer Anbau und da haben wir immer ein bisschen Wert daraufgelegt. Wobei wir auch normale Sachen gekauft haben, aber wir bemühen uns da möglichst biologisch oder biologisch-dynamisch oder Demeter zu kaufen.⁹ (ADK 2, Pos. 16)

Very often, the categories are interconnected, and several codes had to be assigned to one sentence or paragraph, an example from one interviewee from BC on why initially starting to prefer organic:

Also im Grunde nur der Gesundheitswert, den ich als höher erachte, wenn ich Biolebensmittel kaufe, ja. [...] Also weil ich mich halt auf solche Marken verlasse wie Bioland oder Ökoland oder so, dass die halt keine Insektenvernichtungsmittel oder ähnliche Gifte aufbringen auf ihre Felder. ¹⁰(BC4, Pos. 10 – 12)

Motives found in this statement were also assigned to the **healthiness**, **organic**, **trust**, **trusting the farmer**, and **fertilization** categories.

Healthiness depicts statements in which the interviewees pay attention to nutritional or qualitative aspects of the food, and they hope to benefit from what they assume to be good for their own or their children's well-being. People expect the products to have certain nutrients or to be free from particular things (e.g., fertilizers, toxins).

Trust describes instances in which people are assured that a product has the valued characteristics and believe this to be accurate. Sometimes these characteristics are demonstrated by labelling the products, for example through certification marks (e.g., organic certification marks), other times people **trust farmers** (or a person commissioned by the farmer), by having confidence in their character to keep the promise given about the product.

The **taste** category relates to the sensual experience, often by perceiving flavor, through the act of eating or drinking a product obtained from an AFN. Statements related to taste were made seven times, in the following three examples are given:

⁹ Yes, back then there were already organic or actually Demeter and biodynamic vendors, and we always found that especially important. However, we also bought normal things, but we try to buy organic, biodynamic, or Demeter as much as possible.

¹⁰ So basically, just the health value that I consider higher when I buy organic food, yes. [...] Well, because I just rely on brand like Bioland or Ökoland or something like that, because they don't use insecticides or similar poisons on their fields.

[...] und ich finds tatsächlich geschmacklich sehr lecker, also vielleicht ist es auch Einbildung, ich weiß es nicht, ja. ¹¹(RV8, Pos. 22)

[...] der Geschmack ist besser. ¹²(BC3, Pos. 16)

[...] ja, ich finde es schmeckt besser. ¹³(BC 1, Pos. 18)

Freshness was not always just positive remarks, as the questions were asked in a way, that people could also state their dissatisfactions or disadvantages of participating in AFNs. Freshness describes the state of the obtained product, it is often judged through visible or smellable impressions by costumers. While freshness as a benefit (i.e., appearance and/ or odor were found to be in order) of food from AFNs was named several times, especially subscribers of vegetable boxes, who do not choose the produce on their own, but get it delivered, found the freshness factor to be lacking sometimes (i.e., appearance and/ or odor were found to be poor):

[...] also was mir jetzt gerade noch einfällt, ist einfach die Haltbarkeit von diesen Biosachen, weil die einfach manchmal nicht so lange haltbar sind, obwohl sie teurer sind, obwohl sie vielleicht schwerer zu erreichen sind, aber da haben wir ja vorher eigentlich auch schon darüber gesprochen. Das ist das was mir am Donnerstag, wenn die Biokiste dasteht und da schon eine bisschen vergammelte Karotte drin ist, das ärgert mich dann schon. Wo ich dann auch denke, ist es vielleicht doch die Lagerung oder keine Ahnung, ja. ¹⁴(RV 1, Pos. 53)

Lifestyle as its own code was not assigned, because this category was developed after initial coding. The lifestyle attributes are also self-oriented but refer to people's unique philosophies of living, or their personalities. All but one motive were originally in the self-oriented category, **direct contact to farmer** was initially in the morality section but after coding and revising the statements again, was found to fit better in the lifestyle section. Direct contact to farmer describes instances in which interviewees chose AFNs because they value the personal

¹¹ [...] and I actually find the taste very delicious, so maybe it's just my imagination, I don't know, yes.

¹² [...] the taste is better.

¹³ [...] yes, I find it tastes better.

¹⁴ [...] something that I just remembered is the shelf life of these organic things, because sometimes they just don't last that long, even though they're more expensive, even though they're maybe harder to get, but we actually already talked about that earlier. That's what, when on Thursday the vegetable box is there and there's already a bit of rotten carrot in it, that annoys me. And then I think, maybe it's the storage, or no idea, yes.

encounter with the farmer, a member of the farmer's family, or the manager of the farm. This was especially because they were interested in who produces their food, because they personally knew the farmer from other activities, they were both part of, or because they wanted to establish a relationship with the person behind their food.

An example for the just mentioned motive comes from a participant from RV:

[...] durch den Selbstanbau der Bauern fühlt sich das halt irgendwie besser an, wenn man die auch gesehen hat. Im Supermarkt hat man kein Gesicht zum Gemüse dazu.¹⁵
(RV 1, Pos. 16)

Another motive to be highlighted here, is **Lebensgefühl**, a German word, best described here as "awareness of life through experiencing a certain atmosphere", it became part of the category as an in-vivo code from an interviewee from BC, regularly going to the Saturday farmers' market in Laupheim. Other motives found in this quote are **quality**, **budget**, **habit**, and **family/ household** needs.

Für uns ist das ein gewisses Lebensgefühl am Samstag auf den Markt zu gehen, uns da gute Produkte zu holen, das leisten wir uns einfach, ich hol da meine Kartoffeln, Karotten, Zwiebeln [...]. Das ist ein Stück Gewohnheit vielleicht und auch ein Stück einfach Lebensqualität. Zwischenzeitlich ist es so, dass mein Mann schon böse ist mit mir, wenn ich samstags mal allein ganz früh geh und das mal schnell schnell erledige, das ist wirklich so ein Ritual geworden, das zusammen zu tun.¹⁶(BC5, Pos.18 & 24)

For this participant, going to the market is more than just a way to purchase groceries, the market is a place of encounter, a place to talk and engage in activities with friends and acquaintances, therefore it was assigned the **socializing** code:

das ist so ein Ort der Begegnung, also so ein sozialer Ort, wo man Bekannte trifft, wo man noch einen Kaffee dazu trinkt.¹⁷(BC5, Pos. 53)

¹⁵ [...] through the farmer's self-cultivation, it somehow feels better when you have seen them too. In the supermarket you don't have a face to the vegetables.

¹⁶ For us it's a certain awareness of life, to go to the market on Saturday, to get good products, we just allow ourselves this luxury, I get my potatoes, carrots, onions there [...]. It's a bit of a habit, maybe also a bit of quality of life. Meanwhile, my husband is already angry with me if I go alone very early on Saturday morning to do it quickly. It really has become a ritual to do it together.

¹⁷ [...] it's a place of encounters, a social place where you meet friends and have a cup of coffee along with it.

Lebensgefühl being a unique motive was found important enough to be its own category, similarly the German word **Gefühl**, best translated as “feeling”, which includes multiple meanings. The origin of why the participant experiences that feeling when being part of AFNs, is mostly not explainable by the interviewees themselves. One participant, currently not being part of any AFN, said:

[...] ich finde man fühlt sich besser, wenn man weiß man isst gute Sachen, da fühl ich mich danach besser, als wenn ich zum Beispiel billiges Fleisch von ich weiß nicht, irgendeinem Discounter [esse/ kaufe]. Da fühl ich mich nicht gut und ich weiß, dass wenn ich dann was Gutes gegessen habe, was wirklich Hochwertiges, fühl ich mich einfach besser und das ist der Grund.¹⁸ (RV3, Pos. 12)

It is almost as if when experiencing this “feeling”, every negative connotation the participant has or knows in relation to (in this case) “cheap meat” and “discounters” dominates the purchase decision, guiding them to choose the “good things”, the “really high quality [things]”. Lebensgefühl was not included in the multi-faceted Gefühl category, because the participants could further explain their “feeling”, or where the experienced emotion came from. The general Gefühl category is described by experiencing an emotion that is caused by something in the interviewees’ environment, in this case food or something that the particular product stands for (e.g., organic). In the case of Lebensgefühl, the participant experiences a certain atmosphere at the farmers’ market that evokes the sentiment of feeling aware of life, and this emotion is desired to be experienced repeatedly.

Another in-vivo code/ category was used for one participant’s statement on how being part of an AFN changed her lifestyle and why it continues to enrich her life:

Ja, also man hat andere Menschen ja dadurch auch kennengelernt und ja man ist der Natur mehr, also gerade mit Biogemüse und mit Kräuter, mit Garten bist du ja anders, ja stehst du der Natur jetzt gegenüber und man isst auch andere Sachen, also mir essen jetzt auch aus der Natur eben Kräuter, Blätter, ja man macht Löwenzahnhonig mal oder ja, man schätzt eigentlich auch mehr was ums Haus wächst, das hat sich

¹⁸ [...] I think you feel better when you know you’re eating good things, I feel better afterwards than when I [eat/buy] cheap meat from I don’t know, some discounter, for example. I doesn’t make me feel good and I know that when I’ve eaten something good, something that is really high quality, I just feel better and that’s the reason.

schon entwickelt, ja, dass man dann ja auch mal das wahrnimmt, was um uns herum eigentlich wächst, ja.¹⁹ (RV4, Pos. 20)

Naturverbundenheit, best translated as connectedness to nature, is also enabled through emotions, yet again the participant was able to describe the feeling more precisely. Naturverbundenheit describes the hunger to be close to nature and the appreciation received from engaging with it. Similar to the Lebensgefühl motive, this emotion is desired to be felt by the participant.

For several interviewees, starting to change their **diet** to vegetarian or vegan was motive for ANF participation, sometimes not they themselves, but members of their household changed their diet and new alternatives were more easily found in AFNs. The following example stems from a participant from ADK:

Mhm, also ich bin Vegetarierin und früher gab es noch nicht so gute Alternativen, da hat man halt im Biomarkt das alles gefunden, das gibt es jetzt auch in anderen Läden viel mehr, aber das hat so angefangen, damit eben, dass ich dann in Biomarkt gegangen bin und ich finde, da gibt es auch eine große Auswahl an solchen Sachen und mir ist es auch wichtig, dass sozusagen faire Bedingungen sind unter denen das hergestellt wird, also sowohl wenn ich jetzt mal vegetarische Produkte, die aber nicht vegan sind, kaufe, dass es halt für das Tierwohl gute Bedingungen sind, aber halt auch, dass die Lebensmittel nicht so belastet sind, also Bio quasi.²⁰ (ADK 3, Pos. 10)

Other motives assigned to this statement were **diet** (in the sustainability category), **availability**, **animal welfare**, and **organic**.

Curiosity was also often mentioned, especially in relation to new or different things only available in AFNs, or things people do not know and would normally not buy:

¹⁹ Yes, you got to know other people through it, and you are closer to nature, so especially with organic vegetables and herbs, with a garden, you are different, yes you face nature now and you also eat other things, we now eat also from nature, like herbs, leaves, you make honey with dandelion or yes, you appreciate more what grows around the house, yes, that changed and developed, that you perceive what actually grows around you, yes.

²⁰ Mhm, well I'm vegetarian and in the past there weren't many good alternatives, you could only find it in the organic market, now it is more common in other shops, and this is how I started going to the organic market, and I think there is a big selection of such things and also, it is important to me, that the conditions under which it is produced, so both, when I buy vegetarian products, that are not vegan, I buy them for good conditions in animal welfare, but also, that the food is not so contaminated, organic so to say.

[...] und das tolle ist ja, da sind immer wieder Sachen drin, die du beim Aldi zum Beispiel gar nicht kaufen würdest, das ist schon auch finde ich interessant.²¹ (RV 2, Pos. 30)

The **role model** category was assigned when people participated in AFNs to be a good example for someone else, mostly for their children who often imitate their parent's behavior:

Ich finde das ist auch so eine Erziehungssache, dass ich das den Kindern auch richtig vorleben möchte.²² (RV 1, Pos. 30)

7.3.1.2 Personal conditions motives

Personal conditions motives are motives related to a persons' prerequisites, referring to their state in life, often things that are not easily changeable, but influence decisions on a deeper level.

The following Table 15 represents the motives again, as well as the frequency with which they came up, the two sub-categories household related, and resilience developed after coding and therefore have no frequencies assigned.

Table 15: Personal conditions motives ad their frequency

Personal conditions		4
Household related	Resilience	
Family/ Household needs 17	Adaptability 32	
Household size 3		
Budget 30		

(Source: own creation)

As in the previous chapter, the motives are explained in the **personal conditions** category, which on its own serves as a general "filing point" for statements that fit that description, but without further distinction into the sub-categories. Some categories were already part of previous statements, and will be explained again, however not necessarily with examples.

Family/ Household needs are best explained by what other household members need or want, usually in reference to better or different quality food when compared to mainstream food outlets. Often a family member has an alternate diet that requires specialty foods, often just found in AFNs. As in the above-given statement family/ household needs can also refer to being included in the AFN as well, for example as seen in BC5, the interviewee's husband wants to accompany his wife to the farmers' market (see BC5, Pos.18 & 24, as stated under Lebensgefühl).

²¹ [...] and the great thing is, now and then there are things in there that you wouldn't buy from Aldi for example, I find that interesting too.

²² I think it's also a matter of parenting, that I want to set the right example for the children.

Household size was mentioned three times, for example suggesting that growing children are eating bigger portions and therefore require more food, thus leading to higher food costs (**budget** was also assigned). Another interviewee brought in the issue of living alone and the difficulty of finding smaller-sized portions in mainstream supermarkets:

[...] ansonsten im Laden, finde ich, ist die Auswahl nicht gut genug, also gerade, ich wohne alleine, für Alleinstehende ist es sehr schwierig finde ich, weil es immer nur so große Packungen gibt und ja, deswegen ist es auch so, dass ich immer schaue, ok, abwäge, Verpackung oder Bio, was es beim einen Produkt gibt, [dann ist] es halt das, beim anderen das, und dann muss ich eigentlich immer einen Kompromissweg gehen.²³ (RV7, Pos. 24)

Budget was mentioned frequently, mostly in relation to AFNs typically offering more expensive food compared to mainstream food outlets. Budget therefore rather is a motive against participating in AFNs. Here, gas prices were also referred to, especially in relation to a longer distance to AFNs in comparison to mainstream food outlets, which were often closer to the participants. Two examples, one relating to the gasoline prices, the other generally about her budget for food from AFNs:

[...] aber wenn ich halt dafür ewig weit fahren muss, dann verfahr ich viel zu viel Sprit, wie das was ich dann [an Lebensmittelausgaben] einspar'.²⁴ (ADK4, Pos. 35)

Also noch mehr wäre mir zu teuer, tatsächlich, also ich meine das sind jetzt auch zwischen 30 und 40€ in der Woche, und das finde ich schon relativ viel, klar, da ist dann immer noch was dabei außer Obst und Gemüse.²⁵ (BC 1, Pos. 42)

The **adaptability** category functions as a sub-category of personal condition and was used without further distinction into more sections. Adaptability refers to how a person compensates changing situations and develops new ways to enable desirable things. It relates to being able to build up resilience and cope with the given situation, for example, one participant was used

²³ [...] otherwise in the store, I don't think the selection is good enough, because I live alone, and I find it very difficult for single people, because the packages are always so large and yes, that's why I always look, ok, I weigh up, packaging or organic, when they have the one product [in a smaller size] I'll take that, if the other, I'll take that, and then I actually always have to find a compromise.

²⁴ [...] but if I have to drive a long way for it, I need far too much gas than what I save [in food costs].

²⁵ Well, even more would be too expensive for my taste, actually, I mean now it's between 30 and 40 € a week, and I think that's quite a lot, of course, there's always something else besides fruit and vegetables.

to city life and having all options available, when she moved to a rural community. She continued to work in the city and went to the AFN on her drive home from work instead of going there from home (RV5, Pos. 25).

7.3.1.3 Accessibility-led motives and factors

This category could also partly be under personal conditions but, due to **accessibility** being a major theme in this thesis, was developed into its own category. Again, the category was split in two, personal willingness and **outside factors**, the latter not being motives in the prevailing sense of this thesis, hence it is called factors, not motives. **Personal willingness** statements are also not motives in the traditional sense, but rather describe actions inspired by motives.

Table 16: Accessibility-led motives and their frequency

Accessibility		19
Personal willingness	Outside factors	
Convenience 28	Space 10	
Habit 25	Availability 61	
Time 30		
Transportation		25
Education		6

(Source: own creation)

Accessibility as its own category was used as a code 19 times, again more generally when no clear category was distinguishable, the frequency of all accessibility motives can be seen above in Table 16.

Out of the personal willingness sub-category, **convenience** describes circumstances in which the AFN is coincidentally in someone's path, for example if the workplace is close, an activity is nearby, but also if the food is delivered. It can also mean that typical products such as fruit and vegetables are expanded with other things like cheese or drinks, and it makes the AFN more of a one-stop place for food supply. In contrast it can also hinder someone to participate if AFNs are not nearby, one example comes from a participant who recently stopped participating in AFNs (this statement was also assigned the **availability** and **space** code):

[...] aber es dauert länger und deswegen mach ichs nicht mehr so, wenn das jetzt alles ums Eck ist, ist es für mich leichter, ja und dann kann ich das auch besser umsetzen, dann kauf ich auch mehr Bio ein, wenn das in der Nähe ist.²⁶ (RV3, Pos. 42)

²⁶ [...] but it takes longer and that's why I don't do it anymore, if it's all around the corner, it's easier for me, yes, then I can do it better, then I buy more organic if it's nearby.

Habit was assigned when AFNs were frequented over a longer period of time and eventually choosing the AFN as a food outlet developed into a settled tendency, alternatively the participants acquired this mode of behavior from growing up with people who themselves participated in AFNs:

Dadurch, dass es meine Mama auch schon immer gemacht hat, war das irgendwie bei uns daheim irgendwann schon Routine und Standard und das hab ich dann einfach so übernommen, weil ichs schön fand.²⁷ (ADK4, Pos. 10)

Time is viewed here as the duration it takes to reach the AFN, and therefore is more of a factor for or against AFN participation. Additionally, the time attribute was assigned when people stated how long they participated in the AFN, both has already been summed up in chapter 7.2. Asking about travel time allowed for the participants to judge the expenditure of time to participate in AFNs, BC1 is vegetable box subscriber, RV8 also frequents farmers' markets:

[...] dass ich halt mir die Zeit auch spare, also dass ich selber irgendwohin muss.²⁸ (BC 1, Pos. 48)

Der entscheidende Faktor ist, dass es für mich noch im zeitlichen Rahmen sein muss es zu erreichen, also ich würde jetzt nicht ewige Strecken mit dem Auto fahren.²⁹ (RV8, Pos. 49)

Time was assigned into the personal willingness category because it depends on how much time someone is willing to "sacrifice" for AFN participation.

Outside factors are again more factors than motives, that can either encourage people to participate in AFNs or hinder them.

Similarly to the time factor, **space** was used to inquire about the distance to the AFN, and results can be found in chapter 7.2 as well. Often time and space were assigned simultaneously because they both refer to distance. Again, it gave participants the opportunity to evaluate their statements:

²⁷ Because my mom has always done it, it was always a routine and standard, and at some point I just took it on as well, because I thought it was nice.

²⁸ [...] that I just save myself the time, I mean [the time] I have to go somewhere myself.

²⁹ The decisive factor is that it still has to be within the time frame for me to reach it, I wouldn't drive endless routes by car.

[...] wobei ich zum Beispiel sagen müsste, ich wohn ja auf dem Land, da gibt es schon so einzelne Möglichkeiten, aber ich hab es halt gerne beieinander, also ich will nicht auf den einen Hof laufen und Eier kaufen und dann hol ich auf dem nächsten- so, wenn das so zentriert wäre, dann wäre das auch eine Alternative auf dem Hofladen einzukaufen, aber das gibt es halt in der Form nicht bei uns und deswegen fahre ich halt lieber da hin, wo ich alles haben kann.³⁰ (ADK 3, Pos. 34)

This statement was also assigned the **habit** and **availability** codes.

Space belongs to the outside factors, because the position of an AFN is not in the participants' power.

Availability is similar to the convenience factor, but the variety of products is in the foreground, sometimes they are not clearly distinguishable. Availability could also describe peculiarities around the AFN participation, such as opening times, but also if it required a certain routine to be able to partake, this was especially the case with vegetable box subscribers:

Hmm. gut, Biokiste muss ich halt dran denken, dass ich jeden Montagabend spätestens die Bestellung rausgebe, sonst gibt es halt nichts, dann ist es auch zu spät, dann erreich ich die nicht mehr, also muss ich schon dran denken.³¹ (BC 1, Pos. 40)

Another example for availability and its overlapping with **adaptability** comes from an interviewee from ADK:

Das Angebot ist da eigentlich gut, mittlerweile bekommt man ja auch wirklich viel, es ist nicht mehr so, dass man ein eingeschränktes Angebot hat, notfalls beim Erdapfel bekommt man immer alles.³² (ADK 1, Pos. 48)

The last two categories in this section are **transportation** and **education**, both are assigned to personal willingness and outside factors. They are assigned into both categories, because for example, the access to public transportation is an outside factor, but also depends on

³⁰ [...] but I'd have to say, for example I live in the country, so there are a few options there, but I just like having it together, because I don't want run to one farm and buy eggs and then I'll go to the next- well, if it were centred, then it would be an alternative to purchase from the farm shop, but we don't have it in this form and that's why I prefer to go where I can have everything.

³¹ Hmm well, vegetable box I have to remember to give out the order at the latest on Monday evening, otherwise I don't get anything, then it's too late, then I can't reach them anymore, so I have to remember that.

³² The offer there is actually good, meanwhile you really get a lot, it's no longer the case that you have a limited offer, if needs be, at Erdapfel you can always get everything.

personal willingness to rely upon. Education about AFNs can be something someone chose to partake in (personal willingness), but it can also stem from their upbringing (outside factor). Several interviewees named their studies of ecotrophology as one of the initial causes for aspiring to sustain and maintain a healthy diet, but also reading books changed people's mindsets (both would be personal willingness).

[...] ich denke dadurch, dass ich meine Ausbildung als Hauswirtschaftslehrerin gemacht habe, bin ich eigentlich während meiner Berufsausbildung darauf aufmerksam geworden, was eigentlich gesund ist und [habe] eben da von meiner Ausbildung her schon einen Fokus auf diese Sachen gerichtet. ³³(ADK 1, Pos. 14)

An example where education would be an outside factor comes from a participant from RV, also assigned to this statement was the **role model** motive (also **habit**):

Ich glaube das war meine Mutter, die hat das auch schon immer gemacht, die geht immer in Naturkostladen, oder kauft auf dem Markt frische Sachen und ich glaub das hab ich da übernommen, ja. ³⁴(RV3, Pos. 10)

As already mentioned, **transportation** fits both categories, and depends on how well the public transportation is established (outside factor), and if a person is willing to use public transportation to reach AFNs and then carry the goods, or if private transportation methods, such as cars, or bikes are preferred:

[...] dann fährt hier am Wochenende eigentlich so unregelmäßig ein Bus, dass man das was man eigentlich möchte, nämlich öffentlichen Nahverkehr auch nutzen, also ich könnte das gar nicht so mit dem Einkauf, von Laupheim nach Hause, da bin ich zu bequem, das würde ich sehr gerne tun. ³⁵(BC2, Pos. 22)

³³ I think that because I did my studies to become a home economics teacher, I actually became aware during my studies of what is actually healthy and have already focused on that, then.

³⁴ I think it was my mother, she has always done it, she always goes to health food stores or buys fresh things at the market and I think I took that over, yes.

³⁵ [...] then, the busses run so irregularly here at the weekend, that you can't do what you actually want, namely actually using public transportation, so I couldn't do that with the shopping from Laupheim back home, I'm too comfort-loving, though I would really like to do it.

7.3.2 Morality-related motives

Morality-related motives were newly sorted after having been coded into two categories; **sustainability-inspired** and **altruistic**. The former is also related to current trends and themes which have been partly brought into people's consciousness via media channels. Altruistic motives describe actions that are not for the participants' own benefit but purely to do good for others.

Due to the appearance of both categories only after coding, no statements with these codes have been directly assigned. The original categories have simply been renamed and therefore the original codes have been taken over into the new ones. This was possible because the initial division was similar and new names could be assigned without changing the trajectory of the sub-codes. Additionally, the main categories were only used for general statements parallel to the previous categories. Explanations will be given in the customary manner, with Table 17 giving an overview of the categories and sub-categories as well as the frequencies with which they were coded.

Table 17: Morality-related motives and their frequency

Morality			2
Sustainability-inspired	10	Altruistic	1
Environmental reasons	18	Animal welfare	5
Diet	8	Social aspects	3
(Regional) origin	17	Supporting the farmer	9
Waste/ Packaging	20	Supporting the local economy	9

(Source: own creation)

Environmental reasons are motives inspired by circumstances or conditions which the participants are surrounded with, the environment here meant to be the ecological unity whose form and survival are determined by the interaction between physical, chemical, and biotic aspects (Merriam-Webster, 2022). In this work, environmental reasons describe the explicit choice of food options (including modes of farming, production, and transportation) because they are beneficial for the survival of the ecological unity. Again, this can be connected to categories such as organic, or fertilization. Below are two examples from interviewees, BC1 in particular is a vegetable box subscriber:

[...] dass es einfach für die ganze Natur gesünder ist, nicht nur für mich als Mensch, sondern auch für die ganze Umwelt, und einfach besser ist, wenn man ohne viel Spritzmittel, ohne Chemie und so die Landwirtschaft betreibt.³⁶ (ADK 1, Pos. 18)

³⁶ [...] that is simply healthier for nature as a whole, not just for me as a human being, but for the entire environment as well, and it is simply better if you farm without a lot of chemical pesticides and the like.

[...] und dann auch vom ökologischen her, dass halt nicht jeder selber fährt, sondern, dass der halt eine Tour fährt und dann mit einem Auto alle beliefert und nicht jeder sein eigenes braucht, und es ist unverpackt, das kommt auch noch dazu, weil mich die Verpackung im Supermarkt echt auch stört, gerade bei Obst und Gemüse.³⁷ (BC 1, Pos. 12)

The last statement was also assigned the **waste/ packaging** code, which was typically found to be less with products from AFNs and usually positively remarked by the participants. Waste refers to too much food for a person or household to eat before turning bad and therefore must be thrown away or be composted. Packaging refers to something enclosing a product, for example, covers, containers, or bags, often made of plastic or paper, that after removing have little to no use and must be thrown away or when possible can be recycled.

Diet was assigned in two categories, here it refers to diet changes (e.g., vegan, vegetarian, gluten free, etc.) that are not purely inspired by personal lifestyle-oriented reasons but rather specifically environmental reasons, for example:

[...] aber um das Fleisch zu ersetzen, finde ich zum Beispiel ganz wichtig, weil ja, ich glaub da kann man viel Gutes tun, denke ich, hoffe ich. Wasserersparnis während der Fleischherstellung und so, da versuch ich jetzt auch bisschen zu achten, also auch dieser Umweltaspekt finde ich schon auch wichtiger oder wichtig, ja.³⁸ (RV3, Pos. 59)

Regional origin used as a motivation to participate in AFNs came up frequently and was commonly preferred over products from far away, although how far the region goes in the interviewee's opinions was not explored. Regional origin refers to the AFN being from the participants origin (e.g., place of living, administrative district, federal state, country, etc.), as perceived from the interviews, this refers most likely to one's place of living or administrative district. The following statement also shows how themes like that are manifested into people's mind through media:

³⁷ [...] and then also from an ecological point of view, that not everyone drives themselves, but that they drive a tour and then deliver to everyone without everyone having to use their own cars, and additionally it is without packaging, because packaging in the supermarket is really annoying, especially with fruit and vegetables.

³⁸ [...] but to replace the meat, I for example find it important, because I think you can do a lot of good things there, I think, I hope. Saving water during meat production and so on, I'm trying to be a bit aware now, I also think this environmental aspect is more important or important, yes.

Also auch weil das regional, jetzt einfach finde ich eine größere Rolle spielt, man hat das noch mehr im Kopf, weil es in den Medien viel öfters kommt, dass diese regionalen Produkte, dass es einfach für alle Bereiche vom Klimaschutz bis sonst wo hin, eigentlich immer wichtig ist, regionale Dinge zu kaufen.³⁹ (RV 1, Pos. 26)

Continuing to the altruistic motives, **animal welfare** was mentioned often in connection to people's diet, especially for vegetarian and vegan participants. Here, animal welfare describes the treatment and living conditions of all livestock, for example, cows, pigs, or chicken, but also aquatic beings such as fish or crustaceans. In particular, interviewees desire for these animals to be raised in agreement with the Prevention of Cruelty to Animals Act and in increased living conditions when compared to the minimal requirements. The example below stems from a vegetarian participant from ADK, about buying organic products:

[...] dass die Sachen was Tierwohl angeht, also wenn ich da jetzt eine Milch mit Biosiegel kaufe, [erwarte ich] dass die Kühe mehr Platz haben oder irgendwie so auf der Weide grasen können, anstatt irgendwo eingepfercht zu sein.⁴⁰ (ADK 3, Pos. 16)

Social aspects were newly added when an interviewee used the working conditions of people in AFNs as a reason to participate in them. In an extended manner, fair trade regulations that go beyond the AFN are also included here, but due to the lack of more such comments were not given their own category. In the example below, the motive is also related to an emotion that is desired to be satisfied when purchasing food:

Dass ich zumindest ein gutes Gefühl habe, zum einen halbwegs gesunde Lebensmittel zu kaufen, so ganz platt gesagt, und dass, hoffentlich auch die Arbeitsbedingungen der Menschen gut sind, das weiß man ja aber auch nicht immer, aber es ist glaube ich weniger eine Mogelpackung, als wenn ich beim Discounter kaufe.⁴¹ (BC2, Pos. 45)

³⁹ So, because regional now also plays a bigger role, you have that in your mind even more, because it comes up so often in the media, that these regional products are just more important for all areas, from climate protection to anywhere else, it is always important to buy regional things.

⁴⁰ [...] that the things in terms of animal welfare, as in, if I buy organic milk, [I expect] that the cows to have more space or that they can somehow graze on the pasture instead of being penned up somewhere.

⁴¹ That I have at least a good feeling about buying reasonably healthy food, to put it bluntly, and that hopefully the working conditions of the people are good, you don't always know that, but I think it's less of a scam than when I buy from a discounter.

Supporting the farmer as a motive was frequently mentioned to inspire people to participate in AFNs. Supporting the farmer describes instances in which the participant chooses the AFN to help to ensure the farmers' (including their families and employees) livelihood by purchasing products directly from them, instead of bigger enterprises where they are unable to track whether their money actually reaches the farmer, for example:

[...] und dass man eben vor allem auch diese Bauern unterstützt, die das machen, damit sie nicht ihren Hof aufgeben müssen, weil sie zu wenig Absatz haben.⁴² (ADK 2, Pos. 26)

Supporting the local economy was mentioned as a motive to continue to participate in AFN because:

Ja, man hört ja viele, dass viele schließen müssen und zumachen müssen, und dass man die einfach unterstützt.⁴³ (BC3, Pos. 20)

Supporting the local economy refers to instances in which the participant desires to sustain local enterprises, for example small corner shops. This can have several reasons, in the above example the interviewee wants to prevent the owners from having to close their stores, but it can also refer to cases in which the participant is aware of the local short supply chains that are necessary to ensure a stable food supply also for the less mobile community:

[dass man] an die ältere Gesellschaft denkt, die jetzt nicht mobil sind, gerade meine Oma hat jetzt keinen Führerschein oder so, die ist auf die kleinen Läden, die es hier so gibt, die Tante Emma Läden auf dem Dorf angewiesen, dass man da auch an die Personen denkt.⁴⁴ (ADK4, Pos. 37)

Clearly the last two categories are very intertwined and sometimes were difficult to distinguish, but generally supporting the farmer was applied if it was directly about the farmers and supporting the local economy when the participant frequented several regional food outlets, and for the purpose of maintaining these local, often small-scale enterprises for securing local services.

⁴² [...] and that above all you also support those farmers, so that they don't have to give up their farm because they don't have enough sales.

⁴³ Yes, you hear a lot, that many have to close and that you simply support them.

⁴⁴ [that one] thinks of the older society, who are not mobile, my grandma doesn't have a driver's license or something, she is dependent on the small shops that are here, the corner shops in the village, that one also thinks about those people.

7.4 Decisive motives and factors

After the modified choice experiment and the main interview, interviewees were asked to state their most important factors for AFN participation. Typically, people were encouraged to only name one factor, but if necessary two or more motives or factors could be chosen. In the end, people chose on average 3.2 factors or motives for AFN participation. The categorical results and their frequency are portrayed in Figure 4.

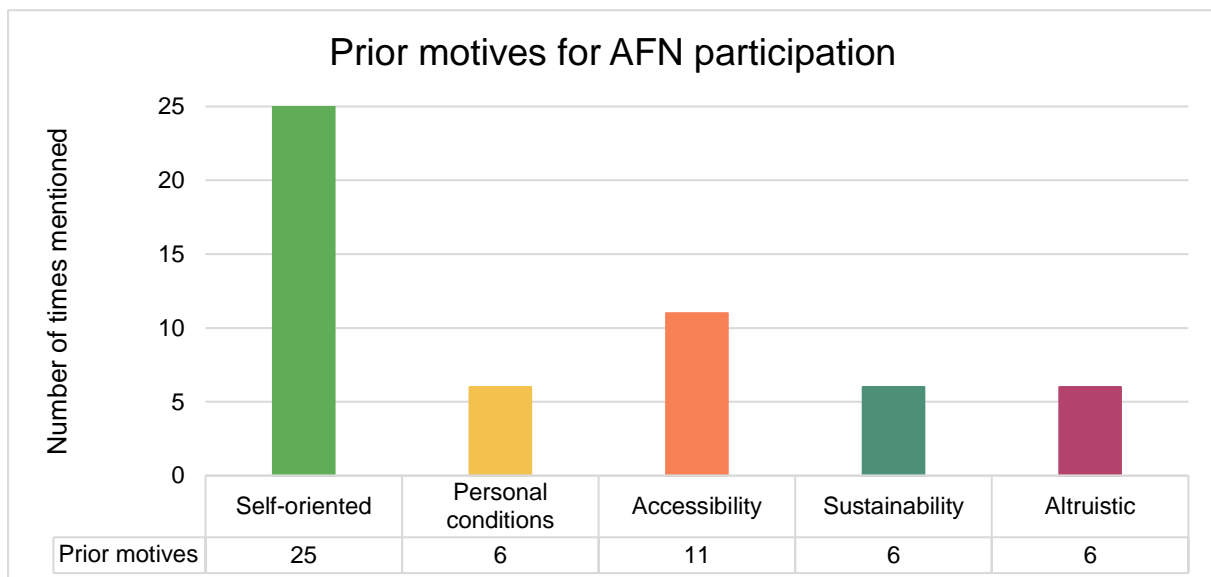


Figure 4: Prior motives for AFN participation and their frequency (Source: own creation)

The results broken down into their categories can be seen in Table 18. Sometimes conditions were set on certain motives, for example:

Das wichtigste Kriterium ist schon immer, dass ich einwandfreie Ware bekomme. [...] Also biologisch erzeugt, aber im Verhältnis zum Preis und zum Weg.⁴⁵ (ADK 1, Pos. 54 & 56)

⁴⁵ The most important criterion has always been, that I receive flawless goods. [...] I mean organically produced, but in relation to price and distance.

Table 18: Prior motives and their frequency

Practicability			
Self-oriented			2
Quality	5	Lifestyle	0
Organic	4	Healthiness	5
Fertilization	1	Lebensgefühl	2
Freshness	2	Curiosity	1
Trust	1	Direct contact to farmer	1
Trusting the farmer	1		
			Σ 25
Personal conditions			1
Household related	0	Adaptability	0
Budget	5		
			Σ 6
Accessibility			1
Personal willingness	0	Outside factors	0
Convenience	1	Space	2
Time	3	Availability	3
		Transportation	1
			Σ 11
Morality			
Sustainability	0	Altruistic	1
Environmental reasons	3	Animal welfare	2
Diet	1	Social aspects	2
(Regional) origin	2	Supporting the farmer	1
Σ 6			Σ 6
All prior motives			Σ 54

(Source: own creation)

Self-oriented motives, and especially those belonging to the quality category were named most often as the prior themes for AFN participation, followed by accessibility factors, and the other three categories, personal conditions, sustainability, and altruistic were equally often mentioned. Statements from participants have already been given in the previous chapters and will therefore not be revised again, as their meanings have not changed.

7.5 Modified choice experiments

In addition to the prioritization of motives this chapter frames the results of the modified choice experiments completed just before the question about the most important factor for AFN participation.

Results show how the different pricing and distance scenarios influenced people on their decision to choose the AFN over the supermarket. Additionally, the results give information about the number of times people were willing to purchase from AFNs in both the AFN markup and AFN discount scenarios. Therefore, they help to understand the relevance of the accessibility and budget factors.

Due to the 40 different scenarios, people also had the possibility to choose to go to an AFN 40 times. On average, people chose the AFN over the supermarket in 27.9 cases, or 69.9%. This was very different from participant to participant; therefore, these results are broken down on the participant level, below in Table 19:

Table 19: Participants and their choosing of AFNs

Participant	No. of times AFN was chosen	AFN was chosen (%)
ADK1	23	57.5
ADK2	29	72.5
ADK3	23	57.5
ADK4	24	60.0
BC1	29	72.5
BC2	31	77.5
BC3	32	80.0
BC4	32	80.0
BC5	30	75.0
RV1	24	60.0
RV2	20	50.0
RV3	30	75.0
RV4	40	100.0
RV5	33	82.5
RV6	12	30.0
RV7	33	82.5
RV8	30	75.0
Ø	27.9	69.9

(Source: own creation)

For the first set of scenarios the results are portrayed in Figure 5 below, here people received a discount at the AFN, but the supermarket was closer. There were nine scenarios in which all participants chose the AFN, all of them were when the distance to the AFN was either the same or 5 minutes further. Participants were increasingly willing to choose the AFNs when the discount was higher, but were decreasingly willing to do so, the closer the supermarket was.

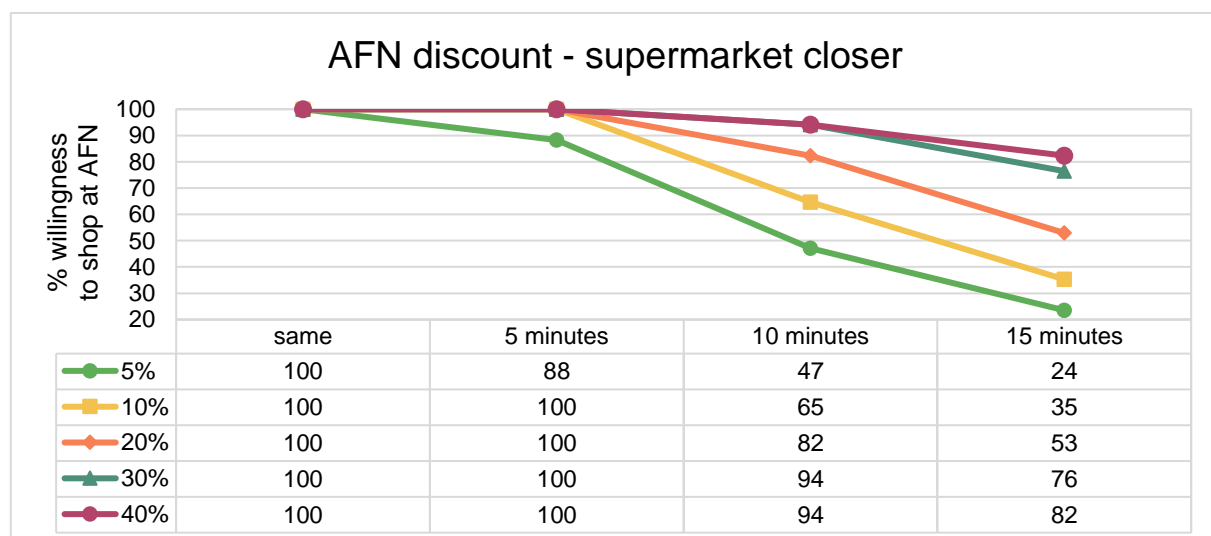


Figure 5: Percentage of consumers willing to shop at AFNs with discount (Source: own creation)

The results of the second set of scenarios are depicted in Figure 6 below. For these scenarios, the AFN had a markup compared to the supermarket, but was closer to reach. In no scenario, did all participants choose the AFN. People were decreasingly willing to choose the AFN the higher the markup, and the higher the markup but the closer the AFN, people were decreasingly willing to choose the AFN.

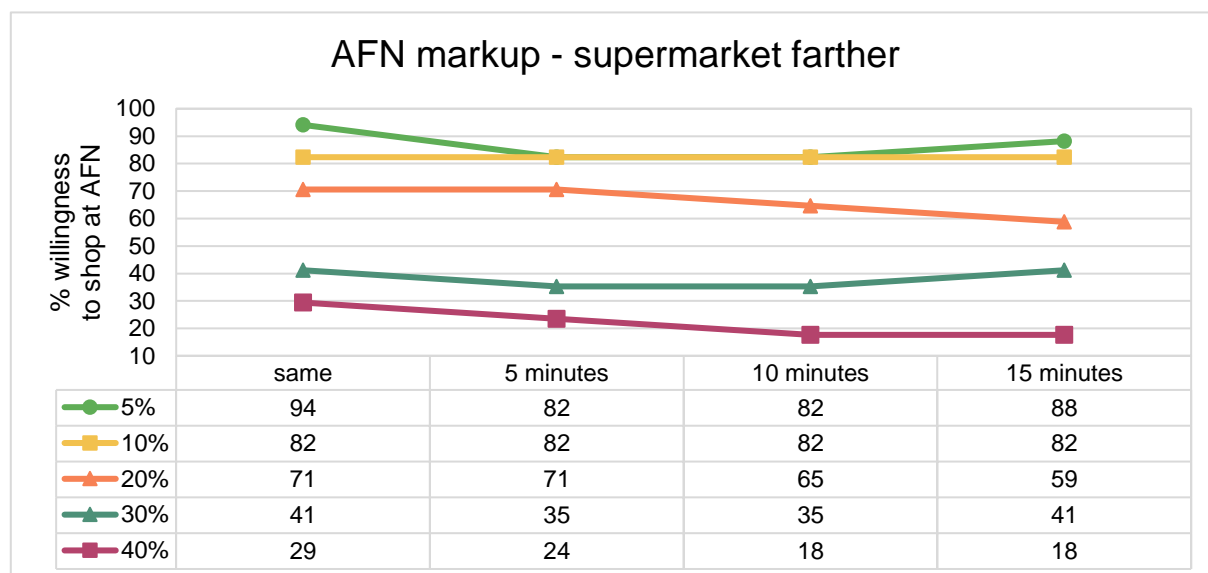


Figure 6: Percentage of consumers willing to shop at AFNs with markup (Source: own creation)

8 Discussion

In the following chapters the results are discussed, always with the research questions in mind and in combination with the theoretical framework given in chapter 4. The relevant results will be itemized and discussed focusing on the literature introduced in chapter 3, included as well are the working hypotheses again.

8.1 Research question 1

What opportunities arise for consumers to participate in AFN structures in the study region and what are the prevalent accessibility structures?

Working hypotheses:

1. There are differences between urban and rural areas of the region, which is reflected in the distribution of AFNs.
2. There is a wide variety of AFNs in the study region, but with local differences.

All three administrative districts of the study region are classified as rural areas in the narrower sense with small exceptions for some towns and communities. The results as presented in chapter 6 show that even in a region officially considered as rural by the LEL Schwäbisch Gmünd, Abteilung 3 (2018), Mittel- and Oberzentren exist and show signs of urban characteristic to allow for an all-encompassing provision with food, education, health services, and more. It should be noted that these structural conditions are not the same for all of Germany, however the central place theory is an essential part of German spatial planning and is established in German federal law. Therefore, local differences are predetermined, especially when the east-west disparities, as explained in chapter 3.2.2, are taken into consideration. Population density might be a particularly important factor also for retail companies to consider in terms of local purchasing power.

Mainstream food retailing was not the scope of this thesis and therefore is only a minor point to consider, but it is true that AFNs must also account for some of the economic effects originating from theories such as the central place theory. This can be seen particularly in the organic supermarkets of the study region because they are especially established in Mittel- and Oberzentren, places that are historically embedded as trading centers. Farmers' and weekly markets are equally often found in these central places and even more historically are still set up in the market squares of these small and medium-sized towns. It is reasonable to have places of food provision connected to places of other activities that naturally draw people to these towns, so that errands and duties can be combined.

AFNs that are more rooted on the farms such as farm shops and CSAs are typically located in the small communities of the study region and therefore are more scattered across the

administrative districts. Again, this is a historical relic and today farms are pushed back even further, which can be seen in the progressive development of so-called Aussiedlerhöfe (German for farms outside of villages), often due to the lack of space and a reduction of emissions in the villages, but also to avoid conflict between farmers and residents.

The results indicate that AFNs are not equally present in all three administrative districts due to their geographical and historical conditions. The ADK and RV offer a wider variety of different opportunities, especially because of the Oberzentren Ulm (ADK, although technically not part of the ADK), and Ravensburg/ Weingarten (RV) bringing in additional opportunities with organic supermarkets. Residents in BC must rely either on the smaller organic stores or travel farther to reach organic supermarkets. BC being part of the Region Donau-Iller also have Oberzentren assigned, however not in BC itself. This can also be observed in the interviews, with people from BC travelling to the Oberzentren Ulm or Memmingen (Bavaria) for organic supermarkets.

The results suggest that RV has the biggest share of organic farms when compared to ADK and BC, this is also noticeable in a broader AFN offering. Standing out is the number of CSAs but also the number of organic supermarkets in this rather rural district, with many little shops in smaller communities. The geographical conditions and the scenery of RV, being part of the Allgäu and being close to Lake Constance can be viewed as an interpretation for this development. Additionally, the Bio-Musterregion campaign seems to be much more advanced in RV compared to BC or even the communities of ADK that are part of the biosphere reserve of the Swabian Jura.

The subscription-based vegetable boxes offer an opportunity for the rural population to have easy access to AFNs as well, without having to rely on public transportation or traffic conditions. Subscription-based vegetable boxes are available in all administrative districts, however farms from bordering districts are necessary to reach all towns and communities, this is especially the case in ADK, with only one farm from ADK offering their services.

The findings on CSAs in the study region are rather scarce, especially in the ADK and BC where CSAs are either only in development or people must rely on neighboring districts when participation is desired. Compared to the other AFNs introduced, CSAs require more initiative and contribution on the consumers' side, additionally they are not as accessible in terms of admission and availability. Many people are also not aware of the concept of CSAs, and therefore have no knowledge of their existence. It should be acknowledged though, that because of the lack of CSAs in most parts of the study region, this thesis did not particularly take CSAs into consideration. This can also be observed in the fact that no participants of CSAs have been included, however the latter is also due to the convenient sampling method. As introduced in chapter 3.2.2, Jarosz (2008) attaches the emergence of AFNs to urbanization and rural restructuring. Especially the former can be confirmed when interpreting the results of

the areas close to an Oberzentrum, as they tend to be more densely populated spaces. In contrast, the latter shows the studies' limitations, as the accumulation of AFNs has not been completely observed on a communal level, but rather on a district-wide investigation.

As suggested by Küpper and Milbert (2020), the rural population is more willing to cover greater distances, something that could not be compared within the study, because it only targeted the rural population, but the results suggest, that all participants rely on their cars to participate in AFNs. In the cases that acknowledge public transportation, it is devalued and unpractical to use because of its unreliability and the lack of running regularly, however the desire to use public transportation is detected.

8.2 Research question 2

What are the different motives behind people's food sourcing choices?

Working hypotheses:

3. Accessibility is a major influence for people when sourcing food.
4. For others, accessibility is only a minor argument when sourcing food.
5. There are two broad categories of motives people have: practicability and morality.

Before discussing the contents of the interviews, a short discussion about the empirical basis is given.

This research sampled the person in the household having the main food shopping responsibilities and eventually this resulted in an unequal gender distribution. Similar results can be found in Zoll et al. (2018), however no explanation thereof is given, other studies more generally focusing on gender distribution in food shopping behavior resulted in a more equal distribution, with women slightly ahead in terms of food acquisition services (European Institute for Gender Equality, 2019; Flagg et al., 2013; Storz et al., 2022).

During the entire process of this thesis the study region (i.e., ADK, BC, and RV) has been considered as a whole, however, to justify the unequal distribution of the participants in the study region, with more people from RV than from the other two districts, the belonging of ADK and BC to the Donau-Iller-Region and RV belonging to the Oberschwaben region. The former two share accessibility similarities and are viewed more as a whole compared to RV. This could also be considered to be one of the limitations of this study, as results were not compared between the three districts and therefore possible disparities would not have been detected.

Often studies like this one only probe in one type of AFN (Brown et al., 2009; Hu et al., 2021) or compare different motivations for different AFNs (Carolan, 2017; Zoll et al., 2018), however here, most participants mentioned being part of more than one AFN, therefore assigning

motives with a particular AFN would have required a different approach and was also not the aim of this thesis.

Having had the division of practicability and morality before starting the interviews helped with assigning the categories and codes, but it also showed the limitations of the initial construction set in the theoretical framework. The newly gained categorization, again below in Table 20 but without the sub-categories, helps to broaden the understanding of why people participate in AFNs and what motives and factors are of influence.

Table 20: Motive categorizations without sub-categories

Practicability					
Self-oriented		Personal conditions		Accessibility	
Quality	Lifestyle	Household related	Resilience	Personal willingness	Outside factors
Morality					
Sustainability-related			Altruistic		

(Source: own creation)

The results of the motive analysis indicate that not all reasons for people for or against AFN participation are motivations or hindrances, but certain items are better constructed as factors that influence AFN participation. Especially the ones out of the personal conditions and accessibility sub-categories are best described as factors rather than motives (or hindrances). Coding helped with establishing the new categorization, however needed to be revised, and recoded after the first cycle. Especially the questionnaire-type questions during the interviews distorted the first results and made recoding and revising of the results necessary. This could have been avoided by including these questions into the questionnaire, at the same time it proved to be important to direct the conversation to accessibility-related motives and factors. Whereas past researchers targeted their interviewees directly at the AFNs (Carolan, 2017; Zoll et al., 2018), the participants in the present study were targeted more broadly, disregarding the type of AFN. This limited the results in view of specific motivations for single AFNs, but as interviewees were often spreading their food purchases, it made them experts for several food procuring methods, both alternative and mainstream.

The results of the frequency and then aligning them to be more important when they appeared more often, can be misleading, as the codes were not weighted.

The four key findings of the present research in terms of motivators, hindrances, and factors to participate in AFNs are that in order for people to take part in an AFN, it must exist in their sphere of life (1), they must know how to participate (2), they must be able to participate (3), and it must procure them with something that they otherwise cannot gain (4). The following discusses these findings in the familiar subdivision.

8.2.1 Practicability-oriented

The results indicate that accessibility-related motives and factors are the most important items for AFN participation for people in the study region, or at least they are mentioned most often. These results represent the first direct demonstration that includes several accessibility factors, motivators, and hindrances to determine their impact on AFN participation. Related, but less focusing on accessibility, Bruce and Som Castellano (2016) stated the difficulty for women to participate in AFNs when not living close by, and for the most part these findings are consistent with those found in this thesis, however the AFNs observed by Bruce and Som Castellano (2016) only partially align with the ones in this work. Not considered were vegetable subscription boxes, farm shops, or organic supermarkets, but especially the former proved to be particularly appealing for participants living further away from AFNs, or those with tight schedules.

Especially the results on the availability factor imply to be of particular importance or to be on people's minds, having been assigned in all but one interview with a frequency of 61 times. The most compelling explanation for this finding is that AFN participation may have many practical or moral motivations, but before participating for these reasons, the AFN must be somewhere reachable and provide the products desired by the participants. Usually, the partakers have very little influence on the location of the AFN, therefore this is considered an outside factor. The personal willingness categories show the extent people are inclined to put in on their behalf to achieve the expected satisfaction from AFN participation. This is interesting and almost suggests that within the practicability rubric the accessibility category is overarching, because if the AFN is not accessible, the reasons for or against AFN participation are irrelevant, or in case of personal willingness not important enough.

The second most frequent category is the self-oriented section, this pattern of results is consistent with the previous literature, that has not included accessibility factors, and was expected to play a major role in this study as well. The particular importance of quality-related motives for AFN participation have been identified by this research, as well as by several other authors (Brown et al., 2009; Carolan, 2017; Lokier et al., 2021; Zoll et al., 2018).

Often the main emphasis of the lifestyle-oriented motives depends on the type of AFN, this was already explained in chapter 3.1.2. In contrast, this study did not divide motives and AFNs because most interviewees participated in several AFNs. Nonetheless, pre-identified patterns proved to be present in this research as well, the findings of Hinrichs' (2000) study on farmers' markets are in-line with the results in this research, especially in terms of the socializing aspect presented by farmers' markets (see e.g., BC5, Pos. 53 highlighted in chapter 7.3.1.1).

Often people stated the better feeling ("Gefühl") they obtained from AFN participation or particular alternative food choices as a reason to participate. One interpretation of these

findings is that especially animal-based products often have negative connotations, increased also through often biased media features that raise awareness about animal welfare issues, or more generally spread fear about possible health concerns in connection to the consumption of conventional products (i.e., not organic). It can be presumed, that the motives in the self-oriented category are almost all biased on the participants' sides, as it cannot be assumed that their lifestyle decisions are all scientifically based. However, results for organically produced food to be healthier or to be environmentally friendlier compared to conventionally produced agricultural products, can certainly be found. Simultaneously, results that locally produced foods are not necessarily better than "food from nowhere" in terms of environmental impact, can be detected as well. The concrete origins of people's lifestyle decisions have not been investigated, and it would be useful to extend the current findings by doing so, particularly to eliminate probable speculations and to not devalue the participants' opinions.

The results on personal conditions imply similar findings as for the accessibility factors, showing that household related motivations, hindrances, or factors mainly determine the extent, type, and occurrence of AFN participation.

Moreover, the findings on budget imply that it mostly depicts a hindrance for AFN participation, because the expenses there are experienced higher. The results on family/ household needs find them to be typical motivators for AFN participation, whereas findings by Bruce and Som Castellano (2016) found household members or partners of AFN participants to sometimes be reluctant towards AFN participation.

The results on the adaptability factor seem to be indicators for the extent to which people can participate in AFNs in their given circumstances. It is therefore highly related to the personal willingness category, but more dependent on things they can influence, while the personal willingness categories refer to outside factors that are mostly unchangeable. The fact that people adapt their preferences to their households' conditions is consistent with Bruce and Som Castellano's (2016) work that deals with challenges AFN participation puts on both, consumers and producers.

It is interesting, that the COVID-19 pandemic was not mentioned by the interviewees as motivator, hindrance, or factor of some kind. One interpretation of this fact is that the interviewees were all participating in AFNs for more than two years and therefore were part of their AFN before the outbreak of the pandemic. Besides my own interpretation of this fact, an additional explanation warrants comment. Interviewees were not directly asked about the impacts the crisis imposed on AFN participation, and for most parts, food acquisition was possible in the same ways as before March 2020, except for increased hygiene concepts and occasional shortages for certain non-essential foods (e.g., baking yeast). Highlighted in chapter 7.1 was the admission stop of new members for many vegetable box subscriptions during the first couple of months of the COVID-19 outbreak, yet the participants of this research

did not try to newly sign up, so no problems could be expected. The admission stop may be explained with people trying to stay in to lower a possible infection with the new virus, making delivery services highly popular, this was also confirmed by Zollet et al. (2021). However, the focus of Zollet et al.'s (2021) research was on the farmers' side and suggested that farmers with multiple distribution channels were more resistant to changes imposed on due to the new restrictions. In their case, which took place in Italy, farmers' markets were particularly negatively impacted because of market closures.

Other times, shortages of certain foods were not as bad in AFNs and people therefore tried to balance these needs by changing their purchasing behavior from mainstream food outlets to AFNs. The importance of short food supply chains in times of crises, especially when restrictions are in place that in some cases impede travelling to other administrative districts, was highlighted by Cattivelli and Rusciano (2020), this study also took place in Italy. Short food supply chains are also often a feature of AFNs, and the authors emphasize this to be of importance because of their greater independence from global supply difficulties.

Similarly, the 2022 Russian invasion of Ukraine was not mentioned in particular to be motivator, hindrance, or factor for AFN participation. Effects of the war related to food occur, especially noticeable through higher food costs in all food outlets, arising through higher costs of energy, especially raising the costs of food production for farmers because fertilizers, gasoline, etc. become more expensive, and in return, food prices are raised to balance the higher production costs. While the inflation is ongoing globally, the perception thereof might not have been as noticeable for people when the interviews were held. The only remarks that could be interpreted as impacts of the war, were the gasoline prices that sometimes prevented people from driving more than necessary, but it was never directly mentioned as a consequence of the Russian invasion of Ukraine. However, a couple of months after the interviews, some interviewees contacted the researcher again and complained about the now-perceived increased food prices in AFNs and that they thought twice about buying certain items. Much work remains to be done before a full understanding of the extent of the impact these crises impose on AFNs, as well as general food outlets, can be gained.

8.2.2 Morality-oriented

Compared to the frequency of coding, morality-oriented motives and factors for AFN participation are less often mentioned than practicability-oriented ones.

The division of categories into sustainability-related and altruistic motives and factors highlights the most mentioned moral motivators for AFN participation. Admittedly, sustainability could also be categorized under the altruistic category, but proved to be broader and more important to the interviewees than the other sub-divisions, and therefore was acknowledged as its own category.

The results show that sustainability-related themes are mentioned as reasons to participate in AFNs, it appears though, as if they are not necessarily the most important ones or the ones people think of first as reasons to participate. Similar results can be observed for the altruistic motives, however for those mentioned, they seem to be more primary motives for AFN participation, especially the “supporting the farmer” attribute. A possible explanation for this is that personal relationships to the AFN operator strengthen the bond between consumer and farmer and bring their circumstances into people’s awareness. Carolan (2017) found a shift from more practicability-oriented to morality-oriented motives in his research which lasted over two years. In the first phase he interviewed new members who had just started participating in AFNs, and then again two years after they initially started participating. In the first round, people stated more self-oriented reasons for participation, while in the second round, the motives were more altruistic. Carolan’s (2017) categories do not completely align with those of this work, however it was possible to transfer them to this work’s categorization. His pattern does not match this study’s findings, suggesting the interviewees, who had all been part of their AFNs for more than two years, would have placed their prior motivation more likely in the morality-oriented category, however that was not the case.

8.3 Research question 3

Which motive is decisive for AFN consumers’ participations and how do different motives influence each other?

Working hypothesis:

6. Personal practicability is the limiting factor and therefore sets the moral limit.
7. When the personal practicability is stretched, the moral limit increases.

The last question of the interviews aimed to find out the most important factors for AFN participation for each participant. While the earlier questions were more general and people were only getting started, this question made a reflective statement possible in which all their previous concerns and thoughts could be accumulated.

The pattern of results is consistent with the previous literature, especially, that self-oriented motives are the central reasons for AFN participation (Zoll et al., 2018), or in the case of Carolan’s (2017) findings, the initial reasons for AFN participation. Whereas the latter researcher has found a change of motivation towards the morality-related motives after reinterviewing two years later, the results of this study do not necessarily indicate similar findings, at least not on a general level. The interviewees have all been AFN participants for at least two years, yet their impetus is still heavily on the practicability side of motivations.

Furthermore, the overall results from the interviews imply that the minority of people rely on only one AFN, and AFN participation is primarily a supporting, but not principal part of people's food acquisition. Therefore, in many cases the moral motives might only be supporting reasons but not decisive ones for this particular set of interviewees. In terms of future research, it would be useful to extend the current findings by examining people who predominantly acquire food from AFNs.

As for the influence of price and distance on AFN participation, the pattern of results from the modified choice experiments is consistent with that of previous literature, in which the price influences the willingness to participate in AFNs (McGuirt et al., 2014). Yet, certain limitations of the modified choice experiment arise. For example, it only focuses on price and distance, qualitative aspects have been explained to be different between mainstream supermarkets and AFNs (e.g., organically certified) but other differences have been left undefined, a more product-focusing aspect could refine these results. Additionally, a scenario in which both, AFN and supermarket price and distance are the same, has not been tested.

9 Conclusion

The aim of this thesis was to determine the predominate motives and factors for consumers' AFN participation in rural areas. The study's rural setting and the incorporation of accessibility themes sets it apart from previous works, which mostly concentrated on urban settings not considering accessibility as an influencing matter for AFN participation.

For the theoretical base of this study, previous findings on consumers' motives for AFN participation were arranged in a new categorization and expanded with accessibility aspects. Motives were expected to be either inspired by being practicable for the participant or by appealing to the participants' moral conscience.

By using web-based scoping for the analysis of the accessibility structures in relation to AFNs in the study region, it can be concluded that rural areas provide a wide range of possibilities for those interested in AFN involvement. However, there are differences between certain rural structures and the establishment of different types of AFNs within these structures, that is, farmers' markets and organic supermarkets are typically located in medium-sized towns or bigger cities in relatively close proximity to the rural districts, while farm shops, CSAs, and farms offering subscription-based delivery boxes are spread out to a higher extent in smaller communities or villages. This is an important finding in the understanding of rural consumers' accessibility factors and their willingness to use private cars or to rely on public transportation services. Because of the scattered locations of AFNs and people typically participating in more than one AFN, this study suggests that rural participants of AFNs rely on their cars for AFN participation. This has two main reasons; first, it is more convenient, and second, public transportation in rural areas is often not very well developed in terms of the time schedule or is lacking in reliability.

Based on the analysis of the interviews, the main conclusion that can be drawn is, that for rural consumers of AFNs, practicability motives always play a role in AFN participation with a special relevance of accessibility factors and self-oriented motives. Morality is identified as a subordinate motivator and often might be subconscious or gradually gaining more importance with an increasing time of AFN participation.

Still, and to bring this back to what was stated in the introductory section, rural people do not let themselves be put off in AFN participation, even if for them it requires an extra effort in certain aspects, such as accessibility factors that might be more complicated compared to living in an urban setting. To sum up, for rural people participating in AFNs, the prior motivations lie somewhere else and are worth it to go the extra mile.

In the past, crises proved to be catalysts for societal change, as can be seen in the move from a trusting society in the mid-19th century, to a more critical and questioning one, due to a sequence of turning points. A question for further research to explore is therefore how the

current string of crises, namely the COVID-19 pandemic and the economic consequences of the 2022 Russian invasion of Ukraine are transforming today's societies, also in relation to food procuring and AFN participation, a question to which the findings of this thesis can be compared to.

10 Abstract

Alternative food networks (AFNs) offer a different approach of food procuring compared to mainstream supermarkets. They are especially popular among urban individuals; the urban setting is also where most research has been conducted. This work examines rural consumers' motives to participate in AFNs in three mostly rural south-German administrative districts, by also taking into account accessibility aspects, something that has largely been overlooked in previous research. Accessibility is considered of particular relevance for rural participants of AFNs, as rural infrastructure is less dense than urban infrastructure. By taking a comprehensive look at AFNs in the three administrative districts, consumers' motives are analyzed by classifying the results into practicality- and morality-oriented categories. The 17 AFN participants are investigated via semi-structured interviews, which are combined with modified choice experiments, to specifically test the influence of distance and price. The spatial analysis of the study region is carried out through web-based scoping. The results of the interviews reveal accessibility aspects to be of importance for rural consumers, but not the decisive factors for AFN participation. Prior motivation is dominated by self-oriented incentives, such as qualitative aspects, or lifestyle-oriented aspirations, both in the practicability category. Morality aspects are rarely decisive for AFN participation, however, expand in importance with increasing time of AFN participation. The results of this work have several implications for further research in the rural AFN setting, both in studies on the consumer side and in relation to other AFN participants, such as farmers or farm managers. Likewise, AFNs should be taken into consideration for rural food supply structures.

Keywords: alternative food networks (AFN), consumers' motives, rural areas, semi-structured interviews, motive categorization

11 Kurzzusammenfassung

Alternative Lebensmittelnetzwerke (AFNs) stellen, verglichen zu regulären Supermärkten, ein Gegenangebot der Lebensmittelbeschaffung dar. Besonders beliebt sind sie bei Städter:innen, auf urbanen Zentren liegt gleichzeitig das Hauptaugenmerk der Forschung. Die vorliegende Arbeit untersucht die Motive ländlicher Verbraucher:innen hinsichtlich ihrer AFN-Teilnahme in drei vorwiegend ländlichen süddeutschen Landkreisen. Zusätzlich werden Erreichbarkeitsaspekte miteinbezogen, dies wurde in vorherigen Forschungsarbeiten weitgehend außer Acht gelassen. Erreichbarkeit wird als besonders relevant für ländliche AFN-Teilnehmende erachtet, da die ländliche Infrastruktur weniger dicht aufgebaut ist als die städtische. Durch einen umfassenden Blick auf AFNs in den drei Landkreisen, werden die Motive der Verbraucher:innen durch Einordnung der Ergebnisse in praktikabilitäts- und moralitätsorientierte Kategorien analysiert. Die 17 AFN-Teilnehmenden werden in semistrukturierten Interviews befragt, welche mit modifizierten Entscheidungsexperimenten kombiniert sind, um den Einfluss von Distanz und Preis genauer zu untersuchen. Die Raumanalyse der Studienregion erfolgt durch internetbasierte Recherche. Die Ergebnisse der Interviews zeigen, dass Erreichbarkeitsaspekte für ländliche Konsument:innen wichtig sind, aber nicht den entscheidenden Faktor für eine AFN-Teilnahme darstellen. Die Hauptmotivation wird einerseits von selbstbezogenen Anreizen, wie qualitativen Aspekten dominiert und andererseits von lebensstilbezogenen Zielen, beide gehören der Praktikabilitätskategorie an. Moralitätsaspekte sind selten entscheidend für eine AFN-Teilnahme, allerdings gewinnen sie an Bedeutung, je länger eine solche Teilnahme besteht. Die Ergebnisse dieser Arbeit sind für weitere Forschungen im ländlichen AFN-Umfeld von Bedeutung, sowohl bei Untersuchungen hinsichtlich der Konsument:innenseite als auch in Bezug auf andere AFN-Teilnehmende, wie Landwirt:innen oder Betriebsleiter:innen. Ebenso sollten AFNs größere Beachtung in der ländlichen Versorgungsstruktur finden.

Schlüsselwörter: alternative Lebensmittelnetzwerke, Konsumentenmotive, ländliche Gebiete, semistrukturierte Interviews, Motivkategorisierung

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13 Appendix

Interview Guide (German original)

Selbstvorstellung und Einverständniserklärung

Vielen Dank, dass Sie sich heute für dieses Interview Zeit nehmen. Das Ziel meiner Masterarbeit, ist es, herauszufinden, welche Motive für die Lebensmittelbeschaffung am wichtigsten sind. Hierzu interviewe ich Konsument:innen aus der Region Donau-Iller, genauer gesagt aus dem Alb-Donau-Kreis, dem Landkreis Biberach und aus Ulm. Das Interview wird vermutlich eine halbe bis dreiviertel Stunde dauern und wir besprechen Dinge, die den alltäglichen Lebensmitteleinkauf betreffen. Betreut werde ich von Prof. Bernhard Freyer und Dr. Lucía Diez Sanjuan vom Institut für Ökologischen Landbau an der Universität für Bodenkultur in Wien, sowie von Prof. Sebastian Hess im Fachgebiet Agrarmärkte an der Universität Hohenheim in Stuttgart.

Ihre Antworten werden gemäß den ethischen Richtlinien für Befragungen, denen wir als Wissenschaftler:innen verpflichtet sind, vertraulich und anonym behandelt. Falls eine Frage für Sie unangenehm ist, müssen Sie diese nicht beantworten.

Die thematischen Schwerpunkte der Befragung umfassen die Motivation, Ansprüche und Erreichbarkeit von alternativen Lebensmittelgeschäften. Gefragt sind Ihre persönlichen Erfahrungen und Einschätzungen. Besteht Ihrerseits das Einverständnis mit der Aufzeichnung des Interviews? Das würde uns eine lückenlose Auswertung Ihrer Antworten ermöglichen und die Arbeit erheblich erleichtern.

Dann habe ich hier noch eine schriftliche Einverständniserklärung.

Wenn während unseres Gesprächs irgendwann etwas aufkommt, dass Sie als wichtig empfinden, dann haben Sie bitte nicht das Gefühl, es würde nicht zum Thema passen, auch wenn es vielleicht nicht direkt den Anschein macht, auf meine Frage zu passen, es kann immer gesagt werden.

Haben Sie jetzt, bevor wir anfangen, noch irgendwelche Fragen, zu jeglichen Aspekten meiner Arbeit?

Vorstellungsrunde Interviewpartner

1. Woher kommen die meisten Ihrer Lebensmittel her?
 - a. Anschlussfragen, z.B. Was für ein Supermarkt (regional, Bio, Discounter, etc.)?

Allgemeine Motivation und Ansprüche

2. Wie lange gehen Sie schon zu *Projekt XY*?/ Wie lange machen Sie schon bei XY mit?
3. Welche Gründe haben Sie anfangs dazu bewogen, bei *dem Projekt* einzusteigen/ mitzumachen?
 - a. Anschlussfragen, z.B. Warum Bio/ Regionalität/ ... (je nach dem was genannt wird)?
4. War es eine Entscheidung, mit der Sie sich vorher schon länger beschäftigt haben? Gab es einen konkreten Anlass?
5. Wurden Ihre Erwartungen hinsichtlich *des Projektes* erfüllt? Inwiefern, inwiefern nicht?
6. Welches sind für Sie heute die wichtigsten Gründe, weiter dabei zu sein?
7. Hat sich Ihr Verhalten, seit Sie beim Projekt teilnehmen/ mitmachen, in einem Bereich, außer im Bereich Ernährung, verändert?
 - a. Anschlussfrage, je nach Antwort. z.B. In welchem, inwiefern, warum, etc.?

Erreichbarkeit

8. Wohnen Sie auf dem Land oder in der Stadt?
9. Wie gelangen Sie zu XY? (Auto, zu Fuß, Fahrrad, ÖPNV)
10. Wie weit ist es zu XY? (Distanz und Zeit)
11. Wie schätzen Sie die Erreichbarkeit ein?
 - a. Ist es leicht/ schwierig für Sie, dort hinzukommen/ mitzumachen? Inwiefern?
12. Gibt es etwas, dass Sie (sonst noch) daran hindert mehr bei XY zu kaufen?
Anschlussfragen: z.B. Öffnungszeiten, Preis, höherer Zubereitungsaufwand, nicht alle gewünschten Produkte etc.
 - a. Was wäre noch zu verbessern?

Modified choice experiment

13. Jetzt würde ich gerne ein paar Szenarien durchgehen, die mir Ihre Einkaufspräferenzen ein wenig besser veranschaulichen.

Ich habe hier eine Tabelle, die die Kosten eines Einkaufs bei Projekt XY im Vergleich zu einem Supermarkt widerspiegelt, es handelt sich um einen hypothetischen Preis und nicht um die tatsächlichen Preise. Außerdem habe ich eine Wegzeit angegeben, die Sie benötigen würden, um die Lebensmittel bei Projekt XY bzw. im Supermarkt zu kaufen/ abzuholen. In den ersten Szenarios kommt Sie der Einkauf bei Projekt XY günstiger, wie wenn Sie im Supermarkt einkaufen würden.

14. Gleiche Wegzeit Szenarien (Preisnachlass AFN):

Wenn der Preis von Projekt XY 5% weniger wäre, wie dieselben Produkte vom Supermarkt, also der Preis bei Projekt XY läge bei 14,25 € im Gegensatz zu 15,00 € im Supermarkt, würden Sie bei Projekt XY einkaufen, wenn es gleich weit weg wäre wie der Supermarkt?

15. Längere Wegzeit Szenarien (Preisnachlass AFN):

Wenn der Preis von Projekt XY 5% weniger wäre, wie dieselben Produkte vom Supermarkt, also der Preis bei Projekt XY läge bei 14,25 € im Gegensatz zu 15,00 € im Supermarkt, würden Sie bei Projekt XY einkaufen, wenn es 5 Minuten weiter/ 10 Minuten weiter/ 15 Minuten weiter weg wäre wie der Supermarkt?

16. Gleiche Wegzeit Szenarien (Preisaufschlag AFN):

Die erste Hälfte der Szenarien ist geschafft.

Jetzt habe ich hier eine weitere ganz ähnliche Tabelle, diesmal ist der Einkauf im Projekt XY teurer als derselbe Einkauf im Supermarkt.

Wenn der Preis vom Supermarkt 5% weniger wäre, wie dieselben Produkte vom Projekt XY, also der Preis im Supermarkt läge bei 14,25 € im Gegensatz zu 15,00 € bei Projekt XY, würden Sie bei Projekt XY einkaufen, wenn es gleich weit weg wäre wie der Supermarkt?

17. Kürzere Wegzeit Szenarien (Preisaufschlag AFN):

Wenn der Preis vom Supermarkt 5% weniger wäre, wie dieselben Produkte vom Projekt XY, also der Preis im Supermarkt läge bei 14,25 € im Gegensatz zu 15,00 € bei Projekt XY, würden Sie bei Projekt XY einkaufen, wenn es 5 Minuten näher/ 10 Minuten näher/ 15 Minuten näher wäre wie der Supermarkt?

Abschlussfragen

18. Wenn Sie jetzt nochmal unser Gespräch Revue passieren lassen, was ist für Sie der entscheidende Faktor, um bei Projekt XY mitzumachen, oder eben nicht? Wichtigstes Kriterium?
19. Gibt es noch etwas, dass ich hätte ansprechen sollen, dass Ihnen noch wichtig wäre oder etwas, dass Sie hinzufügen möchten, damit wir noch darüber sprechen können?

Modified Choice Experiment Tables (German original)

Price Discount AFN

Preisnachlass AFN	Supermarktpreis	Preis Alternative	Wegzeit zum AFN im Vergleich Supermarkt zum
5%	15,00 €	14,25 €	Gleich
			+5 Minuten (länger)
			+10 Minuten
			+15 Minuten
10%	15,00 €	13,50 €	Gleich
			+5 Minuten (länger)
			+10 Minuten
			+15 Minuten
20%	15,00 €	12,00 €	Gleich
			+5 Minuten (länger)
			+10 Minuten
			+15 Minuten
30%	15,00 €	10,50 €	Gleich
			+5 Minuten (länger)
			+10 Minuten
			+15 Minuten
40%	15,00 €	9,00 €	Gleich
			+5 Minuten (länger)
			+10 Minuten
			+15 Minuten

Price Markup AFN

Preisauflschlag AFN	Supermarktpreis	Preis Alternative	Wegzeit zum AFN im Vergleich Supermarkt zum
5%	14,25 €	15,00 €	Gleich
			-5 Minuten (kürzer)
			-10 Minuten
			-15 Minuten
10%	13,50 €	15,00 €	Gleich
			-5 Minuten (kürzer)
			-10 Minuten
			-15 Minuten
20%	12,00 €	15,00 €	Gleich
			-5 Minuten (kürzer)
			-10 Minuten
			-15 Minuten
30%	10,50 €	15,00 €	Gleich
			-5 Minuten (kürzer)
			-10 Minuten
			-15 Minuten
40%	9,00 €	15,00 €	Gleich
			-5 Minuten (kürzer)
			-10 Minuten
			-15 Minuten

Questionnaire (German original)

1. Wohnort:

Postleitzahl: _____

Ort: _____

2. Geburtsjahr:

3. Geschlecht:

- ☐ Weiblich
- ☐ Männlich
- ☐ Divers
- ☐ keine Angabe

4. Wie viele Erwachsene und/ oder Kinder wohnen mit Ihnen in Ihrem Haushalt?

_____ Erwachsene

_____ Kinder (bis 18 Jahre)

5. Höchster Bildungsabschluss:

- ☐ kein Schulabschluss
- ☐ Hauptschulabschluss
- ☐ Realschulabschluss
- ☐ (Fach-)Hochschulreife
- ☐ Abgeschlossene Ausbildung
- ☐ Hochschulabschluss

Interview Guide (English translation)

Personal introduction and declaration of consent

Thank you for taking the time for this interview today. The aim of my master's thesis is to find out which motives are most important for food procurement. For this I am interviewing consumers from the Donau-Iller region, more precisely from the Alb-Donau-Kreis, the Landkreis Biberach, and from the Landkreis Ravensburg. The interview will probably last between half an hour up to 45 minutes, and we will discuss things that relate to everyday grocery shopping. I am supervised by Prof. Freyer, and Dr. Diez Sanjuan, both from the institute for Organic Farming at the University for Natural Resources and Life Sciences in Vienna, and by Prof. Hess in the department of agricultural markets at the University of Hohenheim in Stuttgart.

Your answers will be treated confidentially and anonymously in accordance with the ethical guidelines for surveys to which we as scientists are committed. If you are uncomfortable with a question, you do not have to answer it. The thematic priorities of the survey include the motivation, demands, and accessibility of alternative grocery stores. We are interested in your personal experiences and assessments. Do you agree to the recording of the interview? This would enable us to evaluate your answers completely and make our work much easier.

If so, then I have a written declaration of consent here.

If at some point during our conversation something comes up that you feel is important, then please don't feel that it doesn't fit the topic, even if it doesn't seem to fit my question directly, it can always be said.

Now, before we start, do you have any questions about any aspect of my work?

Introduction of interview partners

1. Where does most of your food come from?
 - a. Follow-up questions, for example, what kind of supermarket (regional, organic, discounter, etc.)?

General motivation and demands

2. How long have you been going to project XY?/ How long have you been participating in project XY?
3. What were your initial reasons for joining/participating in the project?
 - a. Follow-up questions, for example, why organic/ regionality/... (depending on what is mentioned)?
4. Was it a decision that you had been thinking about for a long time beforehand? Was there a specific reason?
5. Were your expectations regarding the project met? How or how not?

6. What are the most important reasons for you today to continue to participate?
7. Since participating in the project, has your behavior changed in any area other than nutrition?
 - a. Follow-up question, depending on the answer. For example, in which area, to what extent, why, etc.?

Accessibility

8. Do you live in the country or in the city?
9. How do you get to XY? (Car, foot, bike, public transportation)
10. How far is it to XY? (Distance and time)
11. How do you assess the accessibility?
 - a. Is it easy/ difficult for you to get there/ to participate? In what way?
12. Is there anything other preventing you from buying more at XY? Follow-up: For example, opening hours, price, higher preparation effort, not all desired products etc.
 - a. What else could be improved?

Modified choice experiment

13. Now I'd like to go through a few scenarios that will help me understand your shopping preferences a little better. I have a table here that reflects the cost of a purchase at project XY compared to a supermarket, they are hypothetical prices and not actual prices. I have also given a travel time that you would need to buy/ pick up the groceries from project XY or the supermarket. In the first scenario, shopping at Project XY is cheaper than shopping at the supermarket.

14. Same distance scenarios (price discount AFN):

If Project XY's price was 5% less than the same products from the supermarket, that is Project XY's price was €14.25 as opposed to €15.00 at the supermarket, would you shop at Project XY if it was the same distance as to the supermarket?

15. Further distance scenarios (price discount AFN)

If the price of Project XY was 5% less than the same products from the supermarket, i.e., the price at Project XY was €14.25 as opposed to €15.00 at the supermarket, would you shop at Project XY if it was 5 minutes further/ 10 minutes further/ 15 minutes further away than the supermarket?

16. Same distance scenarios (price markup AFN)

The first half of the scenarios is completed.

Now, here, I have another very similar table, this time the purchase in project XY is more expensive than the same purchase in the supermarket.

If the price from the supermarket was 5% less than the same products from Project XY, i.e., the price in the supermarket was €14.25 as opposed to €15.00 for Project XY, would you buy from Project XY if it was the same distance as to the supermarket?

17. Closer distance scenarios (price markup AFN)

If the price from the supermarket was 5% less than the same products from Project XY, i.e., the price at the supermarket was €14.25 as opposed to €15.00 at Project XY, would you shop at Project XY if it was 5 minutes closer/ 10 minutes closer/ 15 minutes closer than the supermarket?

Closing questions

18. If you now look back at our conversation, what is the decisive factor for you to take part in project XY, or not? Most important criterion?
19. Is there anything else that I should have mentioned that is important to you or that you would like to add so that we can discuss it further?

Modified Choice Experiment Tables (English translation)

Price Discount AFN

Price discount at AFN	Price at supermarket	Price at AFN	Distance compared to AFN to supermarket
5%	15,00 €	14,25 €	Same
			+5 minutes (further)
			+10 minutes
			+15 minutes
10%	15,00 €	13,50 €	Same
			+5 minutes (further)
			+10 minutes
			+15 minutes
20%	15,00 €	12,00 €	Same
			+5 minutes (further)
			+10 minutes
			+15 minutes
30%	15,00 €	10,50 €	Same
			+5 minutes (further)
			+10 minutes
			+15 minutes
40%	15,00 €	9,00 €	Same
			+5 minutes (further)
			+10 minutes
			+15 minutes

Price Markup AFN

Price markup at AFN	Price supermarket at	Price at AFN	Distance to AFN compared to supermarket
5%	14,25 €	15,00 €	Same
			-5 minutes (shorter)
			-10 minutes
			-15 minutes
10%	13,50 €	15,00 €	Same
			-5 minutes (shorter)
			-10 minutes
			-15 minutes
20%	12,00 €	15,00 €	Same
			-5 minutes (shorter)
			-10 minutes
			-15 minutes
30%	10,50 €	15,00 €	Same
			-5 minutes (shorter)
			-10 minutes
			-15 minutes
40%	9,00 €	15,00 €	Same
			-5 minutes (shorter)
			-10 minutes
			-15 minutes

Questionnaire (English translation)

1. Place of residence:

Postal code: _____

Place: _____

2. Year of birth:

3. Gender:

- ☐ Female
- ☐ Male
- ☐ Diverse
- ☐ Prefer not to say

4. How many adults and/ or children live with you in your household?

_____ Adults

_____ Children (up to 18 years old)

5. Highest educational qualification:

- ☐ no school graduation
- ☐ Hauptschulabschluss
- ☐ Realschulabschluss
- ☐ (Fach-)Hochschulreife
- ☐ Completed vocational training
- ☐ University degree