Grown close to home:
a typology of short food supply chain business models in the Netherlands

MSc Thesis

Student: Mirjam Fondse

Student number: 880710-242-100

Department: Management Studies (MST)

Date: 17 December 2012

Grown close to home:
a typology of short food supply chain business models in the Netherlands

Supervisor WUR:
dr. E.F.M. Wubben
Co-reader WUR:
S. Pascucci PhD
Supervisor LEI:
H. Kortstee
MSc programme:
Management, Economics & Consumer Studies
Course code:
MST-80433 (33 ECTS)

WAGENINGEN UR
For quality of life
LEI
WAGENINGEN UR

EXECUTIVE SUMMARY

Introduction

The interest in food supply chains other than conventional ones has increased rapidly in recent years. New food chains have been established in which shortening the food chain and the relationship between producer and consumer are key elements. In this research these chains are referred to as short food supply chains (SFSC). The change in consumer perception of food products -due to food scandals and GMO practises- on the one hand and the pressure on the income of farmers -due to the modernisation and mechanisation of the agro-food sector- on the other, certainly contributed to this (Renting et al., 2003, Ilbery and Maye, 2005, Sonnino and Marsden, 2006).

Also in the Netherlands one could notice this development brought about by different stakeholders. For example, there are farmers who want to sell their products directly through different channels and initiatives are taken by organizations in the retail, foodservice or wholesale sector which strive to source more locally and/or increase the availability of regional foods. While the interest in SFSCs and provision of local food is growing, SFSCs are not widely studied from a business perspective. This research will contribute to this deficiency by providing a better understanding of their business models. Therefore, the following research objective is formulated:

To derive a typology of short food supply chains in the Netherlands, by creating an overview and classification of short food supply chain initiatives, based on a conceptual framework in which organizational formats, value creation and value appropriation are key elements.

Literature study

By means of a thorough literature study relevant insights were provided to develop a theoretical framework for a structural understanding of SFSCs (Chapter 2). A SFSC is a wide-ranging concept and varying interpretations are used; there is no consensus on a precise definition (King et al., 2010). For the sake of clarity we derived an operational definition, based on our literature study, which is fundamental for our empirical research. Accordingly, a SFSC comprises:

The production and distribution of food products dedicated to regional or/and quality based production which is known for the connection between producer and consumer.

The structure of our theoretical framework is based on the concept of a business model and includes predominantly four constructs; ambition, value proposition, value creation and value capture. By lack of empirical support we posit to start with the ambition of the SFSC initiator which is subsequently connected to their value proposition and comprises SFSCs' differentiating characteristics found in literature. Hence, the following characteristics are taken into account; geographical proximity, social orientation and supposed environmental sustainability. Also their orientation towards economic viability is a well-known characteristic of SFSCs, though this is comprised by the value capture construct.

The value creation of SFSCs is substantiated into their organizational formats for which theories concerning supply chain collaboration, cooperation and coordination are fundamental (section 2.3). Lastly, their economic performance is included represented by the value capture. Propositions were derived to investigate how the constructs found in literature apply to Dutch SFSCs. Empirical research provides us insights to accomplish our research goal.

Methodology

To fulfil, the strategy of a qualitative survey and structured interviews is selected. The structure and design of the empirical research is provided by the theoretical framework in which the different constructs are set as variables. Cases were selected by means of theoretical and convenient sampling and had to be involved in the (in)direct supply of preferably non-processed food products in the Netherlands, and dedicated to regional food production. Next to these criteria cases were selected using typical SFSC market arrangements found in literature (e.g. farm shop, markets, home delivery services, CSA practices and restaurants etc.). In total 57 interviews are held with the representatives of chain initiators and cases are spread around the Netherlands. Open coding is used to analyse the open questions together with statistical tests to analyse closed questions.

Results and conclusion

To make a classification among SFSCs, conclusions are based on how the different constructs found in literature apply to Dutch SFSCs and whether or not the proposed connections could be confirmed. Meanwhile examining and assessing our theoretical propositions, different clusters of relations appeared. Sufficient numbers of cases show comparable results (i.e. similarities) which allowed the researchers to recognize certain patterns regarding SFSC business models. Accordingly, we developed a typology which reveals 3 different types of SFSC business models.

The first type comprises SFSCs driven by the aim to increase the economic viability of the initiator's business. They seem to create predominantly a competitive advantage regarding the producer-consumer interaction, namely a face to face (direct) interaction. They do not involve a clear value proposition regarding geographical proximity or environmental sustainability. These types of SFSCs are not likely to have a collaboration strategy and hence use preferably the market to govern their transactions with other involved partners. The price is therefore used to coordinate transactions, though we discovered also that certificates, personal relationships and informal agreements play a coordinating role. Our results revealed that the chain initiators are likely to receive a higher profit margin.

The second type SFSCs are considered as producer support SFSCs. This is substantiated in their value proposition attempting to reduce the number of food miles and a proximate interaction between producer and consumer. The value creation of these SFSCs could be characterized by a collaboration strategy with involved actors. Subsequently, this involves that more integrated governance structures than the market are used, such as contracts and relation-based alliances. On the profit margin of the chain initiators our results are inconclusive. Nonetheless, we can conclude that the suppliers of these initiatives are likely to receive a higher margin of their food products.

The third type of SFSC characterizes itself by the connection between producer and consumer. Our results revealed that this connection is an important SFSC driver which is substantiated into their value proposition. Although our plausible results, it requires substantial research to further investigate their value creation and value capture.

This research report provides insights in how Dutch SFSCs are constructed according to characteristics found in the literature. This empirically based typology demonstrates how SFSCs reveal different business models and therefore seems to be the first investigation of SFSCs from a business perspective.

ACKNOWLEDGEMENTS

"No man is an island, entire of itself"; we all need the support, encouragement and talents of others to succeed (John Donne 1571–1631).

During my years at Wageningen University, I have been continuously interested in the interaction of demand and supply of food with respect to the wellbeing of involved parties and society; I have always felt that there are a lot of improvements in this area. This master thesis provided me the opportunity to combine this interest and further develop my academic skills.

The process of writing a thesis has been a valuable experience, a complete journey comprised of new opportunities and challenges to concur. I have learned a lot from which I could benefit during my future career. Although writing a thesis is rather an individual project, the result would not have been the same without the support of others.

Therefore, I would like to thank my supervisor Emiel Wubben for his supervision and guidance during my thesis research, for providing me useful insights and patience during our meetings. I would like to thank my co-reader Stefano Pascucci as well for sharing its knowledge and experience. This research project is facilitated by the Dutch Agricultural Economics Research Institute (LEI) for which I thank Harry Kortstee. Furthermore, the empirical research had never succeeded without the participation of many respondents. Hence, I would also like to thank the interviewees for their time in participating in my research.

Apart from the academic support, I have got great support from my family and friends. My parents made it possible to complete this study program and explore the world outside an academic area as well. My friends, with special attention to Dirk, provided me the required distraction, entertainment and made it easier to complete this research.

Last but not least I thank you for taking the time to read this research. I hope you will enjoy it.

CONTENTS

LIST OF TABLES AND FIGURES

Tables

Figures

1 INTRODUCTION

This introduction chapter provides in section 1.1 the background information of this research concerned with short food supply chains. Subsequently, section 1.2 and 1.3 present respectively the formulated research objective and our research questions. Section 1.4 aims to clarify the outlook of the research by presenting a research framework and lastly, section 1.5 provides an overview of the report.

1.1 Background information

The interest in food supply chains other than conventional ones has increased rapidly in recent years. New food chains have been established in which shortening the food chain and the relationship between producer and consumer are key elements, especially in Europe and the United States (Moynihan and McDonagh, 2008). The change in consumer perception of food products -due to food scandals and GMO practises- on the one hand and the pressure on the income of farmers -due to the modernisation and mechanisation of the agro-food sector- on the other, certainly contributed to this (Renting et al., 2003, Ilbery and Maye, 2005, Sonnino and Marsden, 2006).

In many cases this development is associated with an increased interest in so called '*local foods*'. Though, some authors prefer the term alternative food supply chain as this reflects the aim of many of them; to provide an alternative for the globalised and industrialized food production (Renting et al., 2003). Others rather speak in terms of networks, as it will involve networks of social interactions between primary producers and end-consumers (Pascucci, 2010). However, in this research project the labels 'short' and 'chain' are used as food chains are the mechanism through which food moves from producer to consumer and the aim is to shorten this food supply chain.

A short food supply chain (SFSC) is a wide-ranging concept and varying interpretations are used; there is no consensus on a precise definition (King et al., 2010). For example, on-farm direct sales to consumers are interpreted as a type of SFSC, but also the international supply of a regional food product is considered as a type of SFSC. Nevertheless, we could say that they all share the aim to reconfigure the relationships between primary producers and consumers. Accordingly, the following preliminary definition of short food chains (SFSC) is maintained based on the work of Marsden (2000).

A SFSC is a food supply chain that short-circuits the long, anonymous supply chain characteristics of the industrial mode of food production, and has the intention to increase the generated added-value.

Although SFSCs are of recent date, they have been studied widely. However, an orientating review of relevant literature learns us that literature written from a business point of view is less available (Venn et al., 2006). In line with Forsman and Paananen (2004), the authors contributing to this field predominantly represent disciplines such as (social) rural development (Allen et al., 2003, DuPuis and Goodman, 2005, Marsden et al., 2000, Renting et al., 2003, Sage, 2003, Van Der Ploeg et al., 2000) or geographical (political) sciences (Feagan, 2007, Goodman, 2004, Little et al., 2011, Watts et al., 2005). Moreover, many studies discuss the potentials of SFSCs, their outcomes and their eventual impact on the society, economy and environment. Instead of discussing the potentials of SFSCs, this research focusses on the formats, inputs and value creation of SFSCs. What actually constitutes these SFSCs? This research will not discuss the position or role of SFSCs, but aims at a better understanding of the value creation of SFSCs. But value creation is not the only issue; it is key to capture created value. Enhancing our understanding of the conditions of SFSCs should result in a better understanding of their value proposition, creation and value appropriation of SFSCs.

Also in the Netherlands one notices this development brought about by different stakeholders. For example, there are farmers who want to sell their products directly through different channels, e.g. the concept of '*Landwinkel*'. Furthermore, initiatives are taken by certain organizations in the retail, foodservice or wholesale sector. For instance '*Willem en Drees'* or '*Streekselecties*', strive to source more locally and try to make local foods more easily available for the end consumer. Correspondingly, (local) communities seek for more self-sufficiency in terms of food and sustainable solutions. Hence multifunctional farming and the responsiveness of regional development to local foods are well discussed topics. Driven by the state, market or society, SFSC initiatives arise in varied ways. However, a clear overview is still missing. Hence, we are interested in answering the question: 'What is actually going on regarding SFSCs in the Netherlands?'

In order to get an idea about the developments concerning SFSCs in the Netherlands, empirical data is required to investigate the current state of SFSCs. Unlike the majority of recent European literature which relies heavily on individual examples of non-conventional food networks (Venn et al., 2006, Holloway et al., 2007), this research takes a broad approach. As already mentioned the conceptual SFSC is not clearly defined, which makes it difficult to understand and analyse SFSCs among different places (Abatekassa and Peterson, 2011). Instead of first defining a SFSC, this research investigates what the content of a SFSC involves in practice. Since local aspects of SFSCs are not everywhere the same (Allen et al., 2003, Feagan, 2007), we assume that the aspects of SFSCs depend on when and where the research is conducted.

1.2 Research objective

This research focuses on SFSC initiatives in the Netherlands, for which there is no overview as yet. While the interest in SFSCs and provision of local food is growing, SFSCs are not widely studied from a business perspective. This research will contribute to this deficiency by providing a better understanding of the current state of SFSCs in the Netherlands; their conditions to add value. This research is practice-oriented and results in an overview and better understanding of SFSCs in the Netherlands. With this aim, the following research objective is defined:

To derive a typology of short food supply chains in the Netherlands, by creating an overview and classification of short food supply chain initiatives, based on a conceptual framework in which organizational formats, value creation and value appropriation are key elements.

1.3 Research questions

According to the research objective the following central research question (CRQ) is defined.

CRQ: *Which short food supply chain typology can be developed with regard to the Netherlands?*

In order to provide an answer to this central research question the following sub-questions (RQ1-RQ3) are derived.

RQ1: *Which variables should be included in the theoretical framework for a structural understanding of SFSCs to get insights in their characteristics, organizational formats and business models*?

- Which relevant definitions of SFSCs can be found in literature?
- Which relevant theories can be found in literature about the organizational formats of SFSCs?
- Which relevant theories can be found in literature about the value creation and appropriation of SFSCs?

RQ2: *Which research methods have to be used to conduct a valid and reliable data gathering and classification of SFSCs in the Netherlands?*

RQ3a: *What characterizes SFSCs in the Netherlands?*
RQ3b: *Which classification represents SFSCs in the Netherlands?*

1.4 Research Framework

A research framework has been developed to clarify the research (Figure 1). It provides a schematic presentation of the research and comprises the steps that have to be taken to get an answer to each research question. In short, by means of a literature study and empirical research it should become clear what the concept of a SFSC involves in a Dutch context and hence provide a typology. To avoid limitations by prioritizing one definition or element of a SFSC, multiple definitions and relevant organizational topics from literature are used.

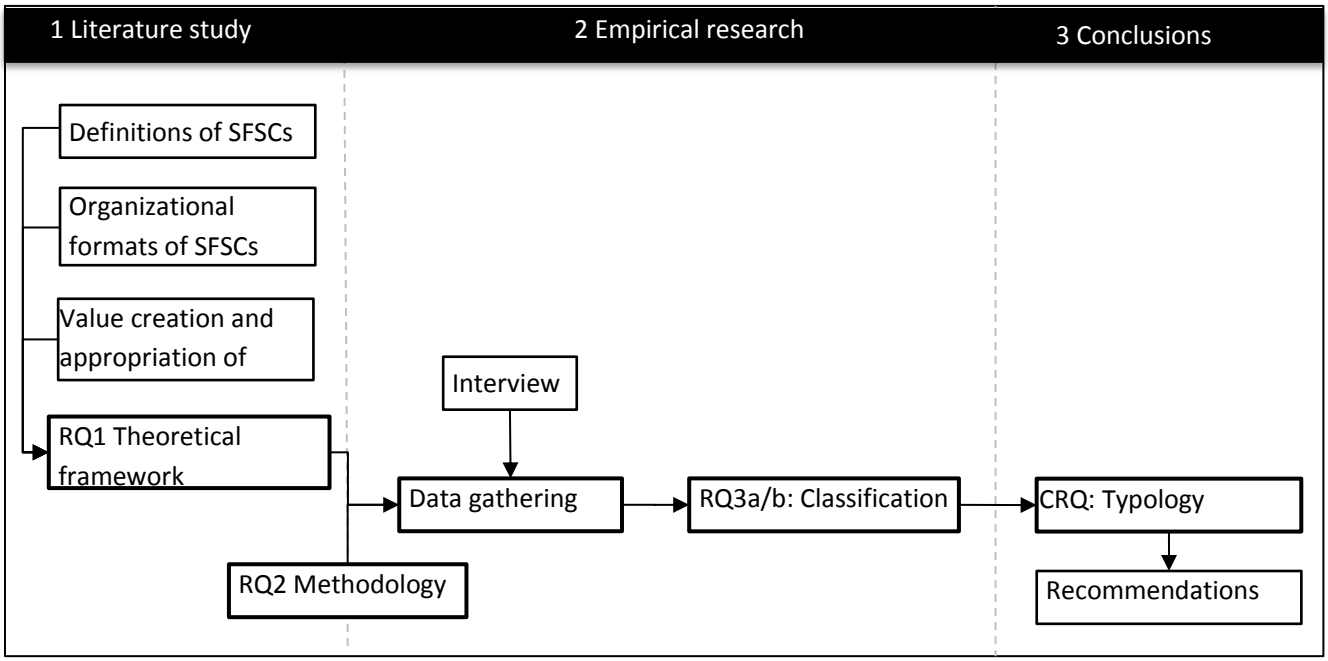


Figure 1: Research framework

The first phase of the research involves a *literature study* and provides a theoretical framework which is fundamental for the empirical research. This framework contents the literature driven-structure to make a classification of Dutch SFSCs. A review of different definitions of SFSCs, their organizational structures and their value creation and appropriation, should bring about the concept SFSC, their internal structures and external networking as well as the way in which they can create and capture value. This theoretical review provides essential variables contributing to a structural understanding of SFSCs' value creation and appropriation.

Between the first and the second phase of the research (i.e. the empirical research) the *methodology* of the study takes a central place. In this phase the results of the literature study are processed in a questionnaire in order to obtain empirical results. Hence, special attention is given to the operationalization of constructs derived from literature and a description of the data. The structure of the questionnaire is provided by the theoretical framework and data is collected with the help of interviews.

The second phase comprises the *empirical research* which comprises the data gathering and analysis of the results. The data gathering delivers valuable information about established SFSCs in the Netherlands which is helpful for classifying the SFSCs. The research ambition is to collect as much data of SFSCs as possible in order to provide a representative overview. After gathering the required data, results are

analysed according to the variables found in literature. This makes differences and similarities between the included SFSCs clear and enables a classification among the SFSCs.

The third and final phase of the research comprises the *conclusions* of the research. The aim is to derive a typology of SFSCs' business models based on our classification and empirical results.

1.5 Report overview

As this chapter serves as an introduction to the research, in the following chapters answers are provided to the research questions. Each research question represents a chapter of the research. This research is considered to be an initial attempt to develop a SFSC typology with regard to the Netherlands and hence place and time bound. It finds its start in the beginning of 2012 and empirical data is collected during June and the beginning of July. The analyses and conclusion phase is competed in the end of 2012. For the sake of clarity, the provided results apply to the Netherlands in 2012.

Chapter 2 presents by means of a literature study the theoretical insights required to provide an answer to the first research question. It provides a structural understanding of SFSCs by presenting the theoretical framework in the end. As SFSCs have a common understanding but not a common definition, first different definitions of SFSCs are analysed in order to derive four differentiating characteristics. The literature study continues by focusing on their organizational formats and value creation and value capture processes. This should contribute to the deficiency of business oriented SFSC literature. Also, our theoretical framework should allow us to conceptualize SFSCs through which the scope of the research should become clear. Hence, an operational definition of SFSCs in the Netherlands has been derived in order to examine which cases should be included in the empirical research.

Chapter 3 discusses the methodology of the research and for that reason answers the second research question. As the aim is to collect data on multiple cases at a certain moment in time, a cross-sectional design is applied. The structure and design of the empirical research is provided by the theoretical framework. Since there is no overview of SFSCs in the Netherlands yet, this research adopts a survey strategy. A survey provides an overall picture which is realized by structured interviews. In order to conduct the process of data gathering organized, different SFSC initiatives are broadly categorized by determining which chain participant is the prime initiator. Hence, a distinction is made between suppliers', distributors' and buyers' initiatives. By this categorization the main stakeholders and the role of other chain participants becomes clear, which is useful information for the actual data collection. Data in this report presents the included Dutch SFSCs we were able to find between 12th of June and 9th of July 2012.

Chapter 4 presents the empirical results of the research and answers the third research question. By discussing the results of the constructs comprised by the theoretical framework, insights are provided in the characteristics of Dutch SFSCs. Accordingly, a classification among the SFSCs is made in the conclusion section 4.6 by taking into account differences and similarities between SFSC initiatives.

Chapter 5 discusses the conclusions and is aimed to answer the central research question. Based on the prior results a typology of Dutch SFSCs is provided. The final sections consist of a discussion of the research and recommendations for both managerial purposes and further research.

2 LITERATURE STUDY

This chapter discusses the results of our literature study and provides an answer to the first research question and included sub-questions. The aim is to provide a theoretical framework which is fundamental for our empirical research.

RQ1: Which variables should be included in the theoretical framework for a structural understanding of SFSCs to get insights in their characteristics, organizational formats and business models?

To provide an answer, the first section 2.1 examines different definitions of SFSCs, section 2.2 discusses four differentiating characteristics of SFSCs, section 2.3 focusses on theories related to their organizational structure and section 2.4 focusses on the value creation and appropriation of firms in terms of business models. After all, a review of these relevant theories results in a theoretical framework which is presented in the last section 2.5.

2.1 Defining Short Food Supply Chains (SFSCs)

The concept of short food supply chains is in section 2.1.1 defined according to characteristics of these chains and in section 2.1.2 defined based on their market arrangements.

2.1.1 Based on characteristics of SFSCs

Short food supply chains attempt to – as already highlighted by the first word – shorten the food supply chain from producer to consumer. For the purpose of this part of the research we are interested in answering the question, what actually differentiate a SFSC from other food chains? Hence, this section is implemented to discover the determinants of the differentiating characteristics of SFSCs. In order to investigate this, different definitions provided in literature are selected and reviewed, notable both for their similarities and differences. A few remarks could be made regarding the literature.

First of all, the term SFSC is rarely used in the literature compared with other terms. Most commonly preferred is to focus on '*local food*' followed by notions of alternative food networks and systems (Allen et al., 2003, Feagan, 2007, Hinrichs, 2003, Watts et al., 2005) or what other consider as civic and demographic agriculture (DeLind, 2002, Lyson, 2000). The relevant literature focusses on the attributes of food products (frequently being geographically distinctive) as well as the mechanisms of processing and retailing (local) food, which are in our research considered as SFSCs. Hence, both definitions of local food and SFSCs are investigated presented in Table 1 and Table 2. The aim is not to provide an exhaustive list, but to derive prevalent components of a SFSC and local food.

Surprisingly, the term local food and terms referring to SFSCs are often studied without explicitly defining the concept, taking its meaning more or less for granted. Most of the time they are referred to as qualities which are attributed to a distinctive geographic origin (Kneafsey, 2010). If we review the selected definitions of local food and SFSCs, a lot of overlapping themes are present which affirms the correspondence between the two concepts. The themes used to define local food are not very different from those used in the definitions of SFSCs. Though, the emphasis in definitions of local food is more likely to be on geographical proximity, whereas definitions of SFSCs more rely on social constructions. SFSCs are often considered as networks, relations between trading partners or producer and consumer and even as innovative modes of food provision.

Table 1: Selected definitions of local food found in literature.

Definition of local food	Author
▪ Reducing the **geographical distance** between producers and consumers, but also embracing other **sustainability criteria** that include **health**, **fair trading** relations, **producer profitability**, **environmental benefits**, access and **social inclusivity**, **animal welfare** and **cultural conditions**	*Sustain, UK Alliance for Better Food and Farming (Ilbery and Maye, 2006)*
▪ Refers to 'good food' which constitutes a **dialectical alternative**; food which is **authentic**, derivative of a **place** or person(s), produced with regard to principles of **sustainability**, **naturalness**, **animal welfare** and associated with particular **spaces** (regions, localities and fields where animals graze, vegetables are grown, or materials transformed)	*Sage (2003)*
▪ Food **grown** or **processed locally** and **purchased by restaurants from the local market** or primarily through **local producers**	*Sharma et al., 2009)*
▪ Food produced and consumed by exploiting the raw material and production inputs **within the region**, promoting the **economic development** and **employment** of this particular area. The particular area may be a municipality, province, or economic area	*Finnish Rural Policy Committee '02 in (Forsman and Paananen, 2004)*
▪ Foods which offer a closer **'connection'** with the point of production and an opportunity to **support the local economy**	*Guptil and Wilksons (2003)*
▪ A banner under which people attempt to **counteract** trends of **economic** concentration, **social** disempowerment, and **environmental** degradation in the food and **agricultural landscape**	*Hinrichs (2003)*
▪ Is produced **locally/regionally**, contributes to the local/regional **rural development** strategy, sold to the consumer through the **shortest chain** that is possible (directly or via one intermediary), sold at a **speciality shop** or **open-market** on a **local contract** , but could not be sold to a retail central buying department, targeted at consumers with one or more **specific selling points** such as taste, freshness, high quality, cultural motivation, local tradition, local speciality, animal welfare, environmental value and is distributed as close as possible with a maximum **radius of 30 miles**	*Opinion of the European Union Committee of the Regions on 'Local food systems' (2011)*
▪ Any agricultural food product that is raised, produced, and distributed in the **locality or region** in which the final product is marketed, so that the total distance the product is transported is less than **400 miles from the origin** of the product or the **State** in which the product is produced.	*US - Federal rural development loan program (King et al., 2010)*

Table 2: Selected definitions of SFSCs found in literature.

Definition of a SFSC	Author
▪ Rooted in **particular places**, aim to be **economically viable** for farmers and consumers, use **ecologically sound** production and distribution practises, and **enhance social equity and democracy** for all members of the **community**	*Feenstra (1997)*
▪ Emphasis upon the **type of relationship between the producer and the consumer** in these supply chains, and the role of this relationship in constructing value and meaning, rather than solely the type of product itself	*Marsden et al. (2000)*
▪ Emphasis on 'their capacity to **re-socialise** or **re-spatialise** food, thereby allowing the consumer to make **new value judgments** about the relative desirability of foods on the basis of their own knowledge, experience, or perceived imagery'	*Renting et al. (2004)*
▪ A more **sustainable option**—a means of getting **biodiversity** from farm to plate, of **saving energy** and **reducing food miles**, of providing **social care** and improving **civic responsibility**, and of **retaining economic value** in a local economy	*Ilbery et al. (2005)*
▪ Reduce the **number of intermediaries** and **spatial distance** between producers and consumers and often described as **strategies** to promote **rural development** by **redistributing value** along the food supply chain	*Bloom and Hinrichs (2011)*
▪ **Natural** and **social networks** formed through **common knowledge** and understanding of **particular places**, embedded in their localities	*Kremer and DeLiberty (2011)*
▪ The set of **trading partner relationships** and transactions that delivers a local food product from producers to consumers which conveys information about the product that enables consumers to recognize it as a **local food product** and strives to **establish a bond between the producer and the consumer**, even when separated by intermediary segments in the supply chain	*King et al. (2010)*
▪ Constitution that **redistribute value** through the **network** against the logic of bulk commodity production; that **reconvene `trust'** between food producers and consumers; and that articulate new forms of **political association** and **market governance**	*Whatmore et al. (2003)*
▪ Systems that entail **market relations** in the delivery of food from producer to consumer based on **familiarity** with and commitment to nearby **place**, **community** and **environment**	*Hinrichs (2000)*
▪ New models that engage public concerns about **community**, **social justice**, **health** issues such as **nutrition** and **food safety**, and **environmental sustainability**	*EU – Facilitating Alternative Agro-Food Networks program (2010)*
▪ **Innovative modes of food provisioning** which represent **socially exclusive niches** rather than the future of European rural economy and society	*Goodman (2004)*

Based on these definitions, four prevalent components could be derived. First, the majority of the definitions refer to the *geographical proximity*. Terms as 'rooted in particular places', 're-spatialise food' 'commitment to nearby place', 'geographical distance' are used which emphasise the importance of proximity. The second component refers to the *economic added value*, or in other words the 'producer profitability', 'economic and rural development', or the redistribution of value along the supply chain. Not every definition highlights the economic aspects of these chains, but it is used frequently enough to consider is as an important attribute. Third, many times *social* enhancements are highlighted, for example authors use phrases as' enhance social equity and democracy', 're-socialise food', 'providing social care' or 'improving civic responsibility'. Though, according to Goodman (2004) SFSC could also involve socially exclusive niches (Goodman, 2004). In definitions concerning SFSCs many times is referred to 'connectedness' between producer and consumer and community. So, significance of social attributes is demonstrated widely. Fourth, quite often definitions refer to sustainability or the *environment*. This could include animal welfare, agriculture landscape as well as 'getting biodiversity from farm to plate, saving energy and reducing food miles'.

By reviewing these definitions, the thoughts that the provision of local food or SFSCs is inherently good and brings about different benefits are fundamentally prevailing, but are they? As already mentioned this research project aims not to elaborate deeply on answering this question, though it is necessary to note as these ideas influence the perception of SFSCs in one desired direction. By reviewing the literature, it becomes less remarkable that these ideas are prevalent, since a majority of literature stems from political-economic and social rural development disciplines (Tregear, 2011). According to these perspectives, initiatives are many times conceptualized as counter movements to threatening forces of global capitalism or considered as potential solutions for improving the situation in lagging rural areas. Furthermore, literature mainly stems from the United States of America and Western Europe. A difference between these two literature fields with regard to the perception of SFSCs is notable. In American literature, they are rather seen as potentials to resist the mainstream agribusinesses and tend to be used in a more political context (Holloway et al., 2007). In contrast, European SFSC literature concentrates its definitional discussions more on rural economy, food safety issues and society (Goodman, 2004, Sonnino and Marsden, 2006).

Next to all advocates, others do show their cautions and refer for example to 'the local trap' (Born and Purcell, 2006); the tendency of food activists and researchers to prefer local a priori to larger scales. Also Goodman (2004) is doubtful about the positive aspects of SFSCs as already highlighted in Table 2. Tregear (2011) critically reflects on the connotations of SFSCs and recognizes a tendency to conflate characteristics of SFSCs with specific desirable outcomes or certain food properties. She argues that desirable outcomes such as social justice or economic viability are not inherent to food systems operating on a local scale. Accordingly, the outcome of SFSCs depends on the orientation of the involved actors. The same applies to the opportunities for SFSCs to offer healthier and more nutritious foods. There is no a priori reason to expect it to be related to the spatial or structural characteristics of these food systems (Born and Purcell, 2006). These insights are very useful to put SFSCs into perspective.

To conclude, the literature concerning SFSCs is inherently associated with local food. Due to small number of research areas that contribute to the literature, many authors consider SFSCs opening up potential for rural development. They are claimed to form a countermovement to avoid the threatening forces of global industrialized food chains. A review of selected definitions shows that the themes used to define both local food and SFSCs do not differ much and four prevailing components could be derived. Accordingly, SFSCs refer to a specific geographic area, which might contain both producers and consumers, added value for producers or local economy, bring up connectedness between producers and

consumer and community and lastly could imply environmental benefits. Hence, the following distinguishing characteristics are taken in turn; 1) their geographic proximity, 2) economic viability, 3) social interaction and lastly their 4) environmental sustainability, which are all discussed in the section 2.2.

2.1.2 Based on market arrangements

Next to definitions of SFSCs based on characteristics, also definitions based on market arrangements are well-recognized (Martinez et al., 2010). Within the great diversity, a broad distinction could be made between two types of market arrangements concerning SFSCs.

1) Direct-to-consumer SFSCs
2) Intermediate SFSCs

SFSCs including direct to consumer arrangements comprises food chain channels, such as farmers market, road stands and on-farm shops; supply chains in which the producer of the food products meets the consumer directly. Intermediate SFSCs on the other hand, involves intermediaries to supply consumers and bypasses the direct-to consumer market as well as the undifferentiated commodity markets. They could include new formed institutions such as producer's cooperatives or consumer buying clubs, but also established retailers that have somehow become involved in selling regionally based food. This could be for the reason to respond to consumer demands, to create competitive advantage and/or to provide local producers with retail space to sell their goods (Ilbery and Maye, 2006).

This distinction is used throughout the paper, to indicate whether the supply of food is direct of intermediate. The paper now turns to discuss the four different characteristic of SFSCs.

2.2 Four characteristics of SFSCs

Based on found definitions represented in Table 1 and Table 2, four prevalent characteristics of SFSCs are derived. Accordingly, section 2.2.1 examines their geographical proximity, section 2.2.2 discusses the economic viability, section 2.2.3 focusses on the social interaction between involved parties and lastly, section 2.2.4 discusses the environmental sustainability.

2.2.1 Geographical proximity

A key characteristic claimed for SFSCs is according to Tregear (2011) 'their anchoring in a particular locale'. As already mentioned in the introduction, for many the geographic proximity of SFSCs, being connected to a specific place or region, is a leading characteristic. For that reason terms as local food are used intertwined with SFSCs. SFSCs could be related to a particular geographical area using two approaches.

Using the first approach, the emphasis is on the prescribed geographic area in which food is produced, processed and retailed (Morris and Buller, 2003).This geographical area could be designated by for instance a county or a radius, but in most cases these areas are less administrative. For example, the direct sales to consumers at a farm, better known as farm-gate selling, box schemes, farmer markets are best known examples. In these types of SFSCs not a fixed administrative area is designated, though the geographical area in which food is produced and retailed is limited and bounded to a particular region.

According to the second approach, the emphasis is only on the geographical production area of food and not the distribution area. The food products are produced in a geographical area, but may not necessarily be processed or retailed in that region. This approach allows it to supply food products beyond a

particular production area, for instance national or even international. In literature these foods are also considered as locality foods or region speciality foods (Ilbery and Maye, 2005). These food products emphasize the importance of the production area and do often make use of territorially based qualification or certification scheme (Tregear et al., 2007). For instance the famous *Parmaham* from Italy qualified by the PDO or GDI[1] system from Europe or so called '*Erkende Streekproducten'* in the Netherlands which brought about products as *Zeeuwse Vleghel or Limburgse Vlaai.*

Both approaches involve delimitation of the geographical distribution area or only the production area of food production. In most cases this geographical delimitation is indicated by so called physical boundaries, i.e. administrative boundaries (e.g. counties and regions) or a radius from production place. Though, one could question the limits of this physical geographical proximity. There is no clear agreement on the geographical boundaries of those food products. In some cases a radius from the production place is selected or state (administrative) boundaries (national, a county, specific region) which vary heavily. For example, a radius of 645km suggested by the United States Department of Agriculture (USDA) (King et al., 2010). In the United Kingdom it is limited to 80 km set by the National Association of Farmers' Markets and 160 km is set by the London Association of Farmers' Markets[2] (Ilbery and Maye, 2005). While, in the Netherlands it is suggested to limit the distribution radius of food products to 50 kilometres (Platform-Aarde-Boer-Consument, 2012). The relevance of a geographical area in relation to food is thus variable and will vary according economical, physical, political and social factors (Kneafsey, 2010), i.e. context bounded. For that reason, others suggest to map these spatial relations between producers and consumers more socially or environmentally (Allen, 2010). So far, the geographical proximity refers to a geographical area whether or not determined by physical boundaries (i.e. a radius or administrative boundaries).

In sum, the geographical proximity of SFSCs refers to a geographical area in which food is produced and/or distributed. Since this research focuses on SFSCs in the Netherlands, the geographical area is limited to the Dutch borders.

2.2.2 Economic viability

Another characteristic claimed for SFSCs is their orientation towards economic viability of involved actors (Tregear, 2011). According to Marsden et al. (2000) SFSCs hold potential to break out the industrialized commodity chain in which a decreasing proportion of total value is captured by primary producers. So, the importance of economic viability mainly holds for primary producers, as they want to avoid the so called price-squeeze and decreasing margins (Renting et al., 2003). Hence, the economic viability of SFSCs is assessed at farm level, followed by the impact on a wider scale; the community level.

1) <u>Firm level</u>

Farmers and other chain parties could benefit via increased product margins through diversification activities and entrepreneurship (Tregear, 2011 and Renting, 2003). In SFSCs the number of intermediaries is likely to be reduced and/or producers could receive a price premium. In the latter case, consumers should consider the food product as different and perceive the added value. According to the case studies in King et al. (2010) producers receive a greater share of retail prices in SFSCs than they do in mainstream chains. Most producers using direct to consumer channels set their prices which are not linked to commodity market prices and reflect the actual costs and local supply and demand conditions of the product (King et al., 2010). According to a report of the Minnesota Institute of Sustainable Agriculture

[1] PDO (Protected Designations of Origin) and PGI (Protected Geographical Indications) are European qualification schemes of food products that represents special characteristics linked to territory (Tregear, 2007)
[2] Originally these numbers are in miles, respectively 400, 50 and 100 miles

(MISA) (2007), this is especially true for small to midsized scale farmers[3] who do not have the quantities preferred by the commodity market. Though, the degree in which SFSCs are economic viable for the producers could depend on many variables and varies heavily. By a review of literature variables are found which tend to correspond to the degree in which SFSCs contribute to the total income of a farm. Accordingly, farm size, location of the farm, engagement in other entrepreneurial activities and type of market arrangement is discussed below as they could influence the economic viability of SFSCs.

Farm size

As mentioned before especially small and midsized farms engage in SFSC practises. But how does farm size relate to SFSCs sales? Research from the USA (Low and Vogel, 2011), from which the results are represented in Table 3, points out that small farms reporting SFSC sales with an average of $7.800. For medium-sized farms the average turnover reaches up to $70.000 and up to $770.000 for large farms. The SFSC sales per farm are much higher in case of large farms compared to small farms. Research from the Netherlands concerned with farm shops, confirmed these results too. Table 4 represents these results and they suggest that small farms generate smaller sales than large farms do: respectively €30,000 versus €200,000.

Also it is interesting to examine the extent to which SFSC's revenues contribute to the total revenues of a firm. This varies from 69% for small farms to 58% for large farms, hence it could be stated that in general small farms are more dependent on SFSC sales. It should be noticed that the overall dependency is rather high (61%). Compared to the Netherlands, farms are less depended on SFSC sales; only 12% of farms engaging in SFSCs achieve more than 50% of their income via SFSC sales.

Table 3: Average gross annual SFSC farm revenues USA in 2008 (Low and Vogel, 2011).

Local food sales farms	# Farms	Revenues per farm		*Total (in $ bil.)*
		Average	*% of total sales*	
Small farm (< $50.000)	86,726	$7.800	69%	$533 (11.1%)
Moderate farm ($50.000 - $250.000)	15,202	$70.000	67%	$918 (19.1%)
Large farm (>$250.000)	5,301	$770.000	58%	$3355 (69.8%)
TOTAL	**107.229**			**$4.806**

Table 4: Farm revenues of Dutch on-farm shops in 2009 (Roest et al., 2010).

Distribution channel	# Farms	Revenues per farm	Total (in € mil.)
Small farm (< €60.000)	770	€ 30,000	€ 23.10 (24.8%)
Moderate farm (€60.000 - €140.000)	560	€ 100,000	€ 56.00 (60%)
Large farm (>€140.000)	70	€ 200,000	€ 14.00 (15%)
TOTAL	**1400**		**€ 93.10**

Location

Next to farm size, the location of the farm could also affect the economic viability of their SFSCs. Research shows that sales via direct to consumer channels were highest in and near American urban areas (Low and Vogel, 2011). It is supposed that factors such as availability of labour, land and infrastructure as well as regional characteristics such as climate, water availability and access to densely populated markets play a role. Hence, areas close to urban areas hold more potential.

Engagement in other entrepreneurial activities

Next to engagement in SFSCs multifunctional agriculture comprises also other activities such as tourism, education or social insertion programmes. Integrating other on farm entrepreneurial activities with direct-

[3] Small farms receive less than $50,000 in gross annual sales, medium sized farms between $50.000-$250.000 and large farms more than $250.000

sales ventures appears to capture synergies. To illustrate, research from the USA points out that among SFSCs farms 68% only engaged in SFSCs and earned $6.844 per farm. The sales of the SFSCs of farms engaged in three additional on farm entrepreneurial activities (2%), averages up to $28.651 per farm (Martinez et al., 2010). Hence, there seems to be a relation between the amount of additional farm activities and the SFSC sales. Research from the Netherlands shows us that on average the majority of multifunctional farms integrate three different activities. Especially involvement in regional speciality foods and education seems to create synergies for other activities (Oostindie et al., 2011).

The channel (market arrangement)

SFSCs concern different market channels. These have different outcomes for the economic viability of farms, since the costs, risks and volumes brought about by the market arrangements differ. Regarding the costs, producers concern most about the labour and marketing cost (advertising, fees, distributing etc.). According to an American research, farmer markets are seen as most risky taking into account the risk of low volumes, and high labour and marketing costs. Though, also SFSCs using distributor channels are considered as costly as qualified labour is required to deliver the food products (LeRoux et al., 2010). The revenues which could be achieved differ among channels depending on the amount of products which could be sold. Table 5 provides an overview of the average revenues of different market channels in the Netherlands. These differ heavily, the revenues generated by a road stand are the lowest and those from a web shop the highest. However, the cost component should also be included. A simple road stand is less costly to integrate than a web shop. In case costs are included King et al. (2010) shows that producer net revenue per unit in SFSCs could ranges from about equal to more than seven times compared to main-stream chains, dependent on the product and structure of the supply chain.

Which channel is selected seems to relate to the farm size. Based on the results of Low and Vogel (2011), small farms tend to rely exclusively on direct-to-consumer marketing channels, such as famers' markets and roadside stands. Large farms seems not to rely exclusively on one type of market channel, they are likely to use direct to consumer channels exclusively, intermediated channels exclusively, or a mixture of the two (Low and Vogel, 2011)

Table 5: Average farm SFSC revenues of different SFSC channels in the Netherlands in 2009 (Roest et al., 2011) and 2011* (Hendriks-Goossens et al., 2012)

Distribution channel	# Farms		Revenues per farm (in €)		Total (in € mil.)	
	2009	2011*	2009	2011*	2009	2011*
▪ Road stand	430	750	€ 4.000	€ 4.000	€ 1.70	€ 3
▪ Farmer market	100	100	€ 85.500	€ 50.000	€ 8.65	€ 5
▪ On farm shop	1400	1400	€66.500	€70.000	€ 93.10	€98
▪ Web shop	120	500	€ 200.000	€ 50.000	€ 24.00	€ 25
▪ Out of home services / local retail	200	800	€ 20.000	€ 20.000	€ 4.00	€ 16
TOTAL	**2.250**	**3.300**	**-**	**-**	**€ 131.6**	**€ 147**

*2011 is an estimation.

To conclude, the economic viability of SFSCs regarding farms differs among cases. The farm size, location of the farm, engagement in other entrepreneurial activities and the used market arrangements determine the extent to which SFSCs contribute to the total revenues of farms. The revenues which could be achieved depend on the price premium of the product, volumes and costs which differ per SFSC. Research on the economic viability of SFSCs has mainly focussed on farmers, though other parties could also be part of SFSCs. Research focussed on these latter partners is less available. Some authors argue that from an economic point of view integrating SFSCs in for instance a retailer's or distributor's business provides less added value compared to farms (Forsman and Paananen, 2004, Abatekassa and Peterson, 2011). Empirical research has to show to what extent SFSCs are contributing to the total revenues of businesses.

2) Community level

The previous section discusses the economic viability at farm level, but it is also interesting to see what economic contribution involves on a wider scale. Derived from Table 3 and Table 5 SFSCs bring about $4800 mil. in the USA (2008) (2.8% of the GDP of agriculture) and €147 mil. in the Netherlands (2011) (1.1% of GDP of agriculture) (The World Bank, 2011). Hence, the contribution of SFSCs to the total agricultural GDP is in both countries rather small. However, if we have a look at the growth rate of SFSC sales, Dutch SFSC revenues increased with almost 11% between 2010 and 2011 (Roest and Schoorlemmer, 2010). And American research points out that $4.8 billion is four times higher than their prior estimation. Although, the SFSC revenues account for a small part of total agriculture revenues, the growth rate is rather high and indicates a promising prospect.

Next to the contribution of SFSC to the total agriculture revenues, the wider community could also benefit via multiplier effects of SFSCs such as employment and income opportunities (Tregear, 2011). For example Pretty (2011) argues, based on case studies from Devon, that a variety of local food initiatives has led to a net increase of jobs and also concludes that on average each farmer involved in the local food chains employs more workers. In addition, King et al. (2010) conclude that almost all wages and business income generated by SFSCs (direct and intermediated) stays within their respective local areas. Furthermore, another study found that every dollar spend on a local organic box scheme generate $2.65 for the local economy (radius of 24 kilometres from the organic farm), compared with a $1.40 derived from a supermarket (Boyde, 2001).

However, it is difficult to measure the economic impact of SFSCs on a wider scale, especially when comparing it with mainstream food chains. As King et al. (2010) rightly state, mainstream chains also provide jobs and income opportunities. In addition, sometimes it is argued that SFSCs do not necessarily offer positive multiplier effects for wider regional economies (Tregear, 2011). It should be taken into account that gains of SFSCs probably lead to losses elsewhere (e.g. consumer expenditures in local grocery stores). Also DuPuis and Goodman (2005) express caution about the widespread advocacy of SFSCS for wider economic development. According to them it could result in unproductive interregional competition.

Particular qualification schemes (e.g. PDO), which link specific characteristics of food products to territory, may also contribute to the development of certain communities. Tregear et al. (2007) made a distinction between a production network and an extended territorial strategy. The first one involves close relationships between suppliers, producers and processers resulting in a producer network. This provides increased employment opportunities, revenues from effective supply chain management and marketing of the regional product which will in turn contribute to the community (Tregear et al., 2007). In the second regional specialty foods form the base of a wide range of other initiatives and hence could be considered as an extended territorial strategy. The identities and associations of these food products are seen as the value creators, rather than the single food product. For instance fairs, markets, festivals, educational initiatives or community events are brought about. This distinction teaches us that the contribution of regional food to communities' or regional economy also depends on the strategy developed by regional authorities (i.e. the degree of exploitation).

To conclude, the economic viability of SFSCs is an important driver for many involved parties. On the producer side, especially farmers could benefit and avoid the so called price-squeeze. In the Netherlands, over 3300 farms engage in SFSC practises in 2011. The extent to which SFSCs contribute to the total revenues of a farm depends on several factors such the type of market arrangement. Revenues could vary between €4.000 for a road stand and €200.000 for an on farm shop or web shop. Also farm size seems to be determinant; large farms seem to gain higher revenues than small farms ($770.000 versus $7.800). The

location of the farm seems to matter as well; farms located next to an urban area tend to gain more revenues than rural located farms. Lastly, the engagement in other entrepreneurial activities appears to be relevant as it could leverage the total SFSC sales. To examine SFSC generated revenues, their volumes, profit margins and contribution to total revenues should be taken into account. SFSCs could also impact the wider economy via multiplier effects such as employment and income opportunities. However, it is very time consuming and difficult to measure these effects and hence beyond the scope of this research.

2.2.3 Social interaction

Next to the geographical proximity and orientation towards economic viability, there are also claims regarding the social characteristics of SFSCs (Tregear, 2011). While reviewing the definitions of SFSCs in section 2.1.1, their ambition to reconfigure relations between producers and consumers take a central place. On a wider scale SFSCs may be affiliated to a network and committed to a closer tied community, (Goodman, 2004, Allen, 2010) and bring involved actors into closer proximity and mutual understanding (Marsden, 2000). Hence, the social interaction component of SFSCs is investigated using two dimensions; the producer-consumer relationship and community network dimension.

1) Producer – consumer relationship

A characteristic widely considered as differentiating compared to industrialized chains concerns the connections and associations of food consumption related to the production process and place of food products (Renting et al., 2003). How these connections are made and information about the place of production is communicated differs among cases. These differences are substantiated to the degree of connection between producer and consumers. Accordingly, Marsden et al. (2000) distinguishes the following types of producer-consumer relationship.

- Face to face

Within this relationship the producer and consumer meet each other directly, i.e. face to face. The producer knows who the buyers are and conversely. This type of relationship is also recognized as direct marketing. For example, farm gate selling, road stands or farmer markets make use of this direct marketing. Direct marketing practises own opportunities to maintain bonds of local identity and solidarity between producers and consumers (Lyson et al., 1995). This is in line with the results of Hunt (2007), which indicate that the most important motivation to sell at a farmers market is to have a direct relationship with customers. Accordingly, Ilbery and Maye (2005) describe this relationship in terms of acknowledgement, respect and friendship. In general, direct market SFSCs are considered as the ones most geographical committed and inform consumers with information about where and by whom the products are produced. Though, this is not self-evident and the degree to which information is communicated and the strength of the relationship between producers and consumers varies across cases (King et al., 2010). Using the words of Jarosz (2008) 'just because farmers and consumers can meet face to face does not necessarily personalize these relationships in the support of a progressive vision of the moral and social significance attached to knowing where food comes from'.

- Proximate

In contrast to the prior interaction, proximate relations maintain not a direct relationship between producers and consumers. They are connected by intermediary actors which should guarantee product authenticity. A good example is a distributor which collects products from the region to supply customers by means of box schemes. But also specialized retailers or specific restaurants could entail relations of proximity. Proximate relations are based either at a spatial nature or a cultural nature (Renting et al., 2003). In the first case, products are produced and distributed in the specific region of place of production and consumers are made aware of the 'local' nature of the product at the point of retail (Marsden et al.,

2000). For example, the use of local food products in a particular restaurant is part of this proximate interaction. Also, SFSCs could maintain cultural proximity relations, which refer to the supply of regional specialities to emigrants. In both cases products embody the natural and/or cultural features of a local area (Ilbery and Maye, 2006).

- Extended

Also, a connection between producer and consumer in SFSCs could be established by so called extended relations. This is the case if information about the place of production and producers is translated to consumers who are outside of the region of production and who may have no personal experience of that region (Marsden, 2000). These regional products could be distributed within national borders, but also international. One could question the 'short' element, though it is the fact that food products reach the consumer embedded with valuable information about the production place (and process) rather than the distribution distance. Accordingly, PDO certificated products as Parmaham could be considered as an extended SFSCs, but also Fair Trade products (emphasizing on the value of people involved and production method). Renting et al. (2003) point out, if the food product information is communicated well, products are differentiated from the more commodity ones and a price premium could be commanded if consumers perceive this as added value.

This categorization teaches us different interaction possibilities between consumer and producer within SFSCs. In these interactions the identity preservation from farm to market is very important. It is considered as the driver for buyer and consumer demand as it ultimately bonds consumer and producer (USDA, 2012). In a SFSC characterized by a face to face interaction, the direct interaction between producer and consumer generates the mean to communicate and preserve territory and identity. In proximate relationships this direct communication could be replaced by references of producers, items as leaflets or newsletters and in extended interactions, communication will be done by means of labels and certificates. These forms of communication other than direct ones could generate the same kind of functioning, based on an equivalent re-framing of the transaction. The proximity itself is what matters (Holloway et al., 2007, Lamine, 2005).

To conclude, SFSCs use varying forms of territory and identity preservation to differentiate their products which are largely dependent on their level of interaction between producers and consumers. The face to face interaction emphasis the direct interaction between one producer and consumer while extended interaction aims to interact via informative labels and certificates which could involve several producers, with proximate interaction in between. For the purpose of this research, the proximate interaction is limited to SFSCs based on spatial nature and SFSCs using extended interaction are limited to products produced and distributed within the Netherlands.

2) Community network

From a social perspective, SFSCs could also involve social interaction within communities, bringing consumers and producers in closer proximity together in a network (Feagan, 2007). For example Wittman et al. (2012) refers to the social economy and an 'economic activity with a social remit'. Terms which reflect that SFSCs enhance certain social values next to their strife for economic value. Engagement in society accompanied by enhancing a reputation could be an important driver of parties to involve in SFSCs. According to King et al. (2010), SFSCs tend to place more emphasis on civic engagement compared to mainstream food chains. Especially more direct marketing practices are regarded as a contribution to community development. Adherents use terms as social cohesion and equity to describe the social contribution brought about by SFSCs. In particular, farmer's markets, Community Supported Agriculture (CSA), and community gardens are discussed as high potentials as they foster collaboration among nearby residents, have a focus on community, reciprocity and in some cases education (Schukoske, 2000,

Smithers et al., 2008). Since SFSCs are linked to community relations, whether or not contributing to preferred social outcomes, many authors prefer to refer to networks instead of chains. Hence, the focus in this research project is on the social interaction between actors in such a network.

Social interaction and socio-economic status in a network is also acknowledged as social capital (Grootaert and Bastelaer, 2002). One of the pioneers of this concept is Jane Jacobs (1961) and she defines this phenomenon as follows: 'Features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit'. Social capital is formed by social interactions and is constituted by trust, reciprocity, norms, values and sanction and networks and (Lyon, 2000, Pretty and Ward, 2001). We will detail each of them briefly.

- *Trust*

Trust refers to confidence, knowledge of a person's ability, belief and faith despite other uncertainties and risks (Lyon, 2000). Trust is perhaps the most important component of social capital (Slangen et al., 2008) and many authors recognize trust as an important mechanism in buyer-seller relationships (O'Reilly et al., 2003). The level of trust generated by close relationships is significant higher compared with (commercial) relationships who are socially detached. Trust saves money and time (Pretty and Ward, 2001) however, trust can also enhance the opportunity for cheating in cases where information on the other party is a key resource (Granovetter (1985) in Lyon, 2000).

- *Reciprocity*

Reciprocity could exist among businesses as well as consumers in which the 'if-than' construction takes a central place. Reciprocity is seen as an important part of building relationships and reputations (Lyon, 2000). It contributes to the development of long-term obligations between actors to achieve positive outcomes. This is especially the case in transaction where reciprocity is not immediate and parties have to rely on trust (Sumelius and Vesala, 2005).

- *Norms, rules and sanctions*

Norms are drawn on by actors when making decisions on whether to trust an individual and expectations that others will be trustworthy (Lyon, 2000, Sumelius and Vesala, 2005). They give individuals the confidence to invest in collective or group activities, knowing that others will do so too. Common norms, rules and sanctions are the standards of behaviour that place group interests above those of individuals. It is recognized that people tend to work best with those people and organizations who share the same values (Kay, 2006). Mutually-agreed sanctions ensure that those who break the rules know they will be punished. According to Grootaert and Bastelaer (2002) the largest contribution to social capital occurs 'where beliefs in participation are reinforced by the existence of rules that are clear and fairly implemented'.

- *Networks and connectedness*

Another aspect of social capital is being connected and part of a (social) network (Pretty and Ward, 2001). People and organizations are tied together through the networks they belong to. These networks can be professional or social in nature, shaped by political and historical background to the relations of gender, ethnicity and class (Lyon, 2000). To contribute to social development a certain degree of engagement is required within a network; values should be shared and respect honesty (Sumelius and Vesala, 2005). While it is accepted that networks are important for the creation of social capital, some warn for a romanticized view. Power struggles can exist and might influence how resources are controlled (Lyon, 2000).

Trust and reciprocity can build up connection and interaction between actors, and common norms and values create solidarity between actors which will bring them together in a network. However,

engagement in networks or community building efforts can have different characteristics and functions (Kay, 2006). A distinction is made between two functions of social capital originally proposed by Putnam '02 (Rydin and Holman, 2004). The first one refers to bonding or integration; bringing a group with similar values closer together. The second one refers to bridging; connecting the members of a community with external members and organizations (Glowacki-Dudka et al., 2012). Using these two types of social capital distinguishes organizations that are primarily concerned with building strong links within a community or group and those that are concerned to build links between communities or groups of actors (Rydin and Holman, 2004). So, community building efforts of involved SFSC actors could build upon bonding actors and/or bridging actors from outside the network (Kay, 2006). Both types are important for a business, Glowacki-Dudka (20120) argues that in case small farmers do have social capital which enable them to have a sufficient level of sales, it is still important to create bridging social capital to achieve a larger footprint and income guarantee (Glowacki-Dudka et al., 2012).

To create social capital (be engaged in a community) SFSC farms could for example run community courses, host social events or facilitate communal food growing (Venn et al., 2006). Other SFSC firms could show their engagement by for instance supporting local initiatives, donation programmes or involvement in non-governmental organizations (King et al., 2010). From a social perspective, we wonder if firms involved in SFSC initiatives engage in those kinds of community building activities to strengthen the current network or to attract others outside the network.

While elaborating on the ability of SFSCs to create social capital and engagement in society, many associate the developments of SFSCs positively with social objectives, such as social cohesion, justice or equity. However, Tregear (2011) critically argues that there is no a priori reason why these result in less desirable qualities such as apprehension, manipulation, malfeasance or exploitation. The supply of regionally based foods can become simply a premium market for a wealthy clientele, rather than a way to democratize the economy (Guptill and Wilkins, 2002). The same holds for the creation of social capital of certain SFSCs, committed parties could have strong internally bonds but negative bonds towards others communities which greatly diminish the ability to bridge and flourish (Glowacki-Dudka et al., 2012). For these reasons, Born and Purcell (2006) consider a SFSC rather as a strategy than a goal on itself. Therefore SFSCs could contribute to for example social justice, cohesion or equity, depending on the agenda derived from the strategy. It is not the SFSC on its own.

To conclude, from a social perspective the interaction between consumers and SFSC firms could be assessed on a producer-consumer level and community-network level. Using the perspective of producer and consumer interaction, the territory and identify preservation of food products is very important to differentiate the involved food products. Concerning SFSCs, producer and consumer could interact in different ways (i.e. face to face, proximate and extended) depending on the level of spatial extension SFSCs. From a community network level, the research focusses on the engagement in the society of involved SFSC parties. By using the concept of social capital, community building efforts of involved parties could contribute to the SFSCs businesses. These attempts could strengthen and/or widen the community network or in other words the customer base.

2.2.4 Environmental sustainability

The fourth characteristic of SFSCs is their contribution towards environmental sustainability. Claims regarding reduced food miles, lower carbon emissions and sustainable production methods are made (Pirog and Benjamin, 2003, Pretty et al., 2005, Born and Purcell, 2006). The association of SFSCs with environmental sustainability is also maintained by public agencies. For example, the Council for the Protection of Rural England argues that local food must be produced in an environmentally beneficial

manner (Ilbery and Maye, 2005) and also the Dutch platform Aarde-Boer-Consument (2012) includes environmental sustainably in their regional food production guidelines. As a result different authors tried to examine the environmental impacts of SFSCs, most of them refer the concept of food miles and carbon emission.

Before discussing these studies, it is necessary to mention that one of the main reasons for consumer to buy 'local' foods are the perceived environmental benefits, whether or not grounded (Adams and Salois, 2010, Pearson et al., 2011). They consider local food as environmental sustainable as the distance travelled is not so far compared to mainstream ones and enhanced environmental sustainable modes of production. Their argument lies within the food miles, assuming greater food miles result in higher levels of greenhouse gas emissions for food (Edwards-Jones et al., 2008). But, is this actually true?

The case studies in King et al. (2010) show a reduced amount of food miles in SFSCs compared to the mainstream cases. Also Jones (2002) sees in his results a clear trend; the environmental efficiency of fresh apple sourcing, distribution, and marketing increases as the distance between the orchard and the consumer is reduced. Distance is clearly a factor that determines energy use, however Coley et al. (2009) argue that the concept of food miles is not necessarily valuable on its own, but the carbon emission per unit of produce over the transport chain matters.

If we take carbon emission per unit into account, local food does not always perform better. Despite substantially lower food miles, direct markets have higher fuel use per unit than the corresponding mainstream chains. The effect of the short distances in many cases counteracts the low loading capacity (Wallgren, 2006). Hence, the fuel use per unit of product varies across locations and products depending on load sizes and product aggregation. Especially SFSCs which do not include direct supply, balances load sizes, product aggregation and food miles efficiently in terms of carbon emission (King et al., 2010). Next to distance and load sizes Saunders and Hayes (2007) point out the importance of transport mode regarding CO_2 emissions. Food products transported per plain show significant higher emissions compared with other transport modes. So the transportation fuel use per unit is more closely related to supply chain structure and size rather than the distance food products travel (King et al., 2010).

However, transport is not the only part of the entire food chain (Saunders and Hayes, 2007, Edwards-Jones, 2010). To solely use food miles and fuel use per unit as indicators the entire food supply chain is narrowly defined. Other parts of the food system are also responsible for producing greenhouse gases and without a further analysis the transport element is considered as the dominator in terms of greenhouse gas production (Wynen and Vanzetti, 2009, Edwards-Jones, 2010). In this case, Lifecycle assessments (LCA) could help in which the environmental impacts of other factors are taken into account, as farm inputs (e.g. water, pesticide), farm production and processing (e.g. fuel, electricity, oil), distribution (e.g. storage, transportation), consumption (e.g. transportation, preparation) and disposal (e.g. recycle and waste) (Desrochers and Hiroko, 2008).

Given the shortage of published studies which analyse emissions from across the entire food chain, it is currently impossible to state categorically if local food systems emit fewer greenhouse gasses than non-local food systems (Edwards-Jones et al., 2008). Three important issues contribute to this. First, it is the question whether or not transport is the main indicator for emissions during in the entire food supply chain. Certain studies show irrelevance of the travel distance as other factors account for a larger share of energy use and gas emission (e.g. production, processing, household preparation). For example, an USA based study found that transport only counts for 11% of the total emissions and production up to 83% (Weber and Matthews, 2008). Secondly, there is inherent variation at the farm level, within a country and between seasons. This leads to different levels of environmental impact even for the same product. In

case of fresh (perishable) products, the relative benefits of consuming local produced compared to import of the food products vary with the season as a result of the required energy for storage. Third, more fundamentally, are the different definitions of local food and a SFSC used. Local food can be seen as food produced within the EU, a country or a certain region and could be compared with food which is produced outside these districts. The same applies for SFSCs which could be considered as only direct marketing practises, but also allow intermediaries. Due to this lack of a clear definition it is difficult to decide whether or not SFSCs and in turn local food, enhance more environmental sustainable practises.

To return to the question concerning the ability of SFSCs to reduce food miles, it is difficult to state whether or not SFSCs are more environmentally sustainable. Literature studies actually show that food miles within direct marketing chains are less compared to mainstream ones. However, the distance tells us not everything; the fuel use per food product matters. Many times, the low loading capacity of the vehicles counteracts the effect of the short distances in SFSCs. Furthermore, also other factors not related to transport contribute to greenhouse gas emission and have an impact on the environment. Hence, it is recommended to use more accurate tools to determine the relative effectiveness of different concepts of local food, given the inaccuracy of measuring sustainability with a single distance. However, given the diversity and difficulty in measuring the actual environmental impact, the environmental sustainability of SFSCs is limited to the concept of food miles and the mode of production.

2.2.5 Conclusion

To investigate what a SFSC involves, this part of the literature study focusses on differentiating characteristics of SFSCs. After a review of several definitions of local food and terms related to a SFSC, four prevalent disciplines are derived. Accordingly, SFSCs refer to a specific geographic area, which might contain producers and consumers, added value for producers or local economy, connectedness between producers and consumer and community and lastly it could enhance environmental sustainability. To prevent us from an a priori overvaluation and conflation with desired outcomes, a distinction is made between variables that characterize a SFSC and variables that refer to the performance of SFSCs. Figure 2 shows the four disciplines and corresponding variables which are included in our research.

From the geographical perspective, SFSCs could be characterised by their geographical proximity of food provision (Section 2.2.1). This could involve a geographical area in which food products are produced as well as distributed or an emphasis on the production area, in case of regional speciality foods. From the economic perspective, the focus in this research will be on the economic viability of involved firms (Section 2.2.2). Higher profit margins as a result of a reduced amount of intermediaries and in some cases a price premium could be important drivers for farmers to engage in SFSCs. To investigate to what extent SFSC contribute to total revenues, their volume and share of total revenues is taken into account.

Derived from the social perspective, SFSCs are characterised by their orientation on the producer consumer interaction based on territory and identify. Three different types of producer-consumer interaction could be distinguished, which is face-to-face interaction, proximate interaction or extended interaction. On a wider scale, SFSCs could be characteristic for their engagement in society and fostering of social capital of a firm. The creation of social capital (in which SFSCs and community building activities could contribute) could be bonding or bridging people and organizations. This means SFSC organizations could engage in activities which aim to strengthen the current network or to attract others outside the network (customer base) (Section 2.2.3).

Lastly, from the environmental perspective, SFSCs are often considered and perceived as environmental sustainable, as they involve less emission and enhance sustainable production practices. Literature shows

varied results and hence the mode of production is included to find out whether or not SFSCs in the Netherlands enhance sustainable production modes. Given the diversity and difficulty in measuring the actual total environmental impact, the variable of food miles is used to investigate whether SFSCs attempt to reduce the food miles (Section 2.2.4).

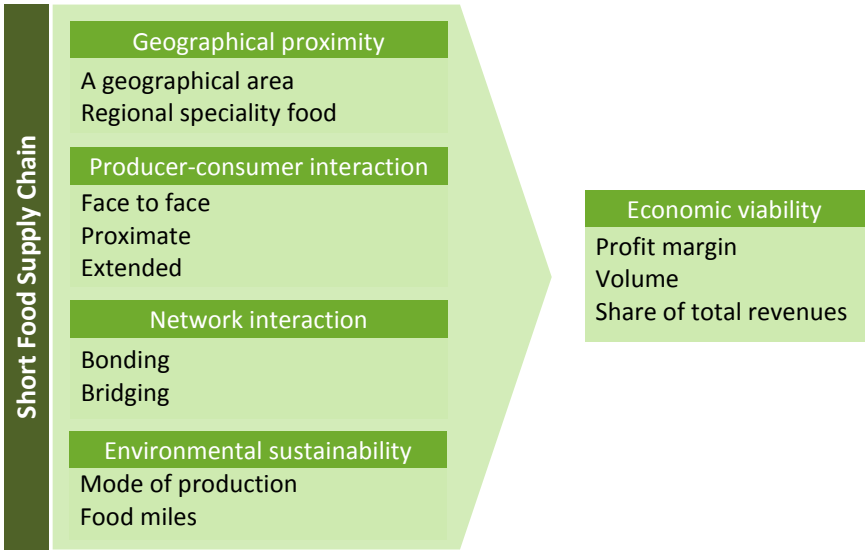


Figure 2: Summary of differentiating characteristics of SFSCs.

All these variables are distinctive for SFSCs and considered as the different constructs of SFSCs. Empirical research has to show whether these variables apply to Dutch SFSCs. Having identified the distinguishing characteristics of a SFSC, the paper now turns to the theories related to the organizational structure of SFSCs and the value creation and appropriation processes.

2.3 Organizational structures of SFSCs

A great variety among the organization of SFSCs exists. As already discussed before, a broad distinction could be made between two types of SFSCs (section 2.1.2). On the one hand, the direct to consumer SFSCs in which food is distributed from one producer to a consumer and on the other the intermediate SFSCs which include more parties to supply food. The urge of using other distribution channels and aggregate products to fulfil consumer demand is widely recognized and lead to more complex organizational structures. Hence, insights from supply chain management (SCM) and transaction cost economics (TCE) are used to provide a better understanding of the organization of SFSCs.

Theories from a supply chain managerial perspective are used to provide insights in the functioning of supply chains as a whole. TCE is used as the theories focus on organizational structure by using transactions between (chain) parties as the unit of analysis. It approaches and rationalizes the organisational structure mainly from a dyadic perspective rather than a supply chain perspective. By combing these two fields of literature the organisational structure of transactions between firms as well as at chain level is incorporated.

Literature concerning the organization of SFSCs is less prevalent, however the importance of working together to make the supply of local food a success reveals. Hence, the key element for SFSCs is the creation of new collaborative supply chains to market differentiated products (USDA, 2012). This is for example underpinned by the value chain approach argued by Stevenson and Pirog (2008) and Bloom and Hinrichs (2011) as well as King et al. (2010) which concludes that SFSCs consistently involve important durable trading partner relationships. For that reason, this part of the literature study starts with

discussing theories concerning supply chain collaboration (section 2.3.1.), followed by the governance structure (section 2.3.2) and coordination mechanisms (section 2.3.3) which come all together in the conclusion in section 2.3.4.

2.3.1 Supply chain collaboration

Supply chain collaboration is defined as chain members which are actively working together to create competitive advantage and satisfy customers' needs (Matopoulos et al., 2007, Mentzer et al., 2000). It goes beyond purely transactions and is seen as a significant process that holds the opportunity for value creation (Cao and Zhang, 2011, Fu and Piplani, 2004). Theories from a supply chain discipline help to provide insights in the process of collaboration in SFSCs.

Hanf and Dautzenberg (2006) and Matopoulos et al. (2007) made a conceptual framework which comprises the theoretical aspects of supply chain management. They consider a supply chain as the collaboration between involved firms represented by a collaboration strategy: the overall strategy providing structured chain management. From these frameworks, two dimensions determinant for supply chain collaboration strategy could be derived. First, a collaboration strategy facilitates the alignment of involved parties and agreement on the objectives of cooperation. By establishing a collaborative strategy it is important that partners are motivated to collaborate and act in a manner consistent with the mutual strategic objectives rather than own goals (Simatupang and Sridharan, 2004). Second, the collaboration strategy incorporates the management of the interdependencies. The actions of involved parties should be aligned, or in other words coordinated. Hence, to achieve collaboration along a supply chain, the cooperation between parties as well as the coordination are important elements.

Concerning the collaborative strategy of a food chain, the focal company reserves a major role. The focal firm is generally seen as being responsible and the leading firm and the other firms usually are supportive and rather dependent. Though, mutual dependencies exist and supplying organizations could also obtain some power from the focal company (Belaya and Hanf, 2008). In most cases, the focal firm could be seen as the chain initiator. Certainly in SFSCs the initiator is equivalent to the focal firm (Baltussen et al., 2008). In most cases the SFSC initiative is in hands of a primary producer (supplier), distributing organization or buying party. Furthermore, a SFSC could be initiated by a (non-) governmental organization. However, these initiatives rather formulate a strategy serving a societal function by for example focussing on the intake of healthy food or education on food provision. In that case firms must be convinced of the added value of the initiative, which is not always self-evident. Research shows that these kinds of initiatives face difficulties to ensure subsistence on the long run. (Voort et al., 2011). The chain initiator plays thus an important role in the formulation of a collective strategy, which derives both cooperation and coordination.

Cooperation refers to the partnering strategy (Hanf and Dautzenberg, 2006), the design and government of activities (Matopoulos et al., 2007) and the alignment of interest (Gulati et al., 2005). These are all expressions to describe the arrangements among exchanges between firms. Different factors could be an incentive to cooperate with other chain members. This could refer to satisfying the end-consumer or optimize operational processes, improve innovation, reduce risks etc. Sharing costs and benefits is probably one of the crucial factors to guide companies to close cooperation (Matopoulos et al., 2007). Partners should share the gain as well as the pain (Cao and Zhang, 2011, Mentzer et al., 2000).

The extent to which parties are cooperating or in other words the 'depth' of cooperation could be explained by determining the orientation of cooperation. Mentzer et al. (2000) suggest that this orientation exists on a continuum varying from strategic to operational cooperation. *Operational*

cooperation comprises the optimization of operational efficiency and effectiveness. It involves a short term relationship, which obtains to enhance e.g. delivery time, stock level, and quality customer service level. S*trategic cooperation* in contrast is an on-going, long term inter-firm relationship. It aims at increasing customer value and enhances the competitive position of firms. In comparison with operational cooperation, this form of cooperation is more complex to implement and requires more organizational resources.

Operational cooperation could be effective to accomplish short term goals. However, in case of establishing a new product or supply chain, only an operational focus is not sufficient. Research based on Dutch case studies points out that in case only operational relations between producers and purchasers are established, the risk others will enter the market and copy the product is rather high. This will especially occur in case there are not many chain parties and the product is not very differentiated (Baltussen et al., 2008). By creating a strategic relationship between chain parties the involved food products are more difficult to reproduce by others, and thus ahead of the competition. Since the implementation of a strategic partnership is rather time consuming.

Notwithstanding the orientation of cooperation, it is important that firms are motivated to cooperate and act in a manner consistent with the mutual objectives rather than own goals (Simatupang and Sridharan, 2004). If problems in cooperation arise, most of the time this is caused by optimizing individual benefits instead of striving for collectively beneficial outcomes (Gulati et al., 2005 in Hanf and Dautzenberg, 2007). Hence, Gulati et al. (2005) consider problems in cooperation –alignment of interests- as problems of motivation. So, to align the interests, govern activities, design a partnering strategy beneficial for both involved parties, clear governance structures are necessary (Hanf and Dautzenberg, 2006). Hence, the cooperation between parties (alignment of interest) could be further explained by using insights of the governance structures, which are discussed in the next section.

2.3.2 Governance structure

A governance structure (GS) refers to the way in which transactions are carried out and administrated. A GS provides efficiency (i.e. minimize transaction costs) of transactions by incorporating the attributes of the transaction and environment in which the transaction is carried out. Hence, some governance structures are more efficient than others (Menard 2004). Derived from TCE, all governance structures vary between two extremes, a continuum between market on the one side and a firm on the other depending on the level of integration of activities, as shown in Figure 3.

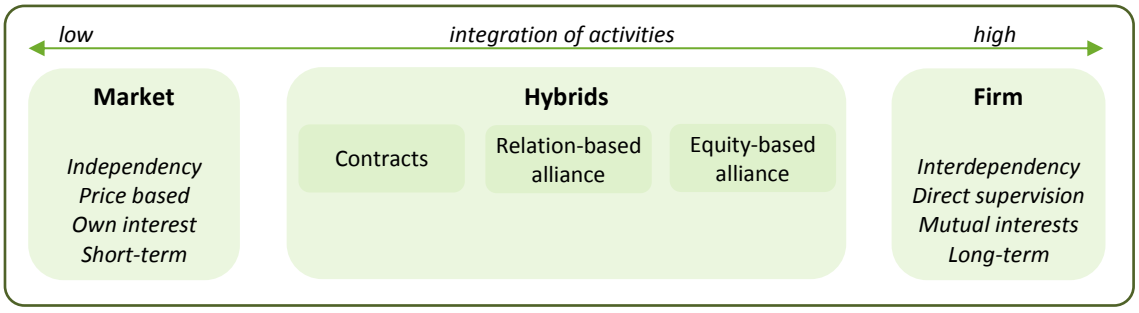


Figure 3: Continuum of governance structures adapted from Peterson et al. (2001)

On one end of the continuum, transactions are organized using the market. There is no alignment between parties except the price and both parties are not required to make specific investments and long-run relations are not ensured. The other end of the continuum involves transactions which are organized by vertical integration of activities of both firms; two parties in a transaction becoming one party. Formed by mutual interest, shared goals, reciprocity and pooled resources, activities of both actors

could be totally integrated. Next two these two structures, alternative governance structures -known as hybrids- are formulated (Slangen et al, 2008). Hybrids can neither rely on direct supervision nor on prices, hence specific governance structures for cooperating and coordinating transactions are demanded. Particularly in the agro-food sector hybrids are prominent, many transactions are governed by tailored structures and coordination mechanisms.

Hybrids could refer to many governance structures, varying from joint-ventures, cooperatives, sport leagues, franchisors to collaborative trade market etc. As Baker (2008) in Menard (2010) cites, 'firms have invented far more ways to work together than organizational economics has so far expressed'. As governance structures take into account the attributes of transactions and the environment, they vary heavily in their nature. Peterson et al. (2001) provide an understandable differentiation of hybrid structures taken into account the identity of involved parties and intensity of cooperation. They made the following distinction among hybrid structures

- **Contracts**

Contracts are a well-known governance structures for conducting an exchange. Transactions are performed using a bilateral contract in which the conditions of the transactions are specified. The price is leading and broadly accepted performance standards provide the base. Compared with the spot-market structure, parties have to invest more time to transact as more factors count than price setting and a yes or no decision (Peterson et al., 2001). Coordination increases and parties could rely on for example directives and safeguards or a third party in case one party fails to meet the requirements. Contracting governance structures based on durable relationships often coordinate more efficient than spot markets while avoiding integration of activities and its bureaucratic burden of more integrated governance structures (Ménard, 2004).

- **Relation-based alliance**

A relation-based alliance could be seen as 'an exchange relationship in which involved parties share risks and benefits emanating from mutually identified objectives'(Peterson et al., 2001). The main differences compared to contracts are that more than two parties could be involved and transactions are more complex. Parties are pooling part their resources, agree to work closely and must find means to solve internal differences and concerns, while they both remain separate entities. For the sake of clarity, these alliances could use and they do many times in practice, contracts as part of their relationship. These contracts could be seen as self- enforcing and mainly based on reputation as the identity of parties, informal agreements, rules, norms and incentives are crucial (Slangen et al., 2008). The existence of a contract in an exchange relationship does not necessarily mean that the GS is covered by the contract portion of the continuum; it could be seen as part of the alliances' basis.

- **Equity-based alliances**

This third type of hybrids is most discussed in literature and embraces cooperatives, joint-ventures and other more formal governance structures which involve some shared equity capital between parties. These governance structures rely on decentralized decisions, contracts and formulized procedures. A distinguishing feature of this organizational structure compared to a relation-based alliance is the presence of a formal organisation that has an identity distinct from the exchange actors and that is designed to be their joint agent in the conduct of the coordination activity (Peterson et al., 2001, Slangen et al., 2008). An equity commitment is made which makes defining of control rights and responsibilities more clear and coordination is arranged by a formal organisation structure. The ability to undo the cooperation is very little, as substantial investments in the new independent identity are made.

In the European agro-food industry, relation-based alliances and equity-based alliances among farmers and participants have become increasingly important (Ménard and Klein, 2004). According to Ménard and Klein (2004) they 'represent a balance between the benefits of centralized coordination and control and the incentive and informational advantages of decentralized decision-making'. Alliances are also seen as networks as they represent 'arrangements involving a set of recurrent contractual ties among entities' (Ménard, 2004). While network members pool significant resources, they often rely on relational contracts, rather than formal written agreements, though they do establish some formal coordinating mechanisms (Ménard and Klein, 2004).

The continuum shows us a classification among different governance structures to align interests of involved parties. The GS is a source of value as it governs transactions efficiently by taken into account the attributions of the transactions, identity of involved parties and their mutual relation. In the context of SFSCs, food is transacted and the relationship and identity of involved parties differ among cases. Involved parties could be both firms, but also involve consumers in case of direct to consumer supply chains. However, the literature related to governance structure does not include the involvement of consumers in their theories.

To indicate the governance structure especially used by direct to consumer SFSCs, authors try to conceptualize the interaction between producers and consumers and refer for instance to local partnerships (Lamine, 2008) or food community networks (FCN) (Pascucci, 2010). Notable, in case the bilateral interaction between farmers and consumer shows an increase in mutual dependence and decision right sharing. This could entail different forms, for instance private companies involving consumers as individuals, cooperative farms or schemes run by social insertion organisations for unemployed and low qualified people (Lamine, 2008), or more concrete, Community Supported Agriculture (CSA), farmer markets, box schemes or consumer buying groups (cooperatives) etc. are part of these producer-consumer governance structures.

The fundament of producer-consumer governance structures is that consumers and producer strongly integrate or align their goals by sharing and pooling part resources. Consumers invest time, information and financial resources and obtain guarantees of freshness and origin and perhaps a more qualitative nature concerning production practices. Producers are more certain of a stable income and reduce some of their costs (e.g. labour or certification) (Pascucci, 2010, Lamine, 2005). Applying the classification above, we could consider these governance structures as relation-based alliances or equity-based alliances. The mutuality in interests and sharing risks and benefits represents namely the base of a relation-based alliance. And in case a formal entity is formed and involved parties share also equity capital, for example by establishing a consumer cooperative, we could refer to an equity-based governance structure.

To distinguish producer-consumer governance structures we should distinguish between levels of consumer participation, corresponding to the level of integration of activities. Are they really involved in a firm's business or just a consumer which purchases directly from the producer? CSA, a farmer market as well as an on-farm shop are examples of direct marketing, though they differ in the degree of consumer participation. CSA is a partnership between farmers and consumers working together through membership. Consumer could be part of the farm and therefore maintain a relation-based alliance or an equity-based alliance. Meanwhile consumer buying products from a farmer market or on-farm shop are more likely to be not involved in a farm's business. Hence, to investigate the governance structure used within a SFSC, a distinction should be made whether the involved parties are firms and/or consumers and to what extent they are participating in one's business.

So far, different governance structures indicate how involved parties relate to each other and transactions are carried out. In case of SFSCs the involved parties could be both firms and consumers. To distinguish the governance structure among direct to consumer supply chains, the level of consumer participation should be taken into account. The continuum of governance structures shows us five different structures. Depending on the level of activities; the market, contracts, relation-based alliance, equity-based alliance or an integrated firm could represent governance structures of SFSCs.

Furthermore, parties involved in a transaction will always follow a mechanism to coordinate transactions. Next to cooperation, coordination is fundamental for supply chain collaboration. Hence, the focus on the alignment of actions of involved parties and maintenance of relationships could not be excluded. This brings us to the next section which discusses different coordination mechanisms.

2.3.3 Coordination mechanisms

Coordination refers to alignment of actions (Gulati, 2005), maintenance of relationships (Matopoulos, 2007) or supply chain management (Hanf and Dautzenberg, 2006); phrases which refer to the incorporation of each other's actions and hence the predictability of others' actions. Good coordination is necessary to deal with uncertainty about the behaviour of involved parties and the decision rules and to enable mutual adjustment on an on-going basis.

To provide more insights in the nature of coordination, one could refer to coordination mechanisms which reflect the mechanisms used to govern transactions. The coordination mechanisms closely relate to a governance structure as the nature of coordinating transactions characterizes the type of governance structure (Slangen et al., 2008). Figure 4 presents four groups of coordination mechanisms which are discussed below.

Price

The price as coordination mechanism corresponds in the ideal-typical situation to the market as governance structure. Derived from the principles of Adam Smith, the market is coordinated by only the supply and demand of products and therefore the price is the most important coordination mechanism (Peterson et al., 2001). Also, the price could also be an additional coordination mechanism by functioning as a compensation or motivation for the transaction. For most governance structures price is not sufficient to coordinate the transaction and hence other coordination mechanisms are used (Slangen et al., 2008).

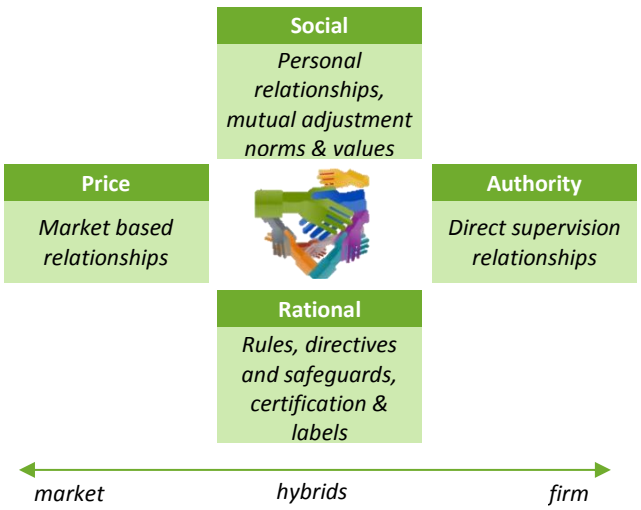


Figure 4: Four coordination mechanisms adapted from Borgen and Hegrenes (2005)

Authority
On the other end of the continuum, the firm, transactions are more likely to be coordinated by direct supervision and authority; or in other words the visible hand (Peterson et al., 2001). This kind of coordination is most of the time used in case a legal entity is formed which has the control (e.g. equity-based alliances and firms). This formal entity (higher in hierarchy) is responsible for the work of other firms (lower in hierarchy) and for coordinating the transactions. This is often associated with economies of scale, transaction specific investments and the protection of knowledge (Borgen and Hegrenes, 2005).

Rational
Alternative to price and authority, parties could coordinate their transactions using rationally oriented mechanisms which are understood as rules, directives and safeguards. These mechanisms can be used to secure expected quality of products or secure equal tasks (Borgen and Hegrenes, 2005, Slangen et al., 2008). It is mostly used in governance structures based on an instrumental motive, driven by self-interest and distrust. Hence, specified contracts are strongly coordinated by rules, directives and safeguards in which price could play a subordinate role.

Social
In addition to the more formal mechanisms of coordination (e.g. rationally and authority oriented), a number of informal elements could increase the predictability of other's behaviour and thus enable coordination. To illustrate, personal relationships, mutual adjustment, common values and norms could function as coordination mechanism. Social embeddedness is used as a guide to coordinate. In governance structures using social coordination mechanisms, informal agreements, reputation and repeated transactions are determinant rather than legal enforceability. Relational-based alliances emphasis from origin more on social mechanisms, a third party judge is practical not across in most of the agreements neither a formal joint management structure. The coordinating mechanism is based on mutual control arising from mutual interest (Peterson et al., 2001).

The four groups of coordination mechanisms are distinguished but they don't exclude each other and could be simultaneously applied in a governance structure. There is no one-to-one correspondence between coordination mechanisms and governance structure. Which coordination mechanisms are prevalent in SFSCs has not been studied in depth. However, Abatekassa and Peterson (2011) indicate the importance of social aspects and state that SFSCs are mainly based on existing relationships and linkages between the supply chain actors. Their results indicate that local food supply to retail outlets depends not only on the traditional supplier selection criteria such as price, volume and quality, but also on factors such as trust, reliability and information sharing. Furthermore, research focussed on farmer markets shows that price is not a determining factor in consumers' decision to participate (Pascucci et al., 2011), rather the direct interaction with producers, or the specific quality features of the foods coordinate transaction.

Socially oriented coordination could on itself be an important mechanism to coordinate, but also lower the importance of other coordination mechanisms. Research points out that a great deal of trust between consumers and the selling entity, decreased the need to specify the origin of products (which farmer produced the item) or to create a unique third-party certification scheme (USDA, 2012). Hence, the personal relationship between parties decreases the need to use rationally oriented coordination mechanisms to take into account each other's behaviour. Furthermore, King et al. (2010) concludes that close relationships give producers in the intermediated supply chains some flexibility in setting prices independent of commodity market prices. In such relationships the trading partners are willing to forego

short run price opportunities offered by other firms. So, the socially orientation is preferred above the price coordination mechanism.

On the other hand, research shows us that social mechanisms do play a role, but subordinate to the market-based relationships. If intermediate SFSCs become more successful, in terms of volume and sales, businesses tend to rely more on rational mechanisms instead of social mechanisms (Bloom and Hinrichs, 2011 and Stevenson and Pirog, 2008). So, depending on the transaction, involved parties and their mutual relationship, some coordination mechanisms tend to be more effective and efficient than others.

In sum, we identified four coordination mechanisms to coordinate transactions; the price, authority, rational or social oriented. Which coordination mechanisms prevail in a SFSC varies among different cases and seems to relate to the maintained governance structure. Empirical research has to show us which coordination mechanisms are used in Dutch SFSCs. So far, we discussed different elements regarding organizational structures, in the following section these element are connected to enable a structural understanding of SFSCs in the empirical part of the research.

2.3.4 Conclusion

This part of the literature review is included to gain more insights in how SFSCs could be organized to be valuable. To fulfil, theories from a supply chain management and transaction cost economics discipline are used by elaborating on supply chain collaboration, governance structures and coordination mechanisms. Combining these provides an overview of how involved parties of a SFSC could work together in order to be profitable and fulfil consumer demand. Figure 5 shows us which components of the literature are used and how these are connected.

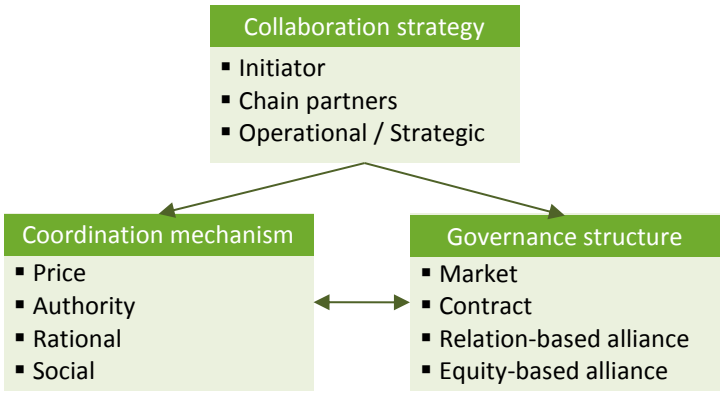


Figure 5: Summary of structural understanding of SFSC organization.

A great variety in structural complexity and spatial extensions among SFSCs exist. Many of them could be considered as the creation of new collaborative supply chains to market differentiated food. For that reason, we start by using theories from a supply chain management perspective. A supply chain could be seen as a collaboration between actors represented by a collaboration strategy (Hanf and Dautzenberg, 2006, Matopoulos et al., 2007). A supply chain strategy involves in turn cooperation and coordination of exchanges and therefore represents the organization along the supply chain. Concerning the collaboration strategy, the chain initiator plays an important role. It is the focal firm and other involved chain parties are more or less dependent. In this research, SFSCs are included initiated by either suppliers, distributors or buying parties. (Non-) governmental initiatives are not included as they rather have a societal function by for example focussing on healthy food on schools, education at the farm, stimulating urban farming etc. rather involved by establishing or development of SFSCs.

A collaboration strategy refers to chain partners who cooperate and need to coordinate their actions. In SFSCs these involved parties could be firms or consumers. Depending of the level of participation, consumers are seen as a collaborative partner or not. To provide an indication of the type of cooperation a distinction is made between operational and strategic oriented cooperation reflected. This means involved partners could be operational partners, which involves operational adjustment of each other's activities, or strategic partners which intensity the collaboration and plans to fulfil consumer demand are made together. Regardless the orientation, the interest of involved partners still need to be aligned which requires clear governance. So, to elaborate on the cooperation between involved partners insights of the governance structures are used.

Governance structures differ among cases as they attempt to govern transactions as efficient as possible by taking into account the attributes of the transaction, the identity of involved parties and their mutual relationship. Derived from transaction cost economics (TCE), the governance structure of organisations varies along a continuum which shows us five different governance structures; the market, contract, relation-based alliance, equity-based alliance and lastly the integrated firm. SFSCs could be organized using these structures, depending mostly on the level of integration of activities. Using a market to govern transactions, requires almost no integration of activities and involved parties do not depend on each other and transactions are designed by own interest of both parties. If activities are more integrated, parties could use contracts, a relation-based alliance or an equity-based alliance as governance structure. Depending on the identity of involved parties and mutual relationship one suits better than the other. On the other side of the continuum, in case activities are highly integrated, transactions could be carried out by the establishment of an integrated firm. However, in providing local food it is assumed that the integration of activities is limited and the integrated firm is less common to govern transactions. Therefore, this governance structure is left out in this research project and only the first four governance structures included.

Parties involved in a transaction will theoretically follow a mechanism to coordinate transactions which is characteristic for the governance. Our review distinguishes four coordination mechanisms which are price, authority, rationally (rules, directives, safeguards) or socially (norms, values and personal relations) oriented. The four coordination mechanisms differ among the governance structures, although some relations could be discovered. For example, the market governance structure is highly coordinated by price and the integrated firm by authority. Also, we could assume that within relation-based alliances socially oriented coordination is important. The most embedded coordination mechanisms used in the SFSCs, characterizes the coordination of exchanges.

In sum, the collaboration strategy represents how involved parties are cooperating and how exchanges are coordinated. This is reflected by different governance structures and coordination mechanisms. Taking this approach should provide a better understanding of the structural organization of SFSCs and substantiate different types of SFSCs.

2.4 Value creation and appropriation of SFSCs

One goal of the literature study is to identify how SFSCs could create and appropriate value. This has been slightly discussed while identifying the concepts of SFSCs and their organizational structures. Involved parties could for instance create value by emphasizing their geographical proximity or enhance social interaction, including less intermediaries or maintaining effective supply chain collaboration. This section is included to provide a structural understanding of the value creation and appropriation processes for which the concept of a business model (BM) is fundamental.

2.4.1 The road to a business model

SFSCs attempt to shorten the supply chain to be valuable for both producers (e.g. increased margin) and consumers (e.g. transparency). Each firm involved in SFSCs creates and captures value in a different way; whereas one starts to markets its products via a different channel, others try to establish strong bonds with consumer to be able to be profitable and add value to its customers. They apply different methods to ensure economic viability and satisfy consumer demand, or in others words, they have different business models. A business model (BM) comprises the 'logic' of a business (Casadesus-Masanell and Ricart, 2010). It provides a conceptual tool which includes 'the benefits the enterprise will deliver to customers, how it will organize to do so, and how it will capture a portion of the value that it delivers' (Teece, 2010). It represents the structure that connects a firm's core activity to a specific set of goals (George and Bock, 2011).

BMs has been part of the business jargon for a long time, but the concept is still not very well defined (Casadesus-Masanell and Ricart, 2010, Morris et al., 2005, Shafer et al., 2005, Osterwalder et al., 2005). One could get confused by the concept of product-market strategy (PMS), but a difference between them should be noticed (Seddon and Lewis, 2003, Amit and Zott, 2001, Chesbrough and Rosenbloom, 2002, Casadesus-Masanell and Ricart, 2010). A BM focusses on customer value and is constructed delivering that value (Chesbrough and Rosenbloom, 2002), while a PMS involves the positioning of the firm compared to its rivals (Zott and Amit, 2008). A BM focusses on cooperation, partnerships and joint value creation and emphasises the interaction with other chain parties and exchanges (Zott et al., 2011). Accordingly, we explicitly select the perspective of a BM to analyse the value creation and appropriation processes of SFSCs.

Amit and Zott (2001) made a solid contribution to the BM literature and based on a grounded theory study they consider the BM as a 'unifying unit of analysis that captures value creation arising from multiple sources' (Amit and Zott, 2001 and Morris et al. 2005). Theoretically, these multiple sources concern most essentially Porter's value chain and the strategic positioning of a firm. But they argue that also other theoretical underpinnings contribute and function as value sources, like the resources of a firm, its positioning in a network, transaction efficiency or innovation. Building on these theoretical angles, authors developed various frameworks to characterize a BM (Morris et al., 2005).

Morris et al. (2005) provide a useful summary of the existing BM literature and concludes that most perspectives on BMs include the firm's offerings and activities undertaken to produce them. Furthermore, management must consider the firm's value proposition, choose the activities which will be undertaken, and determine how the firm fits into the value creation network. Hence, three commonly adopted underpinnings of a BM are determined; the a) value proposition, b) value creation and c) value appropriation (Richardson, 2008).

The idea of these three different components is that they are essential in one's business, or in other words comprises the cornerstones of a viable business. The majority of the literature considers these either as alone-standing constructs or together as one entity which can change and innovate over time. To develop a general business model is challenging as to date most formulations of business models focus on the relevant constructs of the model. Literature discussing or focussing on the relation between the different constructs is less available and obscure. However, Hedman and Kalling (2003) suggest that a BM comprises causal relations. They demonstrate that in order to serve a particular market segment, the price/quality ratio should be satisfactory for the customer (i.e. value propositions) which in turn requires effective configuration of value chain activities (value creation). Also they mention that improvements in value chain activities must ideal-typically involve an offering that increases customer-perceived quality

and/or reduces cost. This means that different BM components are interrelated and the direction of the connection between constructs varies. To date, it could be stated that there is a lack of empirical support for suggested connection between the constructs (Rasmussen, 2007). For that reason the following sections discusses the three predominantly components rather as separate constructs. The last sections present the conclusions and shows how the different constructs will relate to each other in order to generate a conceptual tool to understand one firms' BM.

2.4.2 Value proposition

The value proposition refers to the reasons of customers to value the firm's offerings (Richardson, 2008). According to Teece (2010) 'a good business model yields value propositions that are compelling to customers'. Hence, the offering of the firm, what the firm sells and the intended customers or target markets are determining elements in the value proposition (Richardson, 2008).

The value offerings of a firm refer to the nature of the product and the assortment available for customers (Morris et al., 2005). What are the valuable components? At the first place, the offer should be different than competitors' ones. By doing so, producers have difference opportunities. Concerning SFSCs, they could for instance create a difference in 'quality' (e.g. taste, utterance etc.), a difference in territorial specificity or in production processes (e.g. animal welfare) (Ilbery et al., 2005, Voort et al., 2011). Case studies from the Netherlands state that when products are differentiated at more than one point (e.g. production mode, local or taste) the chance to be successful is higher (Baltussen et al., 2008).

Secondly, the targeted market is part of the value proposition. To whom sells the firm sell and where in the value chain does it operate (Morris et al., 2005)? The most general distinction exists between business-to-business (B2B) and business-to-consumer (B2C) practises (Osterwalder, 2004). Concerning SFSCs, B2B examples can be found in the intermediate food chains (e.g. food suppliers' cooperatives, restaurants, schools or catering businesses) and B2C examples involve direct marketing SFSCs such as on-farm shops or farmers' markets.

Third, to ensure a value proposition compelling to the customers, the customer relation is significant to take into account. Osterwalder (2004) subscribes this as 'the kind of links a company establishes between itself and its different customer segments. It refers to the way a firm goes to market, how it actually reaches its customers and how it interacts with them. Differences among the end-consumer should be taken into account, also in B2C SFSCs. A good example can be found in Bloom and Hinrichs (2011) and Forsman and Paananen (2004) which shows us that the perception of local food differs among consumers and heavily influences how business should handle (sell) local food; or in other words formulate their value proposition of their business.

In sum, a firm's value proposition should include potential competitive advantages in order to be successful. Hence, the strength of a firm's value proposition rests on its strategic positioning in which the product offer, targeted market and customer relationship take a central place (Richardson, 2008).

2.4.3 Value creation

The second component of a BM furthers details the value creation process and highlights the organization and structure to create, produce and deliver offerings. This part of the BM is considered as the source of the competitive advantage. Yet, arises the question; which activities are undertaken to create value? Hence, the capabilities and the links to other chain parties are important elements (Richardson, 2008).

The capabilities refer to the arrangement of activities that are necessary to create value for the customer (Morris et al., 2005). Authors also use the term 'core competency', which reflects the internal capability or

skill set through which the firm performs relatively better than others. The challenge is to identify significant points of difference that can be maintained which should match the value proposition. So, if the value proposition includes the supply of high quality foods, is should be reflected by activities (of all chain parties) that ensure that quality (Richardson, 2008). To realize value creation and delivery, the external relationships matter, or in other word the positioning in the value chain. These are initiated arrangements to carry out an activity which are based on commonly negotiated terms and conditions (Osterwalder, 2004). This part of the BM is closely related to the supply chain collaboration. Who are the key partners to create value and how is this organized? By enhancing the cooperative structure parties could better balance supply and demand, share information etc.

So far, value creation could be determined as the connection of a firm's core activity to a specific set of goals (the offers) regarding the capabilities and the external links. In addition, a BM comprises the structure rather than the activities of a firm (George and Bock, 2011). Hence, this research is not focussed on the actual activities of firms involved in SFSCs, but the supply chain structure to ensure value added products. The emphasis will be on the organizational structure of SFSCs in order to create value; the business relations.

2.4.4 Value capture

In case a firm formulates a strong value proposition and successfully creates and delivers that value does not necessarily mean it will earn greater returns, or even be viable (Richardson, 2008, Shafer 2005, Teece 2010). Many have a tendency to focus so much on the value creation part of the model that the value capture portion is ignored or at least downplayed (Shafer et al., 2005). So, important parts of the BM are the revenue sources and streams.

The revenue source involves the different ways of receiving money in exchange for its offers (Richardson, 2008). The way a company makes money through a variety of revenue flows could for example be selling, lending or licensing products, membership or advertising. Moreover, another income stream which should be included is the use of subsidiaries. Osterwalder (2004) links also the pricing system to the revenue streams and distinguishes fixed pricing from flexible pricing. The latter one allows it to set different prices for different customers what could be beneficial. For instance in the context of SFSCs, some consumers buy local to save money and others appear to be willing to pay a substantial premium (O'Rourke, 2009 in King et al., 2010).

SFSCs could have the capabilities and external links to ensure and enable to deliver value to the customers, though some initiatives face challenges in making it economic viable. For example, recent case studies point out challenges in balancing supply and demand and the logistics. To supply a retailer for instance, logistics should in most cases be arranged by the supplier itself which might cause viability problems. Hence, cooperation with a logistic party could be helpful. A good example can be found in the case of LiVar, a Dutch specialty pork meat product. The producers start to cooperate with two big distributors (Hanos and Sligro) which resulted in better demand forecasts and national supply of their products (Voort et al., 2011). So, this example shows that the revenue streams (value capture) of SFSCs relates to the cooperation with other chain parties (value creation), or in other words the organization.

2.4.5 Ambition

The value proposition, creation and capture are the essentials comprising a BM, though some argue a BM also should capture the entrepreneur's ambitions. These relate to some extent to the establishment of different types of businesses and therefore have important implications of how the business is designed

and performs. Accordingly, a BM must 'capture the entrepreneur's ambitions; what should the investments bring about (Morris et. al, 2005)?

The growth and revenue aspirations of entrepreneurs vary and four types of revenue orientations could be derived; subsistence, income, growth, and speculation. 'Subsistence' reflects the aim to survive and meet basic financial obligations, or in other words aims to cover the costs. An 'income focus' involves investments through which the business should provide an on-going and stable income stream. Also entrepreneurs could aim 'growth'; this involves the attempt to grow the value of the business so that it generates a capital gain for the investors. Lastly, a 'speculative' revenue focus involves a shorter the time frame and the aim is to show businesses' venture potential before selling (Morris et. al, 2005). These different types of revenue orientations represent the diversity of the aims of investments of the entrepreneurs.

2.4.6 Conclusion

To analyse the value creation and appropriation processes of SFSCs, the concept of a business model (BM) is used. The concept of a BM facilitates the analysis of how established businesses (e.g SFSC initiatives) differentiate their selves from others by the nature of their value proposition. It provides a structural understanding of businesses' added value. BM literature shows us three significant pillars constituting a BM; the value proposition, value creation and value capture process. Hence, a BM comprises the offers of a business (i.e. what they are attributing), how they create and deliver added to their customers and how they appropriate value. Figure 6 presents how these relate to each other and which components are included in this research.

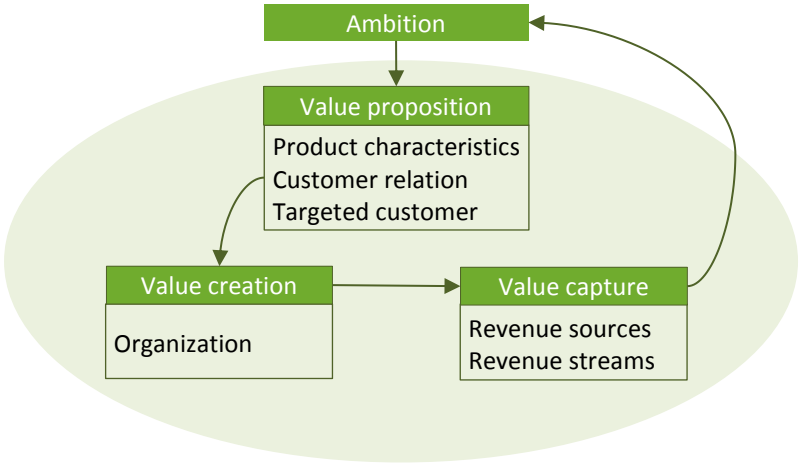


Figure 6: Summary of constructs comprising a business model.

Connecting the constructs should allow us to generate a general business model and consider them not as alone standing constructs. Since there is a lack of empirical support for suggested connections between the constructs, the lines are proposed relations between the different constructs. Empirical research should determine whether or not these relations are supported. The encircled area provides the base of a business model as it includes the three pillars to analyse the value creation and capture of firms. However, only including these three would be insufficient as literature shows us the importance of the ambition behind a BM as well. This comprises the reasons for establishment and should provide insights in the question: 'What is aimed by setting up the SFSCs initiative'? By a lack of further evidence, we select and posit the ambition behind an initiative as the starting point to analyse initiatives'' business models. Subsequently, the ambition behind the business model is directly linked to the value proposition, as the ambitions are substantiated into the value proposition of a SFSC initiative.

The value proposition comprises the actual offer brought about by the initiative which involves ideally a competitive advantage. It includes the general strategy to attract customers and the means to gain advantage compared to competitors. Important components of the value proposition are the product characteristics, the customer relationship and the targeted customer. Products should involve differentiating aspects, and to serve a particular segment the relationship towards customer is an important component. The value proposition directly influences the value creation of a business. Value creation concerns the delivery of the added value offers; the structure to combine the activities that must be performed in order to deliver value to the customer. Hence, the organization (of the chain) is determinant for the value creation. According to the literature value creation could be considered as the connection of firms' core activities to a specific set of goals. Therefore the organization of SFSCs should be organized in such a way it can deliver differentiated offer according to the value proposition.

Next to differentiated offers, value creation should compromise value for involved businesses. For that reason, the value creation component is linked to the value capture. Literature shows the correspondence between the value capture and performance or in other words; the economic viability. To investigate the economic viability, the revenue sources as well as streams are important elements to determine.

Furthermore, a business model develops and innovates over time. This is represented by the arrow connecting the value capture and ambition; a relation between the performance of the initiative and initial ambitions. In this research the development of SFSCs is considered as a process. A SFSCs initiative could for example strive for growth, more income, subsistence (cost coverage), or aims to show its venture potential. In turn, the revenue streams could indicate to what extent these ambitions are realized.

2.5 Theoretical framework

The aim of the literature study is to provide a structural understanding of SFSCs to gain insights in their characteristics, organizational formats and business models. As mentioned before, the current major concern about SFSCs is the absence of a common definition. Hence, for the sake of clarity we derived an operational definition based on our literature study which is fundamental for our further (empirical) research. Accordingly, a SFSC comprises:

The production and distribution of food products dedicated to regional or/and quality based production which is known for the connection between producer and consumer.

To investigate the characteristics of SFSCs several definitions were analysed which resulted in four differentiating disciplines (Section 2.1). Accordingly, SFSCs refer to a specific geographic area and added value for producers or local economy, bring up connectedness between producers and consumer and within a community and lastly could imply environmental benefits. Hence, the following distinguishing characteristics are taken in turn; 1) their geographic proximity, 2) economic viability 3) social interaction and lastly their 4) environmental sustainability (section 2.2). The literature study continues by focusing on the organizational formats of supply chains by elaborating on collaboration, cooperation and coordination (section 2.3). Lastly, the value creation and value capture activities of businesses are discussed by using the concept of a business model (Section 2.4).

These insights result in a theoretical framework (Figure 7) which connects the theories discussed in previous sections in such a way a structural understanding of Dutch SFSCs will be obtained. Using this theoretical framework the aspects of SFSCs highlighted by the operational definition could be further

specified and hence enables to investigate Dutch SFSCs. To investigate how the constructs apply to Dutch SFSC initiatives, propositions (P1 – P4) are derived to be assessed in the empirical part of the research.

The structure of the theoretical framework is derived from the theoretical perspectives of the value creation and appropriation process of firms and corresponds to the concept of a business model (section 2.4.1). Hence, we state four components; ambition, value proposition, value creation and value capture. Although, the value proposition, creation and capture provide the base of a SFSC initiative, the ambition behind a SFSC initiative is selected as the starting point. It involves the reasons of establishment and will provide an answer to the question: 'What should be obtained by the initiative?' (Section 2.4.5). For that reason and by lack of evidence, we posit to start with the ambition behind an initiative.

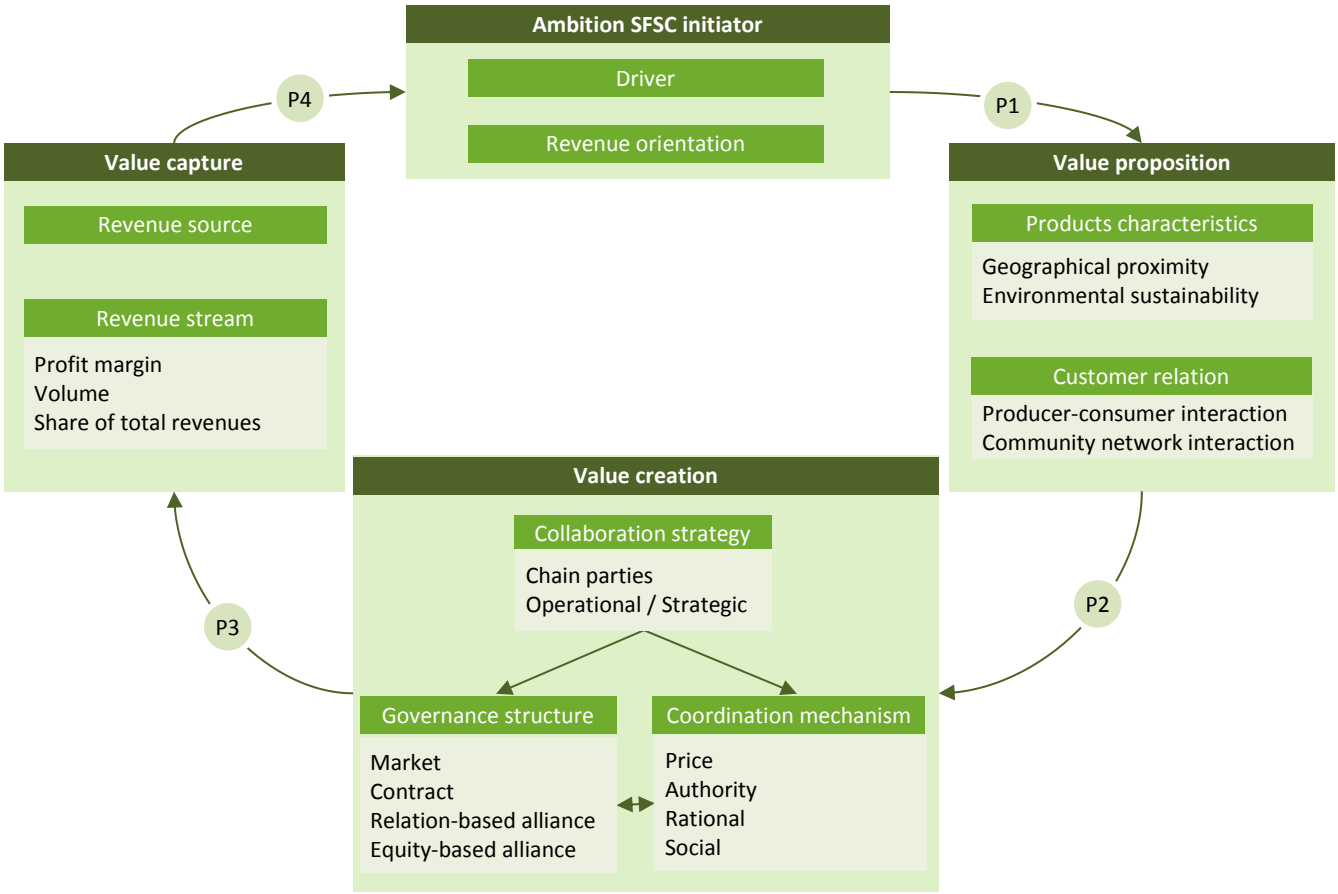


Figure 7: Theoretical framework

Ambition of SFSC initiator

Since the SFSC initiator has the lead of the initiative, its ambition represents the ambition behind the entire initiative. In most cases the SFSC initiatives are initiated by suppliers, distributors or purchasing parties. (Non-) governmental initiatives are not included in this research as they rather involve social functions (Voort et al. 2011) (e.g. enhancing healthy food on schools or education at the farm) and are not directly business focussed and hence beyond our scope. This research aims to provide an overview of SFSCs and not of programmes which are primarily established to enhance social and environmental values.

The ambition behind a SFSC initiative involves the drivers of the initiative and the expected returns on the investments, or in other words the revenue orientation. The drivers of a SFSC initiative involve the aims

which should be met. For example, this could refer to quality improvement of food products such as taste or freshness, but also refer to income for the producer. We are interested in whether the four differentiating characteristics of SFSCs found in literature correspond to the drivers behind an initiative. For example, SFSCs could be driven by an attempt to make a difference between geographical anonymity in food supply and territorial specificity, hence driven by geographical proximity. Also, SFSCs could be driven by their orientation towards economic viability of involved actors, contribution to environmental sustainability or considered as means to bring producer and consumer in closer connection or to engage in society. Hence, the four differentiating characteristics are used to investigate whether or not these characterize the drivers behind the Dutch SFSC initiatives.

Furthermore, literature shows us that the ambition behind an initiative also captures the revenue orientation (Section 2.4.5). The revenue orientation of entrepreneurs varies among cases in which the chain initiator plays an important role and four categories are distinguished; cost coverage, stable income, growth, and speculation. Cost coverage refers to the aim to survive and meet basic financial obligations. The stable income revenue orientation refers to the aim that the business is able to generate on on-going and stable income stream. A growth revenue orientation attempts to increase the value of the firm to a certain point that it eventually generates a major capital gain for the investors. A speculative revenue orientation uses a shorter time frame and the goal is to show its venture potential before selling.

After discussing the ambition behind the SFSCs we continue to examine their value propositions and the connection between the ambition behind an initiative and value proposition.

Value proposition

The value proposition concerns the customer value of an initiative which involves ideally a differentiated offer in order to be competitive and viable (Section 2.4.2). It embraces the a) actual products, b) customer relationship and c) the targeted customer. In this research these different constructs are linked to the differentiating constructs of SFSCS found in literature (section 2.2.5). Accordingly, SFSCs' value proposition concerning the product characteristics comprises geographical proximity (section 2.2.1) and environmental sustainability (section 2.2.4). The customer relation is then comprised by the features of the social orientation characteristic is important (section 2.2.3). The economic viability is another differentiating characteristic; however this is rather considered as a result of the other characteristics and hence included in the value capture construct (section 2.2.5).

Concerning the product characteristics, the food products supplied by SFSCs could be differentiated by an emphasis on the geographical proximity of food products. This could be approached by producing and distributing food products in a circumscribed area, or by emphasizing the importance of the production area (Section 2.2.1). Furthermore, claims are made concerning the environmental sustainability of SFSCs. SFSCs are many times considered as food chains reducing gas emissions by limited food miles and producing foods in an environmentally beneficial manner. However, it is difficult to state whether or not this is realized (Section 2.2.4). In many cases the effect of the short travel distance counteracts the low loading capacity.

Next to the product characteristics the customer relation is an important component of the value proposition. Concerning SFSCs it is important to preserve the territory and identity of the food products from the producer to the final consumer. For that reason the producer-consumer interaction is part of the customer relationship construct. Derived from a social perspective, the producer-consumer relationship in SFSCs could be classified into three types of relations; a face to face interaction, a proximate interaction and lastly an extended interaction (Section 2.2.3). Not only the interaction between producer and consumer matters, also the involvement in a network (society) and reputation of a SFSC initiative could be

important. The social interaction within a network is in this research acknowledged as the creation of social capital. The creation of social capital (underlined by trust, reciprocity, norms and values and networks) could have two functions; bonding and bridging. This means SFSC organizations could engage in activities which aim to strengthen the current network or to attract others outside the network (customer base) (Section 2.2.3). Theoretically also the target customer is part of a business' value proposition. Concerning SFSCs, this could involve consumers or other firms which depends on the position of the business in the value chain. However, as this becomes clear by specifying the SFSC initiator, this construct is not included separately.

By including these components, the value proposition of a SFSC should become clear. Since the value proposition involves the customer value of the initiative, it could be considered as the elaboration of the ambitions behind the initiative. It represents the specification of the ambitions which should be accomplished by the initiative. Ideal typical we could consider the ambitions as the goals of the initiative and subsequently, the value proposition as the means to achieve these goals. Hence, we posit that the value proposition of SFSCs derives from their ambitions behind. To connect the ambition behind an initiative and their value proposition, the following proposition is formulized.

P 1 The ambition behind a SFSC initiative comprised by the driver and revenue orientation influences the value proposition comprised by the product characteristics and customer relation.

After discussing the value proposition, we continue to examine the value creation of SFSCs and the connection between the value proposition and value creation.

Value creation

The value creation could be considered as the arrangements of activities that are necessary to create value for the consumer, or in other words, to elaborate the value proposition. Value creation concerns the delivery of the added value offers; the structure to combine the activities that must be performed in order to deliver value to the customer. Hence, the organization (of the chain) is determinant for the value creation. Theories concerned with the collaboration strategy, governance structure and coordination mechanisms are used to obtain a better understanding of the structural organization of SFSCs.

A supply chain could be seen as the collaboration between parties represented by a collaboration strategy. The collaboration strategy facilitates on the hand the alignment of involved parties and agreement on the objectives of cooperation and on the other hand the coordination, management of the interdependencies (Section 2.3.1). Concerning SFSCs collaborating partners of the chain initiator could be firms or consumers. Depending of the level of participation, consumers are seen as a collaborative party or not. Also the collaboration strategy comprises the type of cooperation between partners. To provide insights in the type of cooperation a distinction is made between operational and strategic oriented cooperation. This means involved parties could be operational partners, which involves operational adjustment of each other's activities, or strategic partners which intensify the collaboration and plans to fulfil consumer demand are made together. However, regardless the type of cooperation the interest of involved partners needs to be aligned which requires clear governance. Hence, the governance structure is an important component of the value creation construct.

The governance structure indicates how transactions are carried out taking into account the attributes of the transaction, the identity of involved parties and the mutual relationship between firms (Section 2.3.2). Derived from transaction cost economics, the governance structure varies along a continuum which comprises five different governance structures; the market, contract, relation-based alliance, equity-based alliance and lastly the integrated firm. SFSCs could be organized according to one of these

structures, mostly depending on the level of integration of activities. In case activities are highly integrated, transactions could be carried out by the establishment of an integrated firm. However, in providing local food it is assumed that the integration of activities is limited and the integrated firm is less common to govern transactions. Therefore, this governance structure is left out in this research project and the first four governance structures are taken into account.

Partners involved in a transaction will in principle follow a mechanism to coordinate transactions which is characteristic for the governance (Section 2.3.3). Our review distinguishes four coordination mechanisms which are price, authority, rational (rules, directives, safeguards) or social (norms, values and personal relations) oriented. The coordination mechanisms differ among governance structures, although some relations could be discovered. For example, the market governance structure is highly coordinated by the price and firms on authority. However, the coordination mechanisms are not mutually exclusive and a governance structure could involve more coordination mechanisms. However, the ones which are most embed within the exchanges characterizes the coordination.

These three components contribute to a better understanding of the structural organization of SFSCs to deliver added value. How SFSCs are organized varies among cases and seems to correspond to the value proposition. Since the organization of an initiative should deliver and comply with the proposed customer value, we posit that the differentiating characteristics of SFSCs influence the organizational structure. To determine whether the product characteristic and customer relationship and targeted customer value proposition influences the value creation, the following proposition is formulated.

P 2 The value proposition of SFSCs comprised by the product characteristics and customer relationship influences the value creation comprised by the collaboration strategy, governance structure and coordination mechanisms.

After discussing the value creation of SFSCs, we continue to examine the value capture of SFSCs and the connection between these two constructs.

Value capture

While determining the added value and organization of a SFSC initiative it is also important to find out whether or not it is economic viable. In business model terms this is seen as value capture in which attention is paid to the revenue sources and streams. The revenue source involves the different ways of receiving money in exchange for its offers. This could for example be selling, lending or licensing products, membership, advertising or subsidiaries. The revenue streams relate to the performance as they involve the margins and revenues brought about by the initiative. In this research the economic performance indicators found, such as the profit margin, volume and share of total revenues are used to determine the value appropriation of SFSC initiatives. This provides information about the actual contribution of SFSCs for involved parties and hence prevents an overvaluation of the economic benefits of SFSCs (Section 2.2.5).

Literature shows us the importance of cooperation and alignment of actions in order to fulfil customer demand and be profitable. The inclusion of certain chain parties and a collaboration strategy could increase the chance to survive and generate higher revenues. The organization of an initiative seems thus to relate to the performance of an initiative. A strategic collaboration for example involves long term agreements in which group interests are placed above individual interests, which ideally should lead to win-win situations. As part of the collaboration, the governance structure indicates the most efficient way to organize transactions. In order words, it economizes the exchanges between (chain) partners. Moreover, some mechanisms provide more room for discussion about for example the price than others.

Hence, in this research we posit that the organization of a SFSC influences the economic performance of a SFSC.

P 3 The value creation comprised by the collaboration strategy, governance structure and coordination mechanisms influences the revenue streams generated by a SFSC.

Literature shows that the structure of a business model is represented by a set of causal relations and develops (changes) over time; a modification of one of the constructs has its consequences for other ones. For that reason the development of SFSCs is considered to be a process. As the revenue orientation represents the aim of the investments in SFSCs, the volume and generated revenues (revenue streams) could indicate whether or not this is realized. Hence, we posit that the revenue streams determine the extent to which the aims of SFSCs are realized. The following proposition is formulized to relate the economic performance of a SFSC initiative to the ambition behind.

P 4 The generated revenue streams of a SFSC initiative influences the ambition behind further developments of a SFSC initiative

All the propositions are derived to be assessed in the empirical part of the research. How the proposed connections and different constructs are tested is discussed in the Chapter 3, the methodology of the research.

3 METHODOLOGY

This chapter describes the methods used to conduct the empirical research. The previous chapter presented the literature study and gained insight in differentiating characteristics of SFSCs, organizational structures and value creation and appropriation of businesses. These insights resulted in theoretical framework which is used as input for the empirical research. To conduct the empirical research in an appropriate way, the following question need be answered.

RQ 2: Which research methods should be used to conduct a reliable inventory and classification of SFSCs in the Netherlands?

To provide an answer section 3.1 discusses the selected research strategy and section 3.2 the process of case selection. In section 3.2 the constructs comprising the theoretical framework are operationalized and in section 3.4 insights are provided concerning the actual data collection.

3.1 Research strategy

As there is a common understanding, but no common definition, this research aims to clarify what the concept of a SFSC implies in a Dutch context. Meanwhile, an overview of different SFSCs is obtained, since there is no overview of different SFSCs yet. For that reason a theoretical framework is constructed which forms the base to obtain a structural understanding of SFSCs. Based on this framework propositions were made which connects the different constructs. Empirical research has to indicate how the constructs apply and whether the proposed connections apply to Dutch SFSCs. To provide an overview (of the diversity) of SFSCs in the Netherlands an inventory is conducted, which involves the following components.

Qualitative survey
To fulfil in answering the research question, the strategy of a survey is selected. According to Verschuren and Doorewaard (1999) a survey is a 'type of research of which the researcher tries to gain an overall picture of a comprehensive phenomenon spread out over a period of time and space'. It is characterised by large number of research units, fewer time consuming methods to generate date, and according to them it requires a more 'breadth than depth approach'.

Many times a survey covers only quantitative methods of research (e.g. statistical variation in populations), however, there is also a qualitative way of defining. This involves the determination of diversity of some topic of interest and is called a qualitative survey. The main characteristic of this research strategy is a not very well defined population. Hence this type of research is sometimes typified as an application of the 'grounded theory approach' method (Wester and Peters, 2004). This research strategy is selected as is the aim of our research is to provide an overview of different SFSCs, or in other words to show the diversity among SFSCs.

Cross-sectional design
As the aim is to collect data on multiple cases at a certain moment in time, we applied a cross-sectional design. This means that a body of quantifiable data has to be collected within a certain period in connection with two or more variables (Bryman, 2004). In this research the structure is provided by the theoretical framework which contains both the constructs and variables.

Structured interviews
The execution of the survey will be done with the help of structured interviews. This makes the results easily comparable. Based on the constructs of the theoretical framework a questionnaire is developed which consists both open and multiple choice questions. The open questions provide us background information and further detail the constructs. Hence, the results could be placed in perspective. Multiple choice questions are used to test and give weight to the different constructs. Preferably the chain initiator is selected to provide the required information. In case this is not possible because of agendas or time schedules, experienced experts could be approached. Via the structured interviews the researcher aims to get a complete and comparable picture of different SFSC initiatives. The interviews are telephonic conducted. A written questionnaire is not selected because of the expected high rate of non-response. Nowadays entrepreneurs receive many interview requests which are most likely not one of their priorities. A telephonic conducted questionnaire increases the response rate and is less time consuming compared with a face to face interview. Also it allows the respondent to provide additional information (next to the answers to the questions) which could be used for a better understanding. How the questionnaire is exactly constructed discusses sections 3.2 and 3.3.

Explorative interviews
In order to cover as much different SFSC initiatives as possible, explorative interviews with expert are held. Their network is ideally used to reach the right stakeholders and increase the accessibility. More important, these interviews also provide valuable information about the developments of certain SFSCs. As mentioned before, the role of experts could be extended to a role of chain initiator, in case these could not be approached.

3.2 Case selection (sampling)

As the aim is to cover relevant differences among SFSCs, theoretical sampling is used to select cases. Via this approach a better understanding of the SFSC concept could be obtained. Based on the literature study, SFSC initiatives (cases) are selected which meet the following criteria:

- Involved in the supply of fresh food products in the Netherlands
- Dedicated to a geographical area or a regional speciality food product
- Direct supply from producer to consumers
- Indirect supply, including several producers, food service companies, retailer or distributor
- Committed to regional food production (a link with place of production or producer)

By setting up these criteria, only supply chain initiatives which highlight the regional production of food products are part of this research. In order to conduct the process of case selection organized, different SFSC initiatives are broadly categorized by determining which chain participant is the prime initiator. Based on the literature study we could assume that the chain initiator has the lead and the overview of the initiative and hence the right stakeholder to interview. By categorizing the initiatives in such a way the main stakeholders and the role of other chain participants becomes clear, which is useful information for the actual data collection. Hence, a distinction is made between suppliers', distributors' and buyers' initiatives. Table 6 provides an exploratory overview of these which include subcategories, example cases of Dutch SFSC initiatives and an estimation of the total population.

Cases are selected using on the one hand typical SFSC market arrangements found in literature, such as on-farm shops and farmers markets. On the other hand, the criteria mentioned above are used. In this research we did not attempt to cover all SFSCs across the Netherlands. The case selection is based on cases representing SFSCs according to the categories specified in Table 6. The case selection should

provide data in order to determine how the constructs (represented by the theoretical framework) apply in a Dutch context and in turn determine different types of SFSCs.

Table 6: Exploratory indication of SFSC initiatives in the Netherlands.

Chain initiator	Categories	Example cases	Number*
Supplier	Farm shop	*Boerderijwinkel* *Landwinkel*	1315[a] 85[b]
	Farmer markets	Boerenmarkten	100[a]
	Home delivery/box schemes/web shop	*Vers van de Kweker/Landzicht/Groentetassen*	500[a]
Distributor	Broker	*Willem en Drees/Streekselecties*	n.e.i**
Buyer	(Special) retail shops	*Marqt*	n.e.i**
	Catering services / Restaurants	*La Place/D'n Bonte Wever*	n.e.i**
	CSA initiatives	*De Oosterwaarde, de Nieuwe ronde etc.*	5[c]
	Consumer Cooperatives	*VersVoko's*	10[c]

* Approximation of the total population a) Hendriks-Goossens et al.(2012) b) Landwinkel (2012) c) Platform-Aarde-Boer-Consument (2012)
** n.e.i. = not enough information available

Since there is no overview of SFSCs in the Netherlands it is difficult to indicate upfront the actual research units and determine how many of them have to be included in this research. To ensure that the sample presents the diversity of the SFSCs, cases from each chain initiator category are selected. However, the population among the categories varies heavily according the numbers in Table 6. The Netherlands counts around 1400 on farm shops, whereas around 5 farms concern CSA practises. As the aim of the sampling is to include cases which in the end should represent the diversity of SFSCs, cases are also sampled using convenience sampling.

This sampling method is based on the ease of data gathering, which is very useful for this research project given the limited time scope. Regarding some categories (e.g. farm shops and home delivery), it is not possible to select an accurate sample size. To ensure a representable sampling for these categories, additional criteria are defined based on preferably Dutch research and expertise of experts relevant for a certain category. As experts are notable for their overview and knowledge concerning one of the categories they could provide useful information about the diversity within a category.

It is aimed to include approximately 50 initiatives, spread over the 8 different categories which are used as the starting point of our sampling (Table 6). In other to get insights in the cases which belong to a certain category, different types of references are used, presented in appendix I (Table 37). Websites, reports and information derived from the interviews with experts are used to select (prominent) cases in this field of research. As mentioned before, by interviewing different experts the probability to cover all different SFSCs is increased.

3.3 Operationalization

All components which are part of the theoretical framework contribute to a structural understanding of SFSCs and their characteristics. These are operationalized in order to measure and include them in the empirical research. Hence, a distinction is made between the constructs, variables and indicators which is fundamental for our questionnaire (Table 7).

Table 7: Operationalization of constructs comprised by the theoretical framework.

		Constructs	Variables	Indicators
SHORT FOOD SUPPLY CHAIN	*Ambition*	**Rationale**	Driver	Economic/Social / Environmental / Geographical
			Revenue orientation	Subsistence / income/growth/speculative
	Value proposition	**Product characteristics**	Geographical proximity	Geographical production-distribution area
			Environmental sustainability	Production mode Food miles
		Customer relation	Producer – consumer relationship	Face to face / proximate / extended
			Network interaction	Bonding / bridging
	Value creation	**Organization**	Chain partner	Supplier / distributor / purchaser
			Collaboration strategy	Operational / strategic
			Governance structure	Market / Contract / relation-based alliance / equity-based alliance
			Coordination mechanisms	Price / authority / rational / social
	Value capture	**Performance**	Revenue source	Sales / membership / subsidies / advertisements
			Revenue streams	Volume / % of total revenues

How the constructs, variables and indicators are measured is shown below in which the theoretical framework is operationalized into interview questions. Each component of the theoretical framework is reflected in an interview question, so that a structural understanding could be obtained. Most of the interview questions are based on previous scientific work in the field of SFSCs or relevant theoretical field. A distinction is made between interview questions which are underpinned by other scientific work and question which are based on (derived from) other researches; not every construct is included in other scientific work. The operationalization of the constructs into research question presents Table 8. The interview design is discussed in the next section 3.3.

Table 8: Operationalization of included theoretical constructs into interview questions.

Construct and Variable	*Interview question*	*Measurement*
AMBITION		
Driver	Could you indicate three factors which incite you to establish the initiative? Could you indicate the importance of the listed factors?*	Open 5 point Likert scale: Not important to very important
	Could you indicate the importance of the following factors in establishing the initiative? - Geographical proximity between producers and consumers - Economic viability - Environmental sustainability - The reputation (engagement in society)	5 point Likert scale: Not important to very important
Revenue orientation	Could you indicate the ambition behind the investments in the initiative?(1) ☐ Cost coverage ☐ A stable income ☐ Increase the value of the investment to gain major capital ☐ To increase its (create) venture potential	Categories
VALUE PROPOSITION		
Competitive advantage	Could you indicate three factors which differentiate the initiative from other supply chains (the competitive advantages of the initiative)?	Open
Geographical proximity*	Are involved foods produced and distributed in a specific area? If yes, could you indicate the limitation by using a radius or a region ☐ …… km ☐.....Region	Yes / No Open & Categories
Environmental sustainability	Are the food products biologically produced?	Yes / No
	Do involved products have an environmental sustainable hallmark? If yes, which one? ☐EKO ☐ Milieu keurmerk ☐ Beter leven ☐ Bio+ ☐Other	Yes / No Categories
	Does the initiative aim to reduce the amount of food miles? If yes, how?	Yes / No Open
Producer – consumer relationship	Could you indicate how the interaction between the producer and final consumer is configured? (3) ☐ Face to face ☐ Via intermediaries who guarantee the producers' identity ☐ Via intermediaries by the use of labels and certificates	Categories
	Could you indicate to what extend you agree or disagree with the following statement: - For our initiative it is very important to communicate the identity (the producer) and territory (place of production) of food products to the final consumer	5 point Likert scale: totally disagree to totally agree
Network interaction	*(Only in case the SFSC initiative is part of a wider business*): Could you indicate to what extend you agree or disagree with the following statement: (4) - The incorporation of the SFSC initiative contributed to the reputation of the firm (engagement in society and creation of social capital) - The incorporation the SFSC initiative strengthen the bond with the current customer base - The incorporation the SFSC initiative widen the customer base	5 point Likert scale: Totally disagree to totally agree

* This question is removed from the finalized questionnaire as respondents could not provide a plausible answer. Concerning the geographical proximity a question is added which investigates whether the majority of involved products are sourced from the Netherlands or own produce in case of supplier's initiatives (e.g. farm shops or farmers markets). This resulted in a better differentiation among the geographical proximity of the initiatives.

Construct and Variable	*Interview question*	*Measurement*
Network interaction	Has your company been involved (with other business or (N)GO's) in any community building activities? (4 & 5) If yes, could you indicate which ones and to what extend you disagree or agree with the following statements: □ The involvement in community building activities strengthen the bond with the current customer base □ The involvement in community building activities widen the customer base	Yes / No Open 5 point Likert scale: Totally disagree to totally agree
VALUE CREATION		
Chain parties	Do consumers participate in decision making processes concerning the business? (6) If yes, how?	Yes / No Open
	Which chain partners are involved in the SFSC initiative? Who are the most important chain partner(s) ☐Supplier ☐ Buyer ☐ Distributor ☐ Other.....	Categories
Collaboration strategy	Do you formulate a collaborative strategy together with the chain partners?	Yes / No
	Could you indicate to what extend you agree or disagree with the following statements (7) □ The cooperation with other chain partners is based on practical and short term adjustments □ The cooperation with other chain partners is based on long term intentions	5 point Likert scale: Totally disagree to totally agree
Governance structure	Could you indicate how exchanges between chain partners are organized by using the following categories (8): ☐ The standard market, no contracts ☐ Specified contracts ☐ Relation-based agreements ☐ Establishment of formal entity with shared capital (Equity-based alliance)	Categories
Coordination mechanisms	Could you indicate to what extend you agree or disagree with the following statements: (9 & 10) To coordinate the exchanges between chain partners, in nature the following mechanism prevails: □ The price □ Certificates, guarantees and safe guards □ The personal relationship □ The institution (authority)	5 point Likert scale: Totally disagree to totally agree
VALUE CAPTURE		
Revenue sources	How are the costs of this initiative covered primarily (11)? ☐ Selling ☐ Membership ☐ Licencing ☐ Subsidies ☐ Other	Categories
Revenue streams	Is the product margin of the food products higher compared to other market channels? (5) If yes, could you express this by using a percentage?	Categories Open
	What percentage of total volume for your business is linked to the SFSC? (12) ☐ 0-5% ☐ 5-10% ☐ 10-20% ☐etc.....	Categories
	What is the share of the revenues of the initiative compared to the total revenues? ☐ 0-5% ☐ 5-10% ☐ 10-20% ☐ etc.....	Categories

1) Morris, M., Schindehutte, M. & Allen, j. 2005. The entrepreneur's business model: toward a unified perspective. *Journal of business research,* 58**,** 726-735. pp. 730
2) Ilbery, B. & Maye, D. 2006. Retailing local food in the Scottish–English borders: A supply chain perspective. *Geoforum,* 37**,** 352-367.pp,355
3) Renting, H., Marsden, T. K. & Banks, J. 2003. Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning A,* 35**,** 393-411. pp
4) GLOWACKI-DUDKA, M., MURRAY, J. & ISAACS, K. P. 2012. Examining social capital within a local food system. *Community Development Journal*

5) KING, R. P., HAND, M. S., DIGIACOMO, G., CLANCY, K., GOMEZ, M. I., HARDESTY, S. D., LEV, L. & MCLAUGHLIN, E. W. 2010. Comparing the structure, size, and performance of local and mainstream food supply chains. *Economic, Research Report No. ERR-99*
6) BALTUSSEN, W. H. M., OOSTERKAMP, E. B., VAN MIL, E. M. & HAGELAAR, G. 2008. *Kansen en belemmeringen in duurzame ketenvorming : primair bedrijf in ketens?,* Den Haag, LEI.
7) MENTZER, J. T., MIN, S. & ZACHARIA, Z. G. 2000. The nature of interfirm partnering in supply chain management. *Journal of Retailing,* 76**,** 549-568
8) PETERSON, H. C., WYSOCKI, A. & HARSH, S. B. 2001. Strategic choice along the vertical coordination continuum. *The International Food and Agribusiness Management Review,* 4**,** 149-166
9) BORGEN, S. O. & HEGRENES, A. 2005. How can Transaction Costs Economics add to the Understanding of New Contractual Formats in the Norwegian Agri-food System? *Working Paper No 2005-7.* Oslo: Centre for Food Policy, Norwegian Economics Agricultural Economic Research Institute.
10) SLANGEN, L. H. G., LOUCKS, L. A. & SLANGEN, A. H. L. 2008. *Institutional economics and economic organisation theory : an integrated approach,* Wageningen, Wageningen Academic Publishers
11) OSTERWALDER, A. 2004. *The Business Model Ontology - a proposition in a design science approach*.
12) ROEST, A., OLTMER, K., JAGER, J., VENEMA, G., VOSKUILEN, M., SCHOORLEMMER, H. & HENDRIKS-GOOSSENS, V. 2010. *: Omzet en omvang,* Den Haag, LEI Wageningen UR

3.4 Data collection

3.4.1 Interview design and execution

The interview aims to obtain information on the SFSC initiative with regard to the a) ambition behind the establishment / development of the SFSC, b) different characteristics, c) the structural organization and d) economic performance. In the previous section the constructs of the theoretical framework are operationalized into research questions. The interview questions reveal information of the relevant constructs in such a way the concept of a SFSC could be clarified built on a Dutch context. Most of questions involve a multiple choice for the interviewees, though to gather a complete picture of the SFSCs also open questions are part of the interview. The interview discuses different topics and is constructed as follows:

1) Introduction to the topic
2) Interview questions concerning the ambition
3) Interview questions concerning the value proposition
4) Interview questions concerning the value creation (organization)
5) Interview questions concerning the value capture (performance)
6) Concluding remarks

The introduction of the interview provides the respondents background information of the research, the time scope, structure of the interview and permission to record. Also the introduction is used to comfort the respondent to some extent by for example quotations of general facts about the relevant initiative which are already known by the researcher. The interview adheres to the order in which the constructs are operationalized presented in Table 8. The actual interview is presented in appendix I.

In order to conduct the interview properly, the interviewer adheres to the question order and questioning and did not steer, interpret questions or improvise. All interviews are telephonic conducted given the limited time scope. The interview lasted between the 15 and 45 minutes, depending on the willingness of the respondents to provide (additional) information. In all cases the representative of the initiative is interviewed like farmers related to a farm shop, the initiators of home delivery or CSA practices and restaurant owners. Except for one initiative the representative could not be reached and another person, known for its overview of this particular initiative, is interviewed. A list of all included cases is presented in appendix III. In total 57 responses (SFSC initiatives) are included by initially 71 contacts. Due to representatives' time schedules, absence of the right stakeholder or no willingness (overwhelmed) not all

approached initiatives could be included. The first approach to reach the representatives is done by phone and via a so called 'cold call'. Depending on the time schedule of the representative the interview could take place or another appointment was made. In some cases respondents asked for more background information about the research which subsequently was provided by mail. The interviews were held in Dutch and the provided answers translated into English. The interviews were conducted during the period from the 12th of June till 9th of July 2012.

The included initiatives are spread around the Netherlands and no particular regions are in- or excluded. Figure 8 below presents this by showing the geographical spread of the cases and the Dutch population density. In general, the geographical spread of the included cases corresponds to the population density of the Netherlands. Most of the included cases are located in the red and orange Dutch provinces.

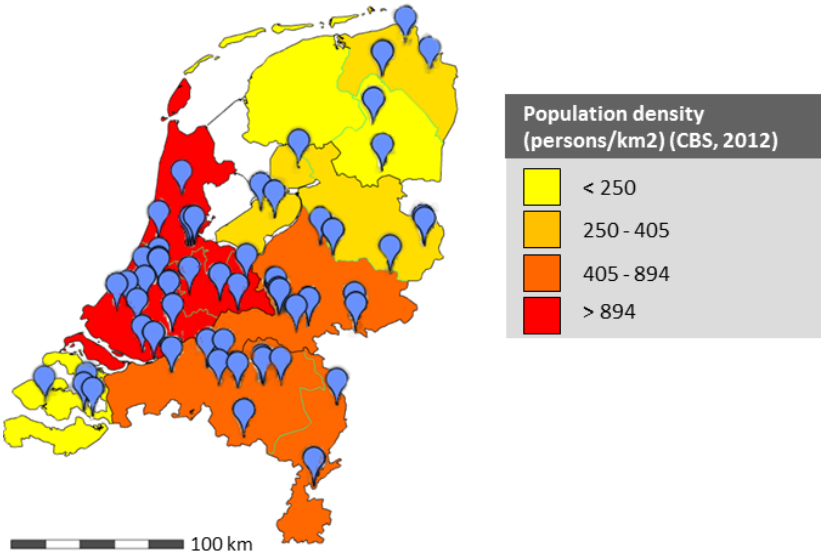


Figure 8: Geographical spread of the included Dutch SFSC initiatives.

3.4.2 Data analysis

This section discusses the data analysis process; using information gathered in the interviews during the field survey. The interview includes different types of questions; open, Likert scale and multiple choice questions. These are approach differently which is discussed below.

- **Open question**

The interview (see appendix II) includes different types of open questions; a) question with one possible answer and b) question with multiple answers. Questions which belong to the first category refer to a year (question 1), a percentage (question 8, 22, 23 and 24) or region (question 8). The provided answers are self-evident and could be used for further analysis. The questions which result in multiple answers of the respondents (question 3, 6, 11 and 14b) are categorized and coded.

Open coding is used and involves an analytic process through which concepts are identified and their properties are discovered in the data. It is concerned with identifying, naming, categorizing and describing regularities found in the provided answers. Codes (i.e. labels) are attributed to the data by distinguishing common properties. A code is most often a word or short phrase that symbolically assigns a summative and captures the essence.

We derived recognizable codes which as much as possible relate to the terms used in the literature study. However, the codes are derived from the available data and not the other way around. The diversity of

provided answers and amount of available data allows us to use only family codes and no further subgroups. For example, in our interview respondents were asked to indicate the drivers behind their initiatives (maximum of three). Subsequently, by the analysis we found that relatively many different respondents use spontaneously the same words to indicate their driver. Many respondents use the word 'income' to indicate their driver behind their SFSC initiative which is very clear and self-evident. However, that is not the case for every provided answer. For example the code 'quality' is derived from responses literally including the word quality, but also answers with a reference to freshness or what other respondents indicate as the supply of 'good food'.

When respondents mentioned more than one driver, these are not always represented by different codes. As illustration, in one case a respondent describes one of their drivers as improving the direct contact with the consumers which is labelled with code 'connection'. The other indicated driver refers to the opportunity to provide consumers a story about the production process of the offered products. After a review this is also labels with the code 'connection'. These are two different drivers mentioned by one respondent, though both labelled by the same code. Some answers were too diverse and different from other ones, which could not be places under other codes and hence are labelled by the code 'other'.

- **Closed question**

The closed questions which are included in the research concern Likert scale question and multiple choice questions. Data from Likert scale questions (question 4, 6, 4a/c, 18, 20 and 26) is theoretically ordinal which means that it tell us something about the order of provided answers, but nothing about the differences. So, if respondent X answers a Likert scale question with 5 (very important) and respondent Y with 2 (of little importance), it tells us that respondent X found it more important than Y, but not how much more important. In case we want to test whether there are differences between the provided answers of different types of respondents (e.g. suppliers' versus buyers' initiatives) an independent non-parametric test should be used. An independent test, because the behaviour of one respondent does not influence the behaviour of another. This brings us to the *Mann-Whitney U test* which requires that our two samples are statistically independent and ordinal observations (Field, 2009). Using this test allows us to compare different group means concerning the construct and hence the opportunity to investigate whether there are significant differences. To fulfil, a one-tailed exact significance level of 0.05 is used as the aim is to test the statistical significance in one direction. Considering the number of included cases, the exact value provides more reliable results. In addition, frequency figures and the response percentages are rounded up to the nearest integers. Hence, in some cases the total sum deviates from the ideally 100%.

As discussed before, the data derived from Likert scale questions are ordinal and hence the descriptive data should include frequency tables and a median instead of means and standard deviation. However, printing means could be appropriate as it provides a good overview of the tendency of provided answers; the number that is provided can give us an indication of what the average answer is. Hereby, the standard deviation is also important as it give us an indication of the average distance from the mean. A low standard deviation would mean that most observations cluster around the mean.

- **Multiple choice question**

The majority of the included questions are multiple questions which refer to a yes or no answer or different answer categories. These answers are used to differentiate initiatives and to test relation between other variables (i.e. provided answers) and accordingly the proposition we derived. To fulfill, the Chi Square test is used in which the exact two-tailed significance level is taken into account, seen the number of included cases. In case, the conditions of this test could not be met (i.e. counted cells are less than 5), the results of the Fisher test are used.

3.4.3 Included cases / samples

Data is collected and cases are categorized using the pre-defined categories as described before (section 3.2). These categories are based on the type of initiator (i.e. supplier, distributor or buyer) and corresponding market arrangements. In short, the category supplier's initiative subsumes all initiatives initiated by producers (i.e. farmers, growers). Hence, on-farm shops, producers at farmer markets, home delivery services are part of this group. Distributor's initiatives include initiatives which are initiated by a distributing firm or a group of producers which act like intermediaries between producers and buying firms. Hence, producers' cooperatives and brokers are part of this category. Lastly, the buyers' initiatives involve businesses which directly sell their products to consumers, e.g. retailers and restaurants. Based on this categorisation the research includes the following number of cases presented in Table 9.

Table 9: Included cases in the empirical research distributed over the pre-defined categories.

Chain initiator	Categories	Number	
Supplier	- Farm shop	8	
	- Farmer market	7	**26**
	- Home delivery / box schemes / web shop	11	
Distributor	- Broker	11	**11**
Buyer	- (Special) retail shops	5	
	- Restaurants	6	**20**
	- CSA initiatives	6	
	- Buying clubs	3	
TOTAL			**57**

By a closer look it becomes clear that the expected link between the type of initiator and the corresponding market arrangement is not realized in all cases. Concerning the home delivery cases for example, some of them turned out to be initiated by distributors and buyers instead of suppliers only. By taking these mutations into account, the following Table 10 represents the included cases with regard to the type of initiator and market arrangements. Hence, this research includes 19 suppliers', 13 distributors' and 25 buyers' initiative.

Table 10: Included cases in the empirical research distributed over the pre-defined categories after a review.

Categories	Supplier	Distributor	Buyer	TOTAL
Farm shop	6	-	2	**8**
Farmer market	6	-	1	**7**
Home delivery / box schemes / web shop	3	2	6	**11**
Broker	-	11	-	**11**
Retail shops	-	-	5	**5**
Restaurants	-	-	6	**6**
CSA	4	-	2	**6**
Buying clubs	-	-	3	**3**
TOTAL	**19**	**13**	**25**	**57**

4 RESULTS

This chapter discusses the results of the empirical research according to the theoretical concepts as discussed in the theoretical framework (section 2.5). Each section presents the results concerning a construct of the theoretical framework. The end of each section provides a conclusion in which the main findings are presented and analysed in order to examine whether the formulated propositions are supported. This should provide insights in the third research question:

RQ3: *What characterizes SFSCs in the Netherlands?*

Accordingly, section 4.1 discusses the ambition behind the SFSC initiatives, followed by section 4.2 which discusses the value proposition. Section 4.3 discusses the value creation of SFSCs and section 4.4 the value capture. Lastly, section 4.5 discusses their future challenges.

4.1 Ambition

The first element which is discussed in the theoretical framework concerns the ambition behind a SFSC initiative, or in other words the aims of establishing an initiative. Hence, it includes the drivers to establish the initiative (section 4.1.1), of which the importance of the differentiating disciplines found in literature are also part (section 4.1.2), and the revenue orientation (4.1.3). These three different constructs are discussed below and in the last section 4.1.4 the conclusions are presented.

4.1.1 Drivers behind the SFSC initiatives

The representatives of all SFSC initiatives were asked by means of an open question to indicate their drivers to establish the initiative. Respondents were able to formulate more than one driver, though it was not obligatory. The 57 initiatives provided in total 116 answers which are reviewed and coded. As a result, 8 codes are derived representing the different drivers behind the initiatives which are presented in Table 11.

Table 11: Spontaneously mentioned drivers behind SFSC initiatives.

Drivers	# Mentioned	%
1) Connection (producers and consumers)	30	26%
2) Economic viability	20	17%
3) Quality	14	12%
4) Support for producers	14	12%
5) Entrepreneurship	9	8%
6) Transparency	8	7%
7) Environmental sustainability	6	5%
8) Geographical proximity	3	3%
Others	12	10%
TOTAL	**116**	**100%**

Most frequently mentioned drivers are socially related and refer to the 1) connection between producers and consumers (26%). Many representatives of the SFSCs mentioned the aim to improve the bond between producing food and consumption. The underlying reasons to improve this connection could involve the identity, presence and appreciation of the business (i.e. food producers). For other SFSCs the driver behind goes beyond this bond between producer and consumer, and aims to increase social cohesion within a community and attempts to provide engagement in society. Also representatives subscribe their driver as 'providing a story behind the products; offering an experience'. Hereby they allude to relate consumption to the process behind (i.e. the producers and required resources). As the

latter mentioned responses do not directly involve the connection between producer and consumer, they are all coded as the same driver 'connection'. The reasons to do so is that they are all socially related and somehow concern the connection with consumer, community or food production.

A second frequently mentioned type of driver refers to the 2) economic viability of the business (17%). In these cases initiatives were established to make the business more economically viable by supplying or purchasing food via alternative channels. Another type of driver which could be distinguished refers to the 3) quality of food (12%). The majority of the respondents mentioned quality itself by specifying their driver, for the other respondents this involves the freshness of the products or the artisan element. The fourth type of driver involves the 4) support of producers (12%); SFSC initiatives are established with the aim to increase the position of the producers. Respondents mentioned the attempt to offer an alternative (shorter) channel for producers' products and increase the attention for these products. Others respondents refer to the dependency of producers on other parties (e.g. the wholesale) and aims to decrease this dependency.

The fifth type of driver comprises 5) entrepreneurship (8%). The representatives recognize for example an increase in demand for certain products (biological produce) or service (e.g. box schemes) which were the drivers to start the initiative. Drivers which refer to 6) transparency involve the sixth type of driver (7%). For example, respondents refer to the aim to decrease the anonymity of the food chain and increase the transparency. In one case the respondent refers to the increased demand of consumers to identify the origin of the products. Another type of driver which could be distinguished involves 7) environmental sustainability. 5% Of the mentioned driver refers to the environment, biological production, pollution or ecological system. This means that these initiatives are driven by increasing the access of biological products, or aims to decrease pollution and be more environmental sustainable in producing and consuming food. Furthermore, in three cases the drivers explicitly refer to the region or locality which provides the last type of driver; 8) geographical proximity (3%). The aim of these SFSCs is to limit the distribution area of food products. All the remaining drivers refer to different issues and hence subsumed to one group of 'others'. For example, in this group drivers vary from corporate social responsibility to the aim to increase the liveability of neighbourhoods.

It is interesting to notice that two of the differentiating characteristics of SFSC found in literature (I,e, social orientation and economic viability), are also recognized as important drivers behind the initiatives. Many SFSCs are either driven by establishing a connection between producer and consumer (i.e. socially related) or the aim to increase of the economic viability of their business. Hence, it is striking that environmental sustainability and geographical proximity are less frequently mentioned drivers behind the SFSC initiatives. Since the literature study shows us also the importance of these two. This result is taken into account later on (section 4.1.2) by discussing the importance of these differentiating characteristics when establishing the SFSCs.

After we derived 8 types of drivers, it is interesting to investigate whether there are differences between the SFSC initiatives. When we differentiate the suppliers', distributors' and buyers' initiatives the results presented in Table 12 are generated. Clear differences between the categories could be noticed. By a look at the suppliers' category, these are mostly driven by two types of drivers. From the 19 suppliers' initiatives, 16 respondents indicate economic viability (income) as their driver, which is a remarkable high score compared to the other initiators. Hence, we could state that the suppliers' initiatives are mostly driven by economic aims. This could be significantly confirmed with a Chi Square of 33.75(2) and p=0. Furthermore, also socially related drivers are quite often referred to; 9 respondents indicate the

connection between producer and consumer as their driver. The other type of drivers are less frequently mentioned and for that reason considered as less important for the suppliers' initiatives.

Concerning the 13 distributors' initiatives, the most frequently mentioned drivers refer to the support for producers and hence involves the facilitation of a new market channel (N=7). In 5 cases the social connection between producer and consumers is mentioned as one of the drivers and 4 respondents refer to entrepreneurship; the willingness to do business or respond to a recognized increased demand. These results suggest that the most important drivers for the distributor's initiatives are the producer's product margin.

Concerning the 25 buyers' initiatives, two types of drivers could be distinguished. In most cases (N=12) the drivers concern the connection between producers and consumers. Respondents refer to the experience of the food products, the story behind the products and hence the connection to the processes behind the food products. For 9 initiatives the quality of the involved products is indicated as their driver. In most cases this refers to freshness of the products, but also to quality attributes like the taste. In sum, the connection between producer and consumer and the quality of the food are considered as the most important drivers for buyers' initiatives. Also remarkable is the relative high number of 'others' (N=8). Buyers' initiatives seem to have more unique drivers to start their SFSC compared to the other type of initiators. For example, in one case the representative refers to the introduction of modern technology in de agricultural sector as its driver. Another buyer considers the reputation of the supermarket (neighbourhood supermarket) as the driver behind introducing regional products.

Table 12: Driver behind SFSCs according to the type of initiator (N=57)[5].

	Supplier N=19	Distributor N=13	Buyer N=25	TOTAL
1) Connection producers and consumers	**9**	5	**12**	26
2) Economic viability	**16**	-	3	19
3) Quality	2	1	**9**	12
4) Support producers	-	**7**	7	14
5) Entrepreneurship	1	2	5	9
4) Transparency	1	4	4	8
7) Environmental sustainability	1	-	5	6
8) Geographical proximity	-	2	1	3
Others	2	2	7	11

Based on our results we can conclude that respondents refer to 8 different drivers behind the SFSC initiatives. The most important ones are a) socially related and involve the connection between producer and consumer and b) the aim to increase the economic viability. The type of initiator seems to influence the drivers behind the initiatives. For suppliers, economic viability of the business and the connection between producer and consumer are the most important drivers. Concerning distributors' initiatives, the support for producers is an important driver. Buyers' initiatives, apart from the connection between producer and consumer, are driven by the quality of the products.

4.1.2 Importance of the four differentiating characteristics of SFSCs

In the literature study four differentiating disciplines are found representing the characteristics which distinguish SFSCs from other food supply chains (section 2.2). The first characteristic concerns the geographical proximity of SFSCs; being connected to a specific place or region. The second characteristic

[5] The figures in Table 12 involve the numbers of initiatives; hence these could differ from the results in Table 11 which presents the number of mentioned drivers. By a review the different mentioned drivers of a respondent are in some cases labelled as the same code (i.e. considered as the same type of driver).

involves the economic viability of involved businesses. The third characteristic comprises the social interaction between producer and consumer and the engagement in a community and network. Fourth, the environmental sustainability is found to be a differentiating characteristic.

In this research we are interested in whether these disciplines correspond to the ambition behind a SFSC initiative and hence characterize the driver behind an initiative. For that reason we are interested in answering the question: "Are these four disciplines found to be important by establishing an SFSC initiative?"

The importance of the four disciplines representing the differentiating characteristics of SFSCs is examined by means of four Likert scale questions. The respondents were asked to indicate whether or not the different disciplines were important when establishing the SFSC initiative. The results are presented in Figure 9, Table 13 and Table 14. These results suggest that on average the different disciplines are evaluated as important when establishing the initiatives. Most of the respondents evaluate them higher than moderately important and the differences are rather small; 77% of the respondents indicated both the geographical proximity (mean of 4.2) and social orientation (mean of 4.0) as important and 61% indicated the environmental sustainability (mean of 3.6) as important. Only the economic viability of the business is evaluated as less important compared to the other disciplines (mean of 3.1); only 42% of the respondents found it important and 25% moderately important.

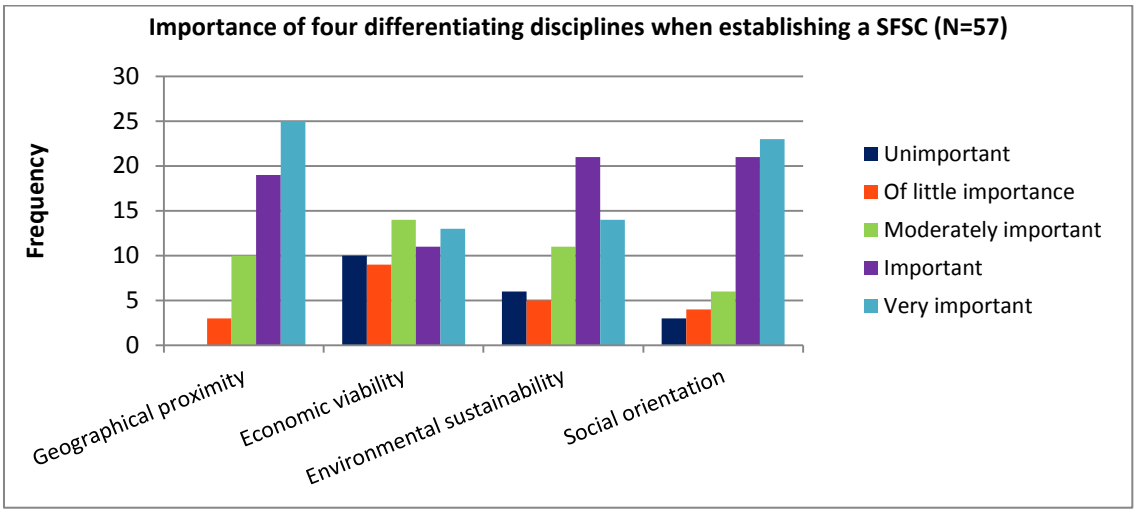


Figure 9: Frequency of answers regarding the importance of four differentiating disciplines (N=57).

Table 13: Frequency percentage regarding the importance of four SFSC differentiating disciplines (N=57).

	Important	Moderately important	Unimportant
Geographical proximity	77%	18%	5%
Social orientation	77%	11%	12%
Environmental sustainability	61%	19%	19%
Economic viability	42%	25%	33%

Table 14: Mean and std. dev. regarding the importance of four SFSC differentiating disciplines (N=57)

	Average		Supplier		Distributor		Buyer	
	Mean	*Std. dev.*	*Mean*	*Std. dev.*	*Mean*	*Std. dev.*	*Mean*	*Std. dev.*
Geographical proximity	4,2	*0,90*	4,4	*0,7*	4,0	*1,1*	4,0	*0,9*
Economic viability	3,1	*1,41*	3,8	*1,2*	3,2	*1,5*	2,6	*1,4*
Environmental sustainability	3,6	*1,25*	3,5	*1,3*	3,3	*1,3*	3,7	*1,3*
Social orientation	4,0	*1,13*	4,0	*1,1*	4,0	*0,9*	4,0	*1,3*

This is an interesting result as the economic viability is one of the most frequently mentioned drivers behind an initiative and geographical proximity and environmental sustainability not (see Table 11). By investigating this difference, certainly we should notice the difference between a driver behind a SFSC initiative and a discipline which is important while establishing a SFSC initiative. In addition, respondents could portray the initiatives more socially desirable rather than being honest, and hence value the importance of the geographical en environmental discipline higher. However, the results concerning the economic viability discipline show the highest standard deviation (1.41). This means that the respondents are not very unanimous and evaluate the importance differently.

This is supported by the fact buyers' initiatives evaluate the economic viability as less important (mean of 2.6) compared to the other initiators when establishing the SFSC initiatives (Table 14). Especially compared to the suppliers' initiatives which seem to evaluate the economic viability higher (mean of 3.8). To compare the means of these two groups and investigate whether they evaluate the importance of economic viability differently, a Mann-Whitney test is used. Accordingly, the difference between the buyers' and suppliers' initiatives regarding the importance of economic viability is statistically significant (U=117.5, p=0.002). This corresponds to our prior results regarding the drivers behind initiatives, which suggest that suppliers' initiatives are mostly driven by the aim to increase economic viability. There is no significant difference between suppliers' and distributors' initiatives (U=89.5, p=0.10). For all other disciplines the differences between the initiators could not be statistically confirmed.

To further analyse the relationship between the importance of the differentiating disciplines and driver behind the initiatives a comparison is made. The difference in evaluating the importance of the disciplines is compared between initiatives driven by a particular driver and those who are not driven by this driver (Table 15).

Table 15: Importance of the four differentiating disciplines related to the mentioned drivers.

Discipline	**Mentioned driver**											
	Connection N=26		No Connection N=31		Economic viability N=19		No Economic viability N=38		Environ. Sustain. N=6		No Environ. Sustain. N=51	
	Mean	*Std. dev*	*Mean*	*Std. dev*	*Mean*	*Std. dev*	*Mean*	*Std. dev*	*Mean*	*Std. dev*	*Mean*	*Std. dev*
Geographical proximity	**4,4**	0,8	**4,0**	0,9	4,4	0,8	4,1	0,9	4,2	0,8	4,2	0,9
Economic viability	**2,8**	1,3	**3,4**	1,5	**3,9**	1,2	**2,7**	1,3	2,3	1,5	3,2	1,4
Environmental sustainability	3,6	1,3	3,5	1,2	3,4	1,4	3,7	1,2	**4,5**	0,5	**3,5**	1,3
Social orientation	**4,4**	0,9	**3,6**	1,2	3,8	1,3	4,1	1,0	4,3	0,5	4,0	1,2

Regarding the initiatives which emphasize the connection between producer and consumer as driver (N=26) evaluate significantly the social orientation discipline as more important (mean of 4.4) compared to the initiatives which are not driven by the connection (U=238.5, p=0.002). Also, a difference referring to the economic viability and geographical proximity discipline could be discovered. It seems in case initiatives are driven by the connection between producer and consumer the economic viability discipline is considered as less important (U=298.5, p=0.04) and geographical proximity discipline as more important (U=301.5, p=0.04).

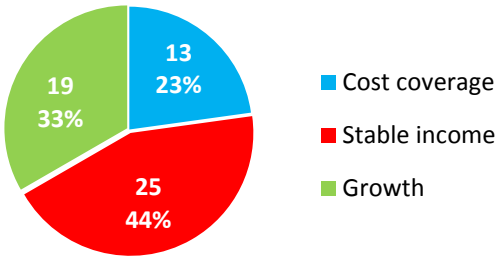
Furthermore, the initiatives from which one of its drivers refers to economic viability (N=19), the importance of the economic viability is significantly evaluated higher (mean of 3.9) compared to the cases which did not indicate it as one of their drivers (U=182.5, p=0.001). Mentioning economic viability as driver has thus an influence on how the importance of economic viability is evaluated. Comparing these two groups (economic viability versus no economic viability) the differences concerning the other disciplines are not significant.

Although, the number of initiatives which mentioned environmental sustainability as one of its driver is small (N=6), we could discover significant differences compared to the ones which did not. The first ones the environmental sustainability discipline is evaluated as more important (U=76.5, p=0.03). For the other mentioned drivers the differences are rather small and not significant.

To conclude, these results suggest to some extent a relation between the mentioned drivers and the importance of the differentiating disciplines when establishing the SFSCs. It is interesting to notice that the geographical proximity discipline is evaluated as very important which could not be related to the mentioned drivers or type of initiator.

4.1.3 Revenue orientation

The third variable which is part of the ambition behind an SFSC initiative comprises the revenue orientation according to the representative of the initiative. In the literature four different types of orientations are distinguished; cost coverage, stable income, growth and speculative. These were all included in the questionnaire and the results are presented in Figure 10 and Figure 11. A speculative orientation was not indicated at all. This means that none of the initiatives had the intention to show its venture potential to subsequently sell it.



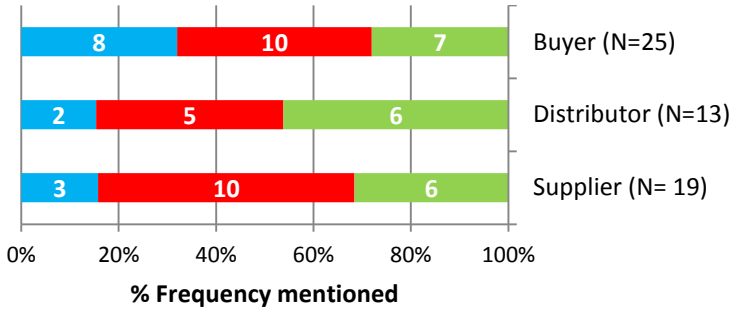


Figure 10: Revenue orientation of the SFSC initiatives (N=57)

Figure 11: Revenue orientation according to the different SFSC initiators

From all initiatives (Figure 10) the aim to achieve a stable income (N=25) is most frequently mentioned followed by growth (N=19) and cost coverage (N=13). Most of the initiatives aim to be profitable and a minority aims at covering the costs. By a differentiation among the different initiators we could see small differences between the indicated revenue orientations. From Figure 11 we could derive that suppliers tend to orientate towards a stable income. From the 19 suppliers' initiatives, 10 indicate a stable income as their revenue orientation and only in 3 cases, cost coverage is mentioned. Distributors' initiatives seem to orientate more towards growth (from the 13 distributors initiatives, 6 indicated a growth orientation and 5 indicated a stable income). The revenue orientation of the buyers' initiatives (N=25) tend to focus more on cost coverage in comparison with the other type of initiators (N=8). This is especially true for the CSA, buying clubs and the two buyer initiated farm shops.

Next to investigating the differences between the types of initiators, we are interested in whether or not the different revenue orientation relate to the drivers behind the initiatives. Table 16 presents the frequency of answers according to the most frequently mentioned drivers. Based on these results it could be stated that the initiatives which are driven by economic viability, are likely to aim their generated revenues at a stable income (63%). And if we have a look at the initiatives from which one of the drivers refers to the connection between producer and consumer, they tend to orientate the revenues towards cost coverage (42%). Though, about this relation respondents are less unanimous as no majority could be discovered. In case the two drivers (economic viability and connection) are combined we could find

majorities. The initiatives which are driven by economic viability and not by establishing a connection (N=10), orientate at a stable income and growth (70% versus 30%) and not at cost coverage at all. Conversely, from all initiatives which indicate connection as one of their driver and not economic viability (N=17), the majority aims at cost coverage (59%). In both cases a Chi Square test provides significant results. Hence, we can conclude that connection as driver corresponds to a cost coverage revenue orientation ($X^2(1)=11.2$, p=0.004) and economic viability to a revenue orientation other than cost coverage ($X^2(1)=6.3$, p=0.04).

Next to these findings, it is interesting to notice that the initiatives driven by the aim to support producers (N=14), focus more at growth (50%) compared to the other type of drivers. Especially considering the relative stable percentage of respondents who indicate growth as their revenue orientation (i.e. varies around 33%). Also it is interesting to notice that initiatives which driven by entrepreneurship (N=9) do not focus their generated revenues at cost coverage at all.

Table 16: The revenue orientation of SFSCs related to their driver behind.

Mentioned driver	N	Revenue orientation		
		Cost coverage	Stable income	Growth
Economic viability	*19*	1 (5%)	**12 (63%)**	6 (32%)
No economic viability	*38*	12 (32%)	13 (34%)	13 (34%)
Connection	*26*	11 (42%)	7 (27%)	8 (31%)
No connection	*31*	2 (6%)	**18 (58%)**	11 (35%)
Economic viability & No connection	*10*	0	**7 (70%)**	3 (30%)
No Economic viability & Connection	*17*	**10 (59%)**	2 (12%)	5 (29%)
Economic viability & Connection	*9*	1 (11%)	5 (56%)	3 (33%)
No Economic viability & No Connection	*23*	4 (17%)	11 (48%)	8 (35%)
Quality	*13*	2 (15%)	7 (54%)	4 (31%)
Support producers	*14*	4 (29%)	3 (21%)	7 (50%)
No Support producers	*43*	9 (21%)	22 (51%)	12 (28%)
Transparency	*8*	4 (50%)	2 (25%)	2 (25%)
Entrepreneurship	*9*	0	5(56%)	4 (44%)

To conclude, the revenue orientation of the SFSC initiatives corresponds to some extent to their drivers. The representatives seem to orientate their revenues more towards generating a stable income or growth if they indicate economic viability or support to producers as one of their drivers. Initiatives which are driven by establishing a connection between consumer and producer are likely to orientate their revenues towards covering the costs.

4.1.4 Conclusion

We found 8 different relevant drivers behind the SFSC initiatives. Furthermore, we wondered if the four differentiating characteristics of SFSCs found in literature could characterize the drivers behind an SFSC initiative. Solid relations between the importance of these four disciplines and mentioned drivers are found. Initiatives driven by establishing a connection between consumer and producer, the social orientation discipline is significantly more important compared to the initiatives indicating other drivers. This is also true for SFSCs driven by economic viability that evaluate the economic viability discipline significantly higher and the ones driven by environmental sustainability for which the environmental sustainability discipline is more important. However, it is remarkable that the geographical proximity

discipline is evaluated as very important, while it does not relate to their indicated drivers. This result is discussed more in detail in section 4.2.1.

The majority of SFSC initiatives are driven by a) the connection between producer and consumer (N=26) or b) the economic viability of the business (N=19). For the initiatives driven by a connection between producer and consumer, the social orientation and geographical proximity seem to be important rather than the economic viability, when establishing the SFSCs. The relation between the driver 'connection' and geographical proximity is discussed more in detail in section 4.2.1. The generated revenues of these SFSCs should cover the cost rather than generate a stable income or growth. The initiatives which aspire to increase the economic viability of their business, aim their generated revenues at a stable income rather than covering the cost. Next to these to these two types of ambitions, also other ambitions may apply in the SFSCs. This could involve initiatives from which their ambition concerns the quality of products, support to producers, or environmental sustainability. As the relation between these drivers and the other variables comprising the ambition are less obvious, these drivers are solely taken into account by the further analyses.

4.2 Value proposition

The value proposition concerns the customer value of an initiative which involves ideally a differentiated offer in order to be competitive and viable (Section 2.4.2). As presented in the theoretical framework the value proposition comprises a) the product characteristics which in this research are referred to geographical proximity (section 4.2.1) and environmental sustainability (section 4.2.2) and b) the customer relationship which concerns the consumer-producer relationship (section 4.2.3) and community network interaction (section 4.2.4). These are discussed per variable below by investigating differences and similarities between the SFSC initiatives. Lastly section 4.2.5 provides conclusions about the value propositions of SFSCs and discusses whether the first proposition is supported, rejected or unclear.

First, this section provides an overview of the indicated competitive advantages by the representatives of the SFSC initiatives. They were asked by means of an open question to formulate the competitive advantages of their SFSC initiative which resulted in a list of 133 answers. They had the opportunity to formulate more than one. By a review these were coded and the results are presented in Table 17. The codes could be considered as the differentiating factors representing the competitive advantages of SFSCs according to their representatives.

Table 17: Spontaneously mentioned competitive advantages of SFSC initiatives (N=57).

Competitive advantages	#	%
1) Connection (social)	32	24%
2) Quality	20	15%
3) Geographical proximity	18	14%
4) Convenience	14	11%
5) Environmental sustainability	11	8%
6) Directly from growers	6	5%
7) Transparency	7	5%
8) Unique products	6	5%
9) Support producers	5	4%
10) Economic benefits	6	5%
Other	8	6%
TOTAL	**133**	**100%**

The most frequently mentioned competitive advantages are socially underpinned and refer to the 1) connection between the producer and consumer or buyer. Respondents refer to involvement, direct contact between producers and consumer, adding social capital next to financial capital or loyalty. By means of these socially related factors SFSC initiatives are considered as differentiating compared to other food supply chains. The second mentioned competitive advantage comprises the 2) quality of the products. Most of the initiatives define quality as the freshness of the products. The short time period between harvest and sales provides consumers or buyers with fresh products. Furthermore respondents refer to taste or the artisanal production. Another frequently mentioned advantage relates to 3) geographical proximity, regionalism or locality; the local or regional characteristic of the food supply chain. The initiatives highlight the local produce, bond with the region and the geographical distance between production and consumption. This is interesting as the geographical proximity is not a frequently mentioned driver behind the SFSC initiatives (Table 11). However, our prior results showed us already the importance of geographical proximity (Table 13) when establishing the initiatives. So based on our results the geographical proximity of SFSCs seems to relate to marketing as it is considered as an important competitive advantage.

A fourth identified competitive advantage refers to the 4) convenience of the supply chains with regard to consumers. This refers mostly to home delivery initiatives like web shops or box schemes. In these cases the groceries are delivered at consumer's households, which is according to them very convenient. Though, other initiatives refer to service of their activities and broad assortment. A fifth competitive advantage refers to the 5) environmental sustainability aspects. These are mostly substantiated into biological production and sustainable production methods. These aspects are considered as a competitive advantage compared to conventional practices. Likewise the geographical proximity, environmental sustainability is not considered as an important driver for the majority. However, SFSCs use it to differentiate themselves from other foods and supply chains and hence consider is as an important competitive advantage. A sixth identified differentiating factor refers to the 6) direct delivery from growers, which is only mentioned by initiatives which directly supply to consumers. Respondents indicate the own produce and the fact no intermediaries are involved. Another type of competitive advantage refers to 7) transparency. This is mentioned by for example initiatives which sell own produce or initiatives which emphasize the involvement of known producers or origin of the products (traceability). This transparency is considered as a competitive advantage towards the consumers and not for the involved businesses. Furthermore, respondents refer to the 8) uniqueness of the supply chain as a competitive advantage. This belongs to the category quality as respondents refer to the differentiating characteristics of the food products rather than the quality. For example a retailer refers to this rarity and uniqueness as the involved products are not available elsewhere which is considered as a big competitive advantage. Another advantage which is not directly related to the end-consumer is the 9) support of involved producers. This is for example mentioned by a producer's cooperatives or clubs which sells products via different channels (web shop / farmer's market and retail) which increase the economic viability of their businesses. Lastly, some respondents indicate the 10) economic benefits for the end-consumer or relevant business. Those initiatives refer to the price-quality aspects of the food products or the increased product margin. Lastly, a couple of mentioned competitive advantages could not be categorized and form the group of 'others'.

In sum 10 different and relevant competitive advantages of SFSCs could be derived. Subsequently, Table 18 presents the results and differences among the type of initiators.

Table 18: Mentioned competitive advantages according to the type of SFSC initiator (N=57).

	Supplier (N=19)	Distributor (N=13)	Buyer (N=25)	TOTAL
1) Connection	**9**	**6**	**14**	29
2) Quality	**10**	**6**	4	20
3) Geographical proximity	2	4	**12**	18
4) Convenience	2	3	9	13
5) Environmental sustainability	7	1	3	11
6) Directly from growers	4	1	1	6
7) Transparency	3	2	2	7
8) Unique products	1	1	4	6
9) Support producers	1	3	1	5
10) Economic	3	1	1	5
Other	2	2	4	8

Concerning the suppliers' initiatives, two factors are outstanding. 10 Out of 19 cases consider the quality of the involved products as differentiating, followed by the connection between the producer and consumer (N=9). They seem both the most important competitive advantages of the suppliers' SFSC initiatives. About the distributors' initiatives, also the social related factors are seen as a competitive important advantage (N=6) together with the quality of the food products (N=6). They refer to the advantage of identified producers and buyers and the connection with a certain place of production. The frequency of other mentioned competitive advantages is almost evenly distributed. Concerning the buyers' initiatives they seem to consider the connection between producer and consumers (N=14) and the geographical proximity (N=12) as their most important competitive advantages. This is interesting as their second most important driver refers to quality rather than geographical proximity. So it seems that especially buyers' SFSC initiatives (which do have a direct link with consumers) use the connection with the region, locality and the geographical proximity as a competitive advantage and hence a marketing tool. This brings us to the next section which discusses the geographical proximity of the SFSCs.

4.2.1 Geographical proximity

According to the literature the geographical proximity, being connected to a certain place or region, is one of the main characteristics of SFSCs. From the 57 initiatives, approximately 70% (N=39) indicate to source from or limit their activities to a certain Dutch region. Based on these results, three 3 types of geographical proximity of SFSCs could be derived. The numbers of included initiatives and distinction among the type of initiator are presented in Table 19.

First of all there are initiatives which limit all (or a big majority) activities to a certain region or place (N=30). For example, farmers which sells only their own produce at a farm shop or farmer's market, or a restaurant which includes products from the region, a producers' cooperative which is only active in a specific area or CSA farms. Most of these initiatives refer to a regional identity, e.g. Beemster or Groene Hart. In a few cases explicit a radius of kilometres is used. In this research only the buying clubs are using such a limitation.

The second type refers to initiatives which limit their activities to the Netherlands and not to a specific region. This type is represented by a group of 9 initiatives, comprising home delivery and distributors and farm shops. Respondents refer to the Netherlands as a relatively small country; sourcing from only a certain region is too restrictive. In some cases the sustainable aspect (requirement of the products) or experience of consumers in purchasing food is more important.

The third type of geographical proximity refers to those initiatives which try to source most of their assortment from the region or the Netherlands, but source also a part of the assortment from outside the

country. The assortment is in many cases more important than the Dutch origin of the products. Seasonality plays a role and some products could not be produced in the Netherlands which are important to include in the assortment (e.g. tropical fruits). Concerning this type, a group of 18 initiatives is included which are mostly represented by farmers which sell products at farmer's markets, home delivery services and restaurants.

Table 19: SFSCs' geographical proximity regarding the type of initiator.

	N	Supplier (N=19)	Distributor (N=13)	Buyer (N=25)
Type 1	30	11 (37%)	6 (20%)	13 (43%)
Type 2	9	2 (22%)	4 (44%)	3 (33%)
Type 3	18	6 (33%)	3 (17%)	9 (50%)

After determining these three types of geographical proximity we are interested in whether there are differences or similarities between their drivers. It becomes clear that the most proximate initiatives, those who limit their activities to a certain Dutch region (Type 1), are most unanimous. These seem to be mainly driven by establishing a connection between producer and consumer. Especially compared to the other initiatives; up to 63% (N=19 out of 30) of type 1 initiatives indicated this as their driver compared to 22% (N=2 out of 9) of type 2 initiatives and 28% (N=5 out of 18) of type 3 initiatives. What we also discovered is the importance of social engagement in society (i.e. social orientation discipline) for the most geographical proximate initiatives (type 1) (See Table 20). These initiatives significantly evaluate the social orientation higher than the other initiatives (type 2: U=128, p=0.04 and type 3: U= 362, p=0.05).

Also the economic viability could be seen as an important driver for these most geographical proximate initiatives as 30% of the respondents mentioned this (N=9 out of 30). Though, not so important compared to those initiatives in which the geographical proximity is somehow extended to an international region (Type 3). From these SFSC initiatives 44% (N=8 out of 18) of the respondents indicate the economic viability as a driver compared to 22% (N=2 out of 9) of type 2 initiatives. Next to the economic viability they seem to be driven by the quality of the food products. This is also an important driver for initiatives which limit their activities to national borders (Type 2). In these types of initiatives, 33% indicates quality as driver and only 13% in type 1 initiatives (N=4 out of 30). Concerning the other drivers, no differences between the different types of initiatives could be discovered.

This means that concerning the most important drivers (i.e. economic viability, connection and quality) differences among the geographical proximity of initiatives exists. By conducting a Chi Square test between the driver and types of geographical proximity, significant results could be found for the connection as driver ($\chi^2(1)=4.0$, $p=0.05$). For the other drivers no significant relation with the geographical proximity is noticeable. So, initiatives which are driven by the connection between consumer and producer are likely to limit their activities to a certain Dutch region.

Also we are interested in the relation between geographical proximity and the revenue orientation of SFSCs since this is part of the ambition behind a SFSC initiative (Table 21). These results seem to suggest that the less geographical proximate initiatives (i.e. type 2 and 3) aims to increase their generated revenues to the level of a stable income and growth, as in both cases only 11% indicates cost coverage. Of the more geographical proximate initiatives, 33% (N=10) indicated cost coverage as their revenue orientation. However, no other relations between geographical proximity and the aim of the generated revenues could be found.

Table 20: SFSCs' geographical proximity related to the importance of four differentiating disciplines.

	Type 1 (N=30)		Type 2 (N=9)		Type 3 (N=18)	
	Mean	*Std. dev.*	*Mean*	*Std. dev.*	*Mean*	*Std. dev.*
Geographical proximity	4,2	0,9	3,9	0,9	4,2	0,9
Economic viability	3,0	1,4	2,9	1,4	3,6	1,3
Environmental sustainability	3,6	1,2	3,0	1,2	3,8	1,4
Social orientation	4,4	0,6	3,4	1,5	3,6	1,4

Table 21: SFSCs' geographical proximity related to their revenue orientation.

	Type 1 (N=30)	Type 2 (N=9)	Type 3 (N=18)
Cost coverage (N=13)	10 (33%)	1 (11%)	2 (11%)
Stable income (N=25)	13 (43%)	3 (33%)	9 (50%)
Growth (N=19)	7 (23%)	5 (56%)	7 (39%)

Furthermore, differences between the geographical proximity of the initiatives and their competitive advantages could be noticed. We found that type 1 initiatives consider the connection between producer and consumer mainly as their competitive advantage. This is plausible as it corresponds to their mentioned drivers. Up to 63% (N=19 out of 30) of these initiatives indicated this, especially compared to 22% of the type 2 initiatives and 44% of the type 3 initiatives. For the other type of initiatives no majorities could be discovered concerning competitive advantages. Type 2 initiatives consider the convenience (44%) and quality (33%) as most differentiating, which also seems to correspond to their drivers. Also the largest part of type 3 initiatives considers the connection between producer and consumer as their competitive advantage (44%). This is interesting as our previous results suggest that these initiatives are not driven by establishing a connection, but by economic viability and the quality of food products.

So, the different types of initiatives are undecided about the importance of the competitive advantages as no big majorities could be discovered. Also not about the geographical proximity as competitive advantage which is interesting as we concluded before that in general geographical proximity is considered as an important competitive advantage of the SFSCs (Table 9). So most likely, the geographical proximity as competitive advantage could not be substantiated into the actual geographical proximity of SFSCs. For initiatives limiting their activities to a Dutch region as well as the ones which extend it to international borders, the importance of geographical proximity as competitive advantage seem to be equal (resp. 37% and 33%). So, geographical proximity is an important competitive advantage marketed to the end-consumer, but does not suggest anything about the actual geographical proximity.

4.2.2 Environmental sustainability

Another characteristic found of SFSCs refers to environmental sustainability. As discussed in the literature study, claims are made regarding reduced food miles, lower carbon emissions and sustainable production methods. Hence, we asked respondent to indicate whether their products involve biologically production (and certification) and if they explicit had the aim to reduce the amount of food miles by establishing the initiative (Section 2.2.4). These two variables are discussed below.

- Biological production

Out of 57 SFSC initiatives, in 24 cases (40%) food products are biologically produced. These refer mostly to suppliers' (N=12) and buyers' initiatives (N=10) (See Table 22). From the initiatives which involve biological production, in 19 cases products are certified. Most of these certification schemes refer to the EKO certification and in some cases (N=3) Demeter (representing biological dynamic production) or Milieukeur (N=1) is used. In 4 cases the products are not certified. The representatives address the high

costs for involved suppliers and that certification is not a purpose on itself. These are all buyer's initiated and refer to CSA initiatives and restaurants.

Table 22: The number of biological SFSCs related to the type of initiator.

	N	%
Supplier (N=19)	12	63%
Distributor (N=13)	2	15%
Buyer (N=25)	10	40%

The other 33 initiatives do not include biological production practises and hence concern conventional initiatives. Though, some of these respondents indicate that involved products could be biologically produced, but they do not have a particularly focus on biologically production. Other requirements, such as the connection between chain partners or the quality of the products are determinant. This is especially true for distributors' initiatives and restaurants.

Subsequently, we investigated whether there are differences between the mentioned drivers and value propositions between initiatives which involve biological production and which not. As the number of biological cases is not evenly distributed over the type of initiator (Table 22), only a distinction between biological initiatives and conventional ones could provide unrepresentative results. Can differences be explained because initiatives involve biological production or because of their type of initiator? For that reason the suppliers' and buyers' initiatives are divided into biological and conventional to investigate whether there are differences. The distributors' initiatives are not taken into account because of the number (N=2) and the diversity between these.

It is noticeable that all initiatives which indicate environmental sustainability as one of their driver involve biological production (N=6). Hence, these two variables inherently correspond to each other. Also a Chi Square test provides significant results about the environmental sustainability as driver and biological production ($X^2(1)=9.2$, $p=0.002$). By a further analysis it becomes clear that biological initiatives find environmental sustainability more important discipline (mean of 4.2) when establishing the initiatives compared to the conventional ones (mean of 4.0) ($U=246.5$, $p<0.01$). Likewise the geographical proximity is evaluated as more important by the biological initiatives (mean of 4.2) compared to the conventional ones (mean of 3.9) ($U=275.5$, $p=0.03$). This is supported by the fact that 5 out of the 6 initiatives which are driven by environmental sustainability are all initiatives which limit their activities to a certain Dutch region (type 1 concerning their geographical proximity). However, relatively more biological initiatives extend their geographical proximity to international borders (N=12, 50%), compared to conventional ones (N=6, 18%). This holds because not all biological initiatives are driven by environmental sustainability, but as discussed before, the quality of products are also important. Also the Chi Square about the relation between the actual geographical of SFSC and whether biological production is involved is significant ($X^2(1)=8.4$, $p=0.02$). To conclude, biological SFSCs are less geographical proximate compared to conventional ones. Among the revenue orientation of the initiatives, no clear differences between the biological and conventional initiatives could be noticed.

Table 23: SFSCs' mode of production (whether or not biological) related to the importance of dour differentiating disciplines.

	Biological production (N=24)		No biological production (N=33)	
	Mean	Std. dev.	Mean	Std. dev.
Geographical proximity	4,2	0,8	4,0	1,0
Economic viability	3,9	1,6	3,9	1,6
Environmental sustainability	4,2	1,3	3,9	1,3
Social orientation	4,1	1,2	4,1	1,1

The biological initiatives differ from conventional ones with respect to the quality driver. Explicitly, 17% of the biological suppliers' initiatives mentioned quality as a driver compared to 0% for the conventional cases. Concerning the buyer's initiatives, 40% of the biological cases refer to quality and 33% of the conventional cases. Concerning the buyers' initiatives, for the conventional ones the economic viability seems to be a more important driver compared to the biological ones (resp. 20% versus 0%). Concerning the other drivers the differences between biological and conventional are rather small. So, based on these results we can conclude that biological initiatives are more driven by environmental sustainability and quality of the food products compared to conventional ones.

Concerning the competitive advantages, there is not a clear difference between the two groups for most addressed factors. Except for the environmental sustainability; for biological initiatives the environment sustainability is a more important differentiating factor compared to the conventional ones; from the suppliers' initiatives resp. 42% and 29% and from the buyers' initiatives resp. 30% and 0% indicated is as competitive advantage. Also the Chi Square suggests a significant association, $X^2(1)=8.8$, $p=0.003$. Furthermore, for the biological suppliers' initiatives the fact that products are sourced directly from the growers is a more important competitive advantage compared to the conventional initiatives (resp. 33% and 0%).

- Food miles

Another issue which is part of the environmental sustainability of SFSCs is the explicit aim to reduce the amount of food miles while establishing the SFSC initiative. A minority of the included initiatives (33% N=19) answered this question positively and indicated such an objective. From these initiatives a majority (63% N=12) involves biological production. By asking the respondents how they deal with food miles and a reduction is realized, many times they refer to their sourcing policy. Their aim and strategy is to source as much from the nearby region instead of importing products from outside the country. Some take into account seasonality and only include products which are available during the season. Other respondents refer to a limited distribution area to reduce the amount of food miles. For example, in a CSA initiative the consumers should be situated at cycle distance from the production place. Not only SFSC initiatives which limit their activities to a certain Dutch region indicate a goal to reduce food miles, also initiatives which do have activities abroad do mention this aim. The latter ones refer all to their sourcing strategy; however, the completeness of the assortment is their top priority, not the amount of food miles.

Even though, respondents are not asked about reasons behind or explanations in case they do not have an explicit attempt to reduce the amount of food miles, some respondents provide useful information. For example, some address that this phenomenon is something from the last years and at the time they started their business this was not an issue at all. Other mentioned the contradictory of the food miles and the low loading capacity of the vehicles, which could counter effect the short distances.

To investigate whether there are differences between initiatives which aim to reduce the amount of food miles and those who do not, their drivers, revenue orientations, competitive advantages and geographical proximity are compared. These results suggest that SFSCs which attempt to reduce the amount of food

miles seem not to be driven by economic viability. In only 2 cases this is mentioned (11%) compared to 17 (45%) initiatives which do not have this aim. This is supported by the fact that for initiatives which aim to reduce food miles significantly evaluate the importance of the economic viability of the business while starting the SFSC lower (U=261, p=0.05). However, the support to producers seems to be an important driver as 42% of the initiatives indicates this (N=8), compared to 16% of the other initiatives (N=6). The same holds for environmental sustainability which is a more important driver for the initiatives aiming at a reduced amount of food miles (21% versus 5%). Also this could be supported by the fact that initiatives aiming at a reduced amount of food miles statistically evaluate the importance of environmental sustainability higher while establishing the SFSC compared to those initiative which do not (U=20., p=0.01). However, only the relation between on the one hand the economic viability or support for producers as driver and whether or not having the aim to reduce food miles provides significant results, respectively $X^2(1)=6.7$, p=0.01 and $X^2(1)=4.7$, p=0.03.

As we link these results to the revenue orientation, we could discover small differences between the two groups. SFSCs aiming at a reduced amount of food miles seem to either have a cost coverage (32%) or growth (47%) orientation. This corresponds to some extent to their indicated drivers. As we determined in the previous section (4.1.3) the relation between the support to producers as driver and growth as revenue orientation.

The identified competitive advantages of initiatives aiming at a reduced amount of food miles differ from those who do not have this aim. For the first ones, the geographical proximity is the most important competitive advantage; up to 53% of the initiatives indicate this compared to 21% of the latter ones ($X^2(1)=5.8$, p=0.02). However, no relation between the attempt to reduce the amount of food miles and the actual geographical proximity of the SFSCs could be found ($X^2(1)=0.75$, p=0.69). Also these results suggest that the geographical proximity as competitive advantage is not related to the actual geographical proximity of SFSCs. Also the convenience for the end consumer is considered as an important competitive advantage as 42% of the initiatives indicate this compared to 13% of the other ones ($X^2(1)=6.0$, p=0.01).

4.2.3 Producer–consumer relationship

A characteristic widely considered as differentiating compared to industrialized chains concerns the connections and associations of food consumption related to the production place and process of food products (Renting et al., 2003). How these connections are made and information about the place of production is communicated differs among cases. Derived from a social perspective, the producer-consumer relationship in SFSCs could be classified into three types of relations; a face to face interaction, a proximate interaction and an extended interaction (Section 2.2.3). In a SFSC characterized by a face to face interaction, the direct interaction between producer and consumer generates the means to communicate. In proximate relationships this direct communication could be replaced by references of producers and intermediates which guarantee the producer's identity. In extended interactions, communication will be done by means of labels and/or certificates. Table 24 below presents the results concerning the included SFSC initiatives.

Table 24: The type of producer-consumer interaction of SFSC s

	Total (N=57)	Supplier (N=19)	Distributor (N=13)	Buyer (N=25)
Face to face	18	16	0	2
Proximate via intermediaries	34	3	11	20
Extended via labels	5	0	2	3

These results suggest that a face to face interaction (N=18) is characterized by suppliers' initiative (N=16) ($X^2(2)=32.8$, p=0) (i.e. farm shops, farmers' markets and CSA practises). The producers of the food

products interact directly with the end consumers. The two buyer's initiatives including this type of interaction do involve CSA practises which are both initiated by a group of consumers. A few suppliers' cases do not involve a face to face interaction, but a proximate interaction. In these cases the chain initiator function rather as an intermediary between other suppliers and consumers as almost no own produce is (or only a really small part) involved (N=3). In these cases the supplier acts essentially as intermediates which guarantee the other suppliers' identity. For example, this is the case for a home delivery service and farmers' market.

The most important drivers behind these type of initiatives refer to the connection between producer and consumer (N=14, 78%) and economic viability (N=11, 61%). This is understandable as most of these initiatives are initiated by suppliers and correspond to the results in Table 12. Moreover, by establishing the face to face initiatives economic viability is considered as important (mean of 3.7). This is significantly higher compared to the initiatives including a proximate interaction (mean of 2.8) (U=587.5, p=0.02). The Chi Square of the association between economic viability as driver and a type of consumer interaction is highly significant, $X^2(2)=23.8$, p=0. No remarkable results concerning the revenue orientation could be found, which means that most of the face to face initiatives (50%) aim at a stable income (N=9), followed by growth (N=5) and cost coverage (N=4). Furthermore, it is noticeable that a majority of 72% (N=13) of the face to face initiatives limit their activities to a particular Dutch region, which refers to the first type of the geographical proximity categories discussed in section 4.2.1. Though, no significant result could be found about the relation between the actual geographical proximity and the type of producer-consumer interaction ($X^2(4)=6.5$, p=0.16).

Also the considered competitive advantages of the initiatives involving a face to face interaction correspond to the ones indicated by suppliers. 11 Initiatives consider the connection between producer and consumer as differentiating (61%) and 8 initiatives mention quality (44%) as their competitive advantage. Furthermore, the environmental sustainability is considered as an important differentiating factor (39%). From the 7 initiatives which are initiated by suppliers and consider environmental sustainability as a competitive advantage 6 involve a face to face interaction between producer and consumer. Also, 60% (N=11) of the face to face initiatives involve biological production.

The majority (N=34) of all included SFSC initiatives involves a proximate producer-consumer interaction. Via intermediaries who guarantee the producers identity and communicate the origin of products, producers and consumer are able to interact. The majority of them are buyers' initiatives (N=20). Those initiatives for example involve *restaurants* which include regional products in their menus. They act as an intermediate and aim to communicate the identity behind the food products to their consumers. Also buyer's initiated web shops belongs to this type of interaction. For example the products at the web shops include a clear reference to the producer and place of production which is easily accessible for the consumers. Likewise, buying clubs, buyer initiated farm shops and some retailers involve this type of interaction. Also distributors' initiatives include a proximate type of producer-consumer interaction (N=11). These SFSC initiatives do not have a direct link to consumers or are organized by a group of producers act as intermediaries and actively attempt to preserve the identity behind the products. They try to make products with a regional identity easily accessible for the end-consumer.

In the literature study it is discussed that in proximate initiatives products are produced and distributed in a specific region and consumers are made aware of the 'local' nature (Marsden et al., 2000). When we relate this to our results seem confirm. The connection between producer and consumer is considered as one of their main drivers (N=14, 41%) and most frequently mentioned as competitive advantage (N=17, 50%). However, the driver related to the support for producers (N=13, 38%) seems to significantly relate

to a proximate producer-consumer interaction ($X^2(1)=9.2$, $p=0.005$). The support for producers is not considered as an important competitive advantage (N=4, 12%), in contrast to the geographical proximity is seen as an important differentiating factor by up to 16 (47%) initiatives involving this type of interaction. Furthermore respondents refer to convenience (N=12, 35%) and quality (N=10, 29%) regarding their competitive advantages.

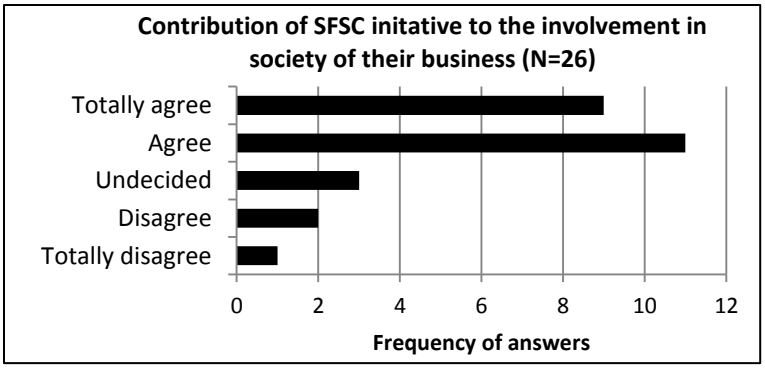
The extended type of interaction is comprised by buyers as well as distributors and in our research not many initiatives do have this type of interaction (N=5). As discussed in the literature study the available information about the production place and process plays an important role. This is also reflected in our results as these initiatives consider the quality and the uniqueness of the products as their most important competitive advantages rather than the connection between producer and consumer. The mentioned drivers are too divers to draw conclusions. However, we can conclude, that the main purpose of these initiatives is not to connect producer and consumer but to provide quality products, transparency and differentiate artisan products from mainstream ones.

This categorization teaches us different interaction possibilities between consumer and producer within the SFSCs. In these interactions the identity preservation from production place to market is very important. By asking the respondents by means of a Likert scale question to indicate the importance of the communication of the identity and territory of the food products, all consider it as very important.

4.2.4 Community–network interaction

Next to the producer-consumer interaction the literature study focussed on the network interaction of SFSC initiatives. By using the concept of social capital, the contribution of SFSC and community building efforts of involved business are investigated. A distinction is made between two functions of social capital proposed by Putnam 2002 (Rydin and Holman, 2004). The first one refers to bonding or integration; bringing a group with similar values closer together. The second one refers to bridging; connecting the members of a community with external members and organizations (Glowacki-Dudka et al., 2012). These insights are used to investigate the contribution of SFSC initiatives to businesses' social capital and whether or not businesses involved in SFSC initiatives engage in community building activities to strengthen the current network or to attract others outside the network (or in other words the customer base).

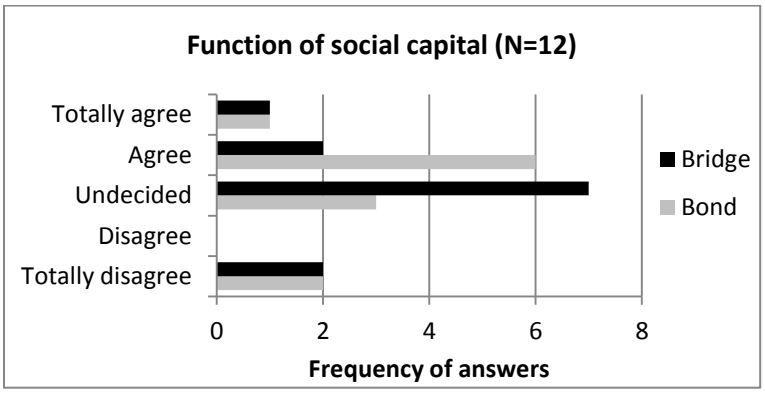
First a distinction is made between initiatives SFSC initiatives which are part of a wider business and SFSCs which comprises the entire business. This research includes 26 initiatives which are part of a wider business, for example farm shops, participation at a farmer's market or regional products in a supermarket. Respondents were asked by means of a Likert scale question to indicate to what extend they agreed whether the SFSC initiative contributed to their involvement in society and reputation of their business (i.e. social capital). The results of the provided answers are presented in Figure 12. Based on these, we could conclude that the SFSC initiatives contribute to the involvement in society of the businesses. Up to 20 representatives (77%) indicate to degree with the statement, compared to 3 (12%) cases which indicated to disagree.



N=26	
Mean	4.0
Std. dev.	1,1
Response %	
Agree	77%
Undecided	12%
Disagree	12%

Figure 12: Extent to which SFSC initiatives contribute to involvement in society.

Furthermore, we investigated whether SFSCs tend to bond (strengthen) or bridge (widen) initiators' community network (customer base). For this purpose, a further distinction is made regarding their targeted customers. Hence, we distinct initiatives which are part of a wider business but target other type of customers (N=14). For example on-farm shops, farms which started to sell at farmer's markets or via home delivery services, belong to this category. The second type of SFSCs comprises initiatives which are part of a wider business and target the same type of customers (i.e. household consumers) (N=12). These include for example retailers or distributors who started a SFSC initiative next to their core business. As the latter ones focusses on the same customers, we asked their representatives to indicate to what extent the initiative bond or bridge their customer base. These results are presented in Figure 13.



N=12	Bond	Bridge
Mean	3,3	3,0
Std. dev.	1,2	1,1
Response %		
Agree	58%	25%
Undecided	25%	58%
Disagree	17%	17%

Figure 13: The function of social capital of SFSC s which are part of a wider business and target the same type of customers.

Based on the figures we can conclude that the SFSC initiatives of these businesses tend to strengthen the customer base compared to widen the network. 58% agrees with the statement concerning the bonding function compared to 25% regarding the bridging function. About the bridging function, the majority of the representatives were undecided about the contribution of the SFSC initiative (58%). This rather small difference between these two function could not be statistically confirmed (U=54, p=0,15).

Furthermore, it is investigated whether or not businesses involved in SFSC initiatives engage in community building activities. In case they do, we investigated whether these activities strengthen the current network and/or attract others outside the network (or in other words the customer base). It turns out that halve of all SFSC initiatives deploys community building activities (30 out of the 57 initiatives), which is evenly divided over the different type of initiators (Table 25). Respondents indicate that the difference between deploying activities for commercial ends and societal ends is rather small. For example, they refer to participation at a regional market or sponsorship. According to the respondents

their community building efforts mostly concern the facilitation of specific activities and events such as workshops, excursions, hiking routes or school visits.

Table 25: Number of SFSC initiatives deploying community building activities.

	N
Supplier (N=19)	11
Distributor (N=13)	6
Buyer (N=25)	13

The initiatives which took part in these community building activities seem to have divided thoughts about the social functions. The representatives were asked by means of a Likert scale question to indicate to what extend they agreed whether and how these activities contributed to the involvement in society and reputation of their business. The results are presented in Table 26. On average the respondents indicate to agree with both functions. 60% seems to agree with the bonding function compared to 20% which disagreed. Regarding the bridging function, 43% agreed versus 23% which disagreed. This corresponds to the results of Figure 4 in which the social capital function of the SFSCs it selves are investigated. Based on these results it is difficult to draw plausible conclusions about the social implications of the community building activities. The representatives are divided about the social involvements.

Table 26: Frequency of answers regarding the social function of community building activities

		N	Mean	Std dev.	Response %		
					Agree	Undecided	Disagree
Average	Bond	30	3,5	1,3	60%	20%	20%
	Bridge	30	3,3	1,3	43%	33%	23%
Suppliers	Bond	11	3,5	1,2	55%	27%	18%
	Bridge	11	3,1	1, 2	27%	45%	27%
Distributors	Bond	6	3,5	1,4	67%	17%	17%
	Bridge	6	3,2	1,3	33%	50%	17%
Buyer	Bond	13	3,5	1,5	62%	15%	23%
	Bridge	13	3,5	1,5	62%	15%	23%

In sum, it can be concluded that SFSC are considered as a contribution towards the reputation and involvement in society of the involved businesses. About the function of this contribution towards the social capital (i.e. bridging or bonding) the representatives are less decisive. Our results suggest that these SFSC initiatives tend to function in favour of the bonding function (strengthen the customer base) according to 58% of the SFSCs initiatives (N=12). The majority of respondents (58%) were undecided about bridging function. Furthermore, on average half of the initiatives organize community building activities. About the social involvements respondents had difficulties to indicate to what extent these activities contributed and their social function.

4.2.5 Conclusion

The value proposition comprises the competitive advantages of the SFSC, or in other words the differentiating factors. Presented by the theoretical framework the value proposition comprises a) the product characteristics which in this research are referred to geographical proximity and environmental sustainability and the customer relationship which concerns the consumer-producer relationship and community network interaction. Before analysing these differentiating factors, the competitive advantages of the SFSCs were investigated by means of an open question. 10 Relevant differentiating factors are discovered. The most important factors are the connection between consumer and producer (N=29), quality of the food products (N=20) and geographical proximity (N=18). This is interesting as

geographical proximity is not an important driver behind the initiatives (section 4.1.1) and remarkably it does not suggest anything about the actual proximity (section 4.2.1). Accordingly, we suppose that geographical proximity is likely to be used for marketing purposes regarding the end-consumer.

By analysing the actual geographical proximity of the SFSCs as part of the value proposition of SFSCs, 3 different types are determined. The most geographical proximate initiatives (Type 1, N=30), those who limit the activities to a certain Dutch region specify this by the regional identity (e.g. Groene Hart or Beemster). They seem to be mostly driven by the connection between producer and consumer. For the other types of geographical proximity no relation with the drivers behind the initiatives could be found. These involve initiatives which limit their activities to the Netherlands and not to a specific region (Type 2, N=9). The third type involves initiatives which widen their geographical proximity as they try to source most of their assortment from the region or the Netherlands, but source also a part of the assortment from outside the country (Type 3, N=18).

Next to the geographical proximity, SFSC could have a competitive advantage referring to their environmental sustainability. In 40% (N=24) of the initiatives products are produced biologically and in 33% of the initiatives (N=19) the chain initiator indicated to have the explicit aim to reduce the number of food miles. By investigating the relation between the actual geographical proximity and the environmental sustainability, we can conclude that biological SFSCs are less geographical proximate compared to conventional ones ($X^2(1)=8.4$, $p=0.02$). Furthermore, no significant relation between the attempt to reduce the amount of food miles and the actual geographical proximity could be found ($X^2(1)=0.75$, $p=0.69$).

All initiatives which are driven by environmental sustainability involve biological production (N=6). Also it could be confirmed that for biological initiatives the environmental sustainability is significantly more important as competitive advantage compared to the conventional initiatives ($X^2(1)=8.8$, $p=0.003$). SFSC initiatives attempting to reduce the number of food miles are not driven by economic viability ($X^2(1)=6.7$, $p=0.01$). This means that SFSCs which are driven by economic viability do not have the attempt to reduce the amount of food miles, in contrast to initiatives driven by the support for producers ($X^2(1)=4.7$, $p=0.03$). Hence, producers supported initiatives could be linked with the attempt to reduce the amount of food miles.

Concerning the customer relation of SFSCs, the majority (N=34) involves a proximate producer-consumer interaction, followed by a face to face interaction (N=18). For SFSCs involving a face to face interaction the economic viability is an important driver $X^2(2)=23.8$, $p=0$). Initiatives driven by the support for producers seems to significantly involve a proximate interaction ($X^2(1)=9.2$, $p=0.005$). Furthermore, from the face to face initiatives 72% (N=13) limit their activities to a particular Dutch region, however no significant results could be found concerning the relation between geographical proximity and the producer-consumer interaction. Also, there seems no relation between the environmental sustainability of the SFSCs and the type of producer-consumer interaction.

About the community network interaction, SFSC initiatives are by a majority (77% N=26) considered as a contribution to the reputation and involvement in society of the involved businesses. About the function of this contribution (i.e. social capital) whether it bonds or bridges, the representatives are less decisive. Furthermore, on average half of the initiatives organize community building activities. About the social involvements respondents had difficulties to indicate to what extent these activities contributed and their social function.

After discussing the ambition and value proposition of SFSCs, we can assess whether or not the first proposition is true.

P 1 The ambition behind SFSC initiatives comprised by the driver and revenue orientation influences the value proposition of the SFSC initiatives comprised by the product characteristics and customer relation.

The results concerning the different variables and whether or not they are related are presented in **Error! Reference source not found.**Figure 14. As we proposed that the ambition behind the initiatives influences the value proposition, only half of the table is filled in. The green blocks suggest a relation between two variables and shaded blocks represents no relation between the variables. The area inside the thick red borders represents the value proposition.

Based on these results we conclude that the ambition behind a SFSC indeed relate to some extend to the value propositions of SFSCs. This is confirmed and specified by number 1, 2 and 3. However, from the two variables comprising the ambition, only the drivers behind an initiative are definitely related to the product characteristics and customer relation. The revenue orientation though, provides no significant results and only seems to relate to the drivers.

1 Initiatives driven by the connection between producer and consumer are likely to limit most of their activities to a specific Dutch area (Type 1, section 4.2.1) ($\chi^2(1)=4.0$, p=0.05).
2 Initiatives driven by environmental sustainability involve all biological production (N=6) ($\chi^2(1)=9.2$, p=0), though not the other way around. This shows the influence of the ambition behind the initiative on the developed value proposition.
Furthermore, initiatives driven by economic viability are not likely to reduce the amount of food miles ($\chi^2(1)=6.7$, p=0.01) in contrast to initiatives which are driven by the support to producers ($\chi^2(1)=4.7$, p=0.03).
3 Initiatives driven by economic viability are likely to involve a face to face producer-consumer interaction ($\chi^2(2)=23.8$, p=0). Initiatives driven by the support for producers seems to significantly involve a proximate interaction ($X^2(1)=9.2$, p=0.005).

However, not only relations between the different constructs (i.e. ambition and value proposition) are found; the variables comprising the constructs also seem to be interrelated. This is confirmed by a, b and c. Furthermore, the type of chain initiator seems to be related to the ambition and value proposition (d and e).

a) SFSC initiatives driven by establishing a connection between producer and consumer indicate their revenue orientation as cost coverage ($\chi^2(1)=11.2$, p=0.004). Initiatives driven by the aim to increase their economic viability are likely to have a revenue orientation other than covering the cost ($\chi^2(1)=6.3$, p=0.04).
b) As part of the environmental sustainability, biological initiatives are likely to have a wide geographical proximity ($\chi^2(1)=8.4$, p=0.02) compared to conventional ones.
No significant relation could be found between the attempt to reduce food miles and the actual geographical proximity as value proposition
c) As part of the producer-consumer interaction, 72% (N=13) of the initiatives involving a face to face interaction limit their activities to a particular Dutch region. However no significant results could be found.

d) Supplier initiated SFSCs are mostly driven by the economic viability ($\chi^2(2)=33,75$, p=0). The most important driver for distributor initiators is the support for producers (N=7 out of 13) and concerning buyers' initiatives the connection between producer and consumer (N=12 out of 25) and quality of the products are important drivers (N=9). This could not be significantly confirmed.

e) Supplier initiated SFSCs predominantly involve a face to face interaction ($\chi^2(2)=32.8$, p=0).

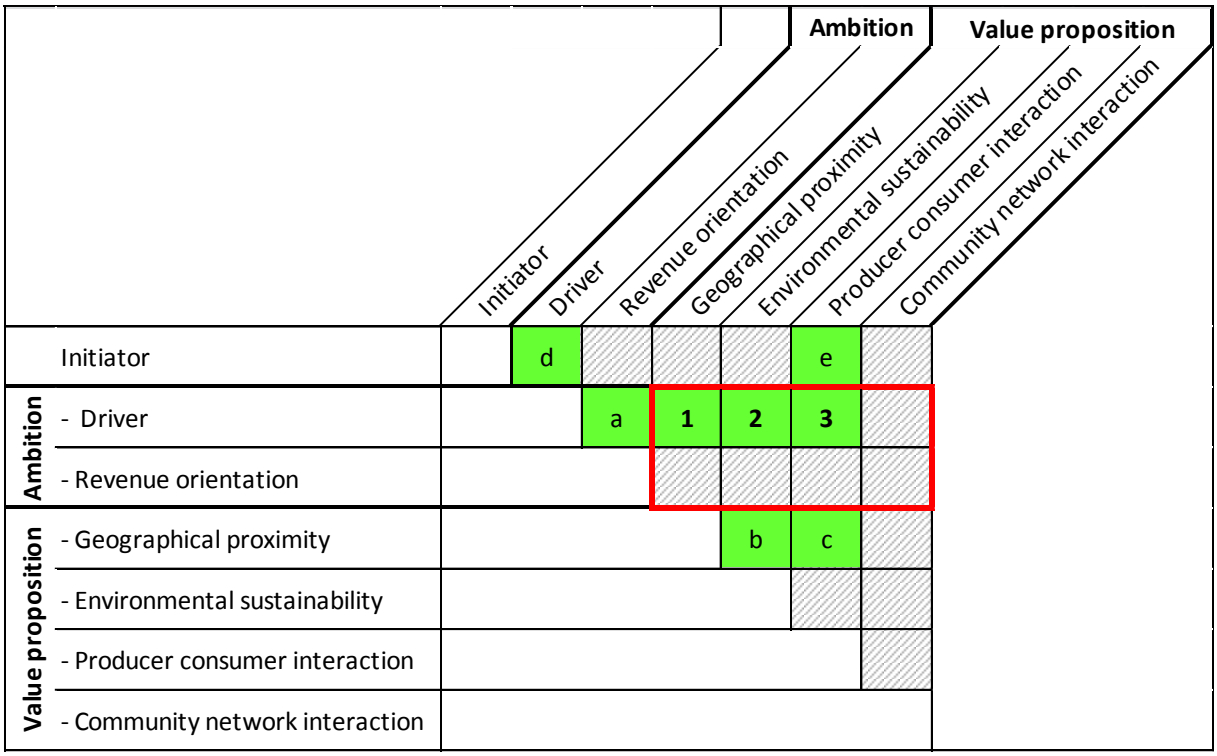


Figure 14: Conclusions regarding proposition 1.

4.3 Value creation

After discussing the different components of the ambitions behind SFSC initiatives and their value propositions, this section focusses on value creation of SFSCs. It details the value creation process which is considered as the arrangements of activities necessary to create value for the consumer (in other words the organization and structure). Theories concerned with the collaboration strategy, governance structure and coordination mechanisms are fundamentally used to obtain a better understanding of the structural organization of SFSCs. First, section 4.3.1 discusses different chain partners in the SFSCs, followed by insights in the collaboration strategy in section 4.3.2, the governance structure (section 4.3.3) and coordination mechanisms (section 4.3.4). Lastly section 4.3.5 provides conclusions concerning the value creation of SFSCs and discusses whether the second proposition is supported, rejected or unclear.

4.3.1 Chain partners

Concerning supply chain collaboration the SFSC initiator has the lead, which in this research is categorized as supplier, distributor or buyer. The suppliers' initiatives are initiated by one supplier which is a self-producing business (i.e. farms) and hence could also be considered as direct-to consumer SFSC initiatives. In distributors' and buyers' initiatives the SFSC initiator is not a supplier. However, they could be initiated by a group of suppliers, for example in case of a producers' cooperative. Hence, the distributors' and buyers' initiatives could be considered as intermediate SFSCs. In both cases the involved chain parties could be other businesses or consumers. Depending of the level of participation, consumers are seen as a

collaborative party, or not. To provide more insight in the type of chain partners of the different SFSCs, the representatives of the chain initiators were asked to indicate their most important chain partners. During the interviews, respondents had difficulties by defining their most important chain parties as in a certain manner the different partners were all important. However, after a review of the provided answers we could derive different types of important partners for the SFSC initiatives.

For most SFSC initiatives the surrounded farmers are the most important chain partners. In 37 initiatives the representatives indicate to collaborate with nearby farmers. However, there are some exceptions to this rule, which brings us to a second type of chain partner. For many initiatives also the wholesaler is an important partner. To illustrate, from these 37 initiatives in 20 cases also the wholesaler is important to source from. Initiators have to deal with, for example, the availability of the products. Furthermore, including many different chain partners could become costly and time-consuming. For instance one respondent mentioned to source from the wholesaler as particular products and tropical fruits could not be sourced from surrounding producers. In their opinion they should meet this consumer demand and include this kind or products in their assortment. Another respondent adds that it saves costs and time by sourcing from wholesalers instead of sourcing it from different suppliers. Wholesalers have a broad assortment from which products can be selected to compose and/or supplement the initiatives' own assortment. The further discussion about the chain partners in the SFSC initiatives is done according to the different type of initiators.

In the majority of the suppliers' initiatives (10 out of 19) the chain initiator collaborates with nearby farmers to supplement their assortment with products which they sell directly to the end-consumers. For example, this is the case in farm shops, farmers' markets or home delivery services. Next to own produce, the suppliers source from nearby farmers to complement their assortment available for consumers. From this group, in 6 initiatives also the wholesaler is indicated as an important chain partner. In 3 initiatives, the supplier initiator collaborates only with the wholesaler and not with nearby farmers at all. This is because of the reason discussed above. Furthermore, in 2 cases no other partners are involved as the initiative only includes own produce from the farmer. This is the case for two growers which sell their own products at a nearby farmers' market. 4 Suppliers' initiatives involve CSA practices in which consumers are the only other partners. Depending of the level of participation, consumers are seen as a collaborative party or not. By asking the representatives whether or not consumers participate in decision making processes concerning the business, differences became clear. Accordingly, in 2 SFSC initiatives consumers have the rights to influence the strategy of the initiative and are hence considered as a collaborating partner.

Concerning distributor's initiatives (N=13), the initiator could involve a single distributing business or a group of suppliers which established a SFSC initiative. The latter group comprises 5 initiatives which in some cases do not require other partners to supplement their assortment. Accordingly, 3 Initiatives sources all the products from the involved producers. Buying partners as retailers or nursery homes are then the most important partners, next to the direct deliveries to the end-consumer. In the other 2 cases the assortment is still supplemented with products which could not be produced by the involved producers. Hence, other surrounding farmers or wholesalers are also important partners. For the other 8 distributors' SFSCs, in which the chain initiator concerns a single distributor, nearby suppliers (i.e. farmers) are crucial partners. However, in 4 initiatives the nearby suppliers could be considered as regional Dutch suppliers as those initiatives are active in the entire country (i.e. not only in one certain area).

From the 25 buyers' initiatives, 17 indicate nearby suppliers as an important chain partner. From these, in 11 initiatives also the wholesaler is an important chain partner. Furthermore, in some buyers' SFSCs

(N=6), the initiator collaborates only with one partner. This is the case for the majority of retail SFSC initiatives (N=4). The particular collaborating partner could for example be a producer cooperative or a regional distributor. In certain buyers' initiatives consumer could also be considered as an important chain partner (next to supplying partners). This is the case in consumers' cooperatives, buying clubs or buyers' initiated CSA initiatives; in total these concern 7 initiatives (i.e. 2 consumers' cooperatives, CSA initiatives and 3 consumer buying clubs). 4 Of these initiatives are organized in such a way the involved consumers has the rights to influence the strategy likewise the other 2 CSA supplier's initiatives. In all these 6 cases consumers are actually members of the initiative and can participate in the decision making via their members vote in general member meetings.

So, to create value the majority of SFSC initiators collaborate with other chain partners. Regardless the type of chain initiator, in most initiatives (N=37) an important chain partner concern nearby suppliers. Though from these, 20 initiatives also indicate wholesalers as important party. According to representatives this reduces the number of chain partner and increases the availability of products. 3 Initiatives indicate only a wholesaler as partner. Furthermore, in 6 buyers' initiatives the initiator collaborates with only one partner, which concerns either a producers' cooperative or regional distributor. Moreover, in 6 initiatives consumers can be considered as collaborating partners as the have formal rights to influence the initiative.

By a further analysis, the type of initiator seems to relate to the geographical proximity of the SFSCs. The SFSC initiators collaborating with nearby farmers or consumers, are all initiatives which restrict their activities to a certain Dutch region and hence the most geographical proximate initiatives (considered as Type 1, section 4.2.1). From the initiatives collaborating with a wholesaler, 75% extend to some degree its geographical proximity beyond national borders. So, the type of chain partner seems to relate to the geographical proximity of initiatives. Furthermore, we found that in biological initiatives (N=24), only 4 chain initiators collaborates only with regional farmers (e.g. a farmer's market, restaurant) and in 13 cases also wholesalers are involved. Compared to the conventional ones, the initiatives including only nearby farmers is rather small (17% versus 39%). Hence, biological initiatives collaborate to a greater extent with wholesalers (54% versus 30%) and extend their geographical proximity. Also it is remarkable that 5 from the 6 initiatives in which consumer have formally influence on the business' strategy, involve biological production. Concerning the type of chain partner and the producer-consumer interaction, no interesting differences could be found. Hence we can conclude that the type of producer-consumer interaction relates not to the indicated chain partners of the SFSC chain initiators. After discussing the chain partners of the SFSC initiators, the paper now turns to discuss the collaboration strategy of SFSC.

4.3.2 Collaboration strategy

Literature shows us the importance of collaboration and cooperation between chain partners in order to successfully enter the market. Supply chain collaboration involves chain members which are actively working together to create competitive advantage and satisfy customers' needs (Matopoulos et al., 2007, Mentzer et al., 2000), which is represented by a collaboration strategy. This section investigates whether the SFSC initiatives have such a collaborative strategy.

In a majority of the initiatives no collaboration strategy is established. From the 57 cases, in 19 (33%) initiatives involved parties do have a collaboration strategy. By a closer look we could find some similarities among the initiatives having a collaboration strategy. First of all it is remarkable that all larger companies, which incorporated a SFSC initiative into their business, belong to these 19 initiatives. Examples are retailers and (foodservice) distributors; they do not have room for ad hoc decisions which force them to develop a strategy with their partners. Second, initiatives in which the chain initiator

comprises more than one party (e.g. producers' cooperatives, other types of collaboration structures and CSA) have a collaboration strategy. In these cases a strategy is developed about how the involved parties should collaborate and how the market should be entered.

Whether or not the initiatives have a collaboration strategy, the orientation of cooperation could vary from strategic to operational cooperation (Mentzer et al., 2000). Operational cooperation involves a short term relationship and comprises the optimization of operational efficiency and effectiveness. Strategic cooperation in contrast is an on-going, long term inter-firm relationship. It aims at increasing customer value and enhances the competitive position of firms. By means of Likert scale questions respondents were asked to indicate to what extent they agreed about statements concerning the type of cooperation; operational or strategically. The results are presented in Table 27 and provide us insights in the so called 'depth' of the cooperation. The results suggest that a big majority of all the initiatives indicate their collaboration as strategic. On average, up to 89% agreed with the statement suggesting a strategic cooperation orientation, compared to 9% meant for operational cooperation. So based on these results, long term intentions and relationships between involved partners seem to be very important in the SFSCs. Only 4 cases indicate to cooperate just operationally with their partners and not strategically at all. 3 of these initiatives indicate wholesalers as their most important chain partner (e.g. in case of farm shops, farmer's market and home delivery; all initiated by suppliers). Based on this, we could say that SFSCs initiatives in which the chain initiator does only business with wholesalers are likely to cooperate on an operational base.

Furthermore, we are interested in whether there are differences in the type of cooperation between initiatives which do have a collaboration strategy and those who have not. By a look at **Error! Reference source not found.**Table 27 it could be seen that there is actually not a big difference between these two groups. However, the initiatives with a collaboration strategy all agreed to cooperate strategically (100%) and none of them agreed to cooperate operationally (0%). Hence, we could conclude that involved partners of SFSC initiatives which do have a collaboration strategy are likely to cooperate strategically.

Table 27: The type of cooperation in SFSCs.

	Operational (N = 55)	Strategic (N = 55)	Collaboration strategy (N = 19)		No collaboration strategy (N= 36)	
			Operational	Strategic	Operational	Strategic
Agree	5 (9%)	49 (89%)	0	19 (100%)	5 (14%)	30 (83%)
Undecided	6 (11%)	2 (4%)	3 (16%)	0	3 (8%)	2 (6%)
Disagree	44 (80%)	4 (7%)	16 (84%)	0	28 (78%)	4(11%)

Furthermore we are interested in the question if whether or not having a collaboration strategy could be influenced by other variables? By an investigation we could not find any relation between the variables such as the product characteristics (the geographical proximity and environmental sustainability) or customer relationship.

4.3.3 Governance structure

Regardless the operational or strategic cooperation between chain partners, the interests of both still need to be aligned, which requires clear governance. Herewith, the governance structure provides insights in the formalization of cooperation between involved parties. Derived from transaction cost economics, the governance structure varies along a continuum with the market on the one hand and the integrated firm on the other (section 2.2.1) . In this research the most predominant governance structures are taken into account; the market, contracts, relation-based alliance, equity-based alliance. In addition, respondents had the opportunity to indicate other forms of governing their activities.

Following the continuum, on the one hand transactions are organized using the market. In these cases there is no alignment between partners except the price and both parties are not required to make specific investments and long-run relations are not ensured. Further to the other end of the continuum, transactions are more integrated and formed by mutual interest, shared goals and reciprocity. The representatives were asked to indicate to what extent the different governance structures apply to their initiative. These results are presented in Table 28. On average the market (24%), contracts (32%) and relation-based alliance (35%) governance structure are most frequently used to govern transactions. The equity-based and alternative structures are used less frequently; on average in only resp. 3% and 6% of the transactions between chain partners. The two initiatives using an equity-based alliance involve both producers' cooperatives. In only three cases initiatives use governance structure other than defined before. It involves a franchise structure and foundations (club) which are the structures through with transactions are governed (i.e. involved parties cooperate).

Table 28: The average of governance structures in use in SFSCs' transactions.

Initiator		Market	Contracts	Relation-based alliance	Equity-based alliance	Alternative
Average	N=55[6]	24%	32%	35%	3%	6%
Supplier	N=17	46%	26%	21%	0%	7%
Distributor	N=13	5%	33%	50%	12%	0%
Buyer	N=25	19%	35%	38%	0%	4%

We could see differences among the initiators in the usage of governance structures (Table 28). For suppliers' SFSC initiatives the market seems to be the most important governance structure; as 46% of the transactions are governed by the market. For distributors' initiatives the situation is different. Half of the transactions are governed by relation-based alliances and 33% by contracts. Hence, these more integrated governance structures are both considered as important governance structures. Moreover, compared to the other type of initiators the equity-alliance governance structure is more important. For the buyers' SFSCs the relation-based alliance, contracts as well as the market are important governance structures.

So, the market seems to be the most important governance structure for supplier initiated SFSCs. The importance of the contract governance structure seems to be equal for every type of initiator as in all three cases around 30% of the transactions are governed by contracts. The relation-based alliance appears to be important for distributors' and buyers' SFSCs as respectively 50% and 38% of the transactions are governed using this governance structure. Also the equity-based alliance is more important for distributors, however in general this is not an important governance structure compared to the other ones. Accordingly, for suppliers' SFSCs the less integrated governance structures are important, contrarily to the distributors' and buyers' SFSC which prefer to use the more integrated ones.

In order to detail the differences in governing transactions between the SFSC initiatives, the governance structures in use are related to other variables concerned with value creation, such as having a collaboration strategy or not and orientation of cooperation. Hence, we are interested in the question: Do initiatives which have a collaboration strategy differ in their governance structures used compared to those initiatives which do not? Table 29 below shows us the results.

[6] The sum of total included initiatives is 52 instead of 57 as in 4 cases the chain initiator does not collaborate with others.

Table 29: The average of SFSCs' governance structures in use related to the collaboration strategy.

	Collaboration strategy	
	Yes (N=19)	No (N=36)
Market	6%	34%
Contracts	41%	27%
Relation-based alliance	35%	36%
Equity-based alliance	8%	0%
Other	11%	3%
TOTAL	**100%**	**100%**

From these results we can derive that in case SFSC initiatives do not have a collaboration strategy, the market is a more important governance structure: 34% of all transaction is governed by the market compared to 6% in case of having a collaboration strategy. Also a Chi Square test provide significant results concerning the relation between collaboration strategy and the market as governance structure in use ($X^2(1)=7.1$, p=0.01). Furthermore, the equity-based alliance is more important to govern transaction for initiatives having a collaboration strategy than those who have not (8% versus 0%). For the other governance structures the differences are rather small. From this we can conclude that initiatives having a collaboration strategy are likely to govern transactions via more integrated governance structures than the market. Based on this we posit that a collaboration strategy increases the importance of further integrated governance structures. If we link this to the literature, this is possibly because of shared interest, mutual goals and increased reciprocity (section 2.3.2).

Next to the differences between the type of initiators and whether or not having a collaboration strategy, we are interested in the relation between the governance structures and type of cooperation (i.e. either operational or strategic between the chain partners). To fulfill, the importance of operational and strategic cooperation is related to the different governance structures (Table 30[7]). However, we should take into account the relatively small number of initiatives which indicated to cooperate to some extent operationally. Furthermore, the equity-based alliance and alternative governance structures are left out, as they concern a small number of initiatives.

Table 30: Relation between governance structure in use and type of the cooperation (N=55).

Governance structure	**N**	**Operational**		**Strategic**	
		Mean	Std. dev.	Mean	Std. dev.
Market	N=15	2,3	1,7	**3,9**	1,5
No market	N=40	1,5	1,0	**4,7**	0,8
Contract	N=21	1,8	1,3	4,4	1,2
No contract	N=34	1,6	1,2	4,5	1,1
Relation-based alliance	N=22	1,4	0,7	4,8	0,4
No relation-based alliance	N=33	1,9	1,5	4,2	1,3

We discovered that the importance of strategic cooperation is significantly lower for the initiatives using the market (N=15) compared to those who do not use the market (N=40) as governance structure (U=208.5, p=0.02). Hence, by using the market to govern transactions partners are less likely to orientate at strategic cooperation than those initiatives which do not use the market. The difference in the importance of operational cooperation could not be statistically proved, although it seems more important for initiatives using the market (mean of 1.5 versus 2.3). It is also true that strategic cooperation is less important in initiatives using the market as governance structure compared to the

[7] A particular governance structures is considered as important and included as 50% or more of the transactions are governed by this particular governance structure. Subsequently, they are considered as not important in case less than 50% of the transactions are governed by this particular governance structure.

initiatives which use relation-based alliances (U=104, p=0.04). In sum, the market as governance structures involves less strategic cooperation and the more integrated the governance structures are (e.g. relation-based alliance) the more important is strategic cooperation.

To investigate the governance structure used within the direct to consumer SFSCs, a distinction is made between the levels of consumer participation, corresponding to the level of integration of activities. As discussed before in 6 cases consumers function as a collaborating partner. Based on our results we can conclude that SFSCs in which consumers could be considered as a collaborating partner (e.g. via membership) do not use the market to govern their transactions, but rely on contracts and relation-based alliances to successfully cooperate. Furthermore, SFSC initiatives could use more than one governance structure. For example it is stated that relation-based alliances could use and they do many times in practice, also contracts as part of their relationship. Though, from the 55 initiatives, a majority of 41 initiatives indicated only one governance structure and the remaining part of 14 initiatives indicate a combination of different governance structures. From these 14 SFSC initiatives, in 8 initiatives transactions are governed using both the relation-based alliance and contracts. In most of these cases both structures are equally important. In 4 initiatives the market structure is combined with contracts. In the remaining cases, transactions are partly governed using alternative structures (i.e. franchise organization) or equity-based alliance (i.e. cooperative) and combined with the relation-based alliance.

No differences could be found between the chain partners and governance structure which are used to align the interests. In case the chain initiator cooperates exclusively with nearby farmers (N=17) or also with wholesalers (N=20), in both cases seems the market, contracts as well as relation-based alliances important governance structure. These three are all used in approximately 30% of the transactions in the SFSC initiatives. However, in case chain initiators cooperate only with one partner (N=6), they use either contracts (40%) or relation-based alliances to govern their transactions (60%). So based on these results we could conclude that the type of chain partner seems not to relate to the governance structures in use.

The difference in preferred governance structure between the different types of geographical proximity of the SFSC initiatives is rather small. The initiatives limiting their activities to national borders seem to govern their transaction more via contracts as governance structure compared to the other types of geographical proximity. In these 9 initiatives 54% of the transactions are governed by contracts (which is 28% for the other types of geographical proxmity). Based on these results we could not find a relation between the geographical proximity of the initiatives and governance structures used. The same holds for the producer-consumer interaction of initiatives and the attempt to reduce the amount of food miles.

To conclude, the market, contracts and relation-based alliance seem to be important governance structures to govern transaction in the SFSC initiatives. The market as governance structure is not likely to be important for SFSC initiatives having a collaborating strategy with chain partners. Subsequently, using the market to govern transactions involves less strategic cooperation; the more integrated the governance structures are (e.g. relation-based alliance and equity based alliance) the more important is strategic cooperation. The other variables which are discussed in previous sections such as the geographical proximity, environmental sustainability and producer-consumer interaction tend not to be related with the governance structure.

4.3.4 Coordination mechanisms

Parties involved in a transaction will in principle follow a mechanism to coordinate transactions which is characteristic for the governance, as coordination refers to the incorporation of each other's actions; enhancing the predictability of other's behaviour. To provide more insights in the nature of coordination,

one could refer to coordination mechanisms which reflect the mechanisms used to govern transactions (Slangen et al., 2008). Our review distinguishes four coordination mechanisms which are price, authority, rational (rules, directives, safeguards) or social (norms, values and personal relations) oriented. Because the coordination mechanisms are not mutually exclusive, respondents were asked by means of a Likert scale question to indicate the importance of the different coordination mechanisms. The results are presented in Figure 15 and Table 31.

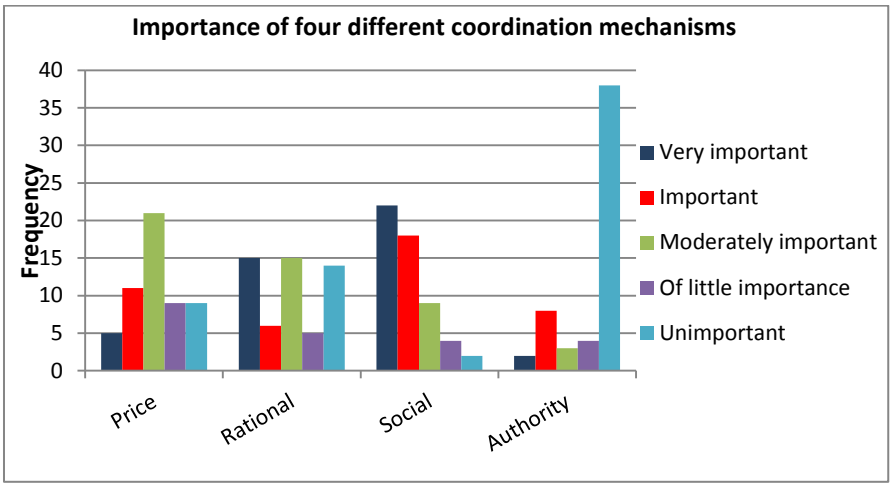


Figure 15: The importance of different coordination mechanisms in SFSCs.

Table 31: The importance of the different coordination mechanisms in SFSC transactions.

	Important	Undecided	Unimportant	TOTAL
Price	29,1%	38,2%	32,7%	100%
Rational	38,2%	27,3%	34,5%	100%
Social	72,7%	16,4%	10,9%	100%
Authority	18,2%	5,5%	76,4%	100%

About the price and rational related coordination mechanisms the importance differs among cases. For both type of mechanisms respondents indicate them as important, unimportant and are undecided as well. This is different for the social and authority related mechanisms. In 73% of the initiatives social related mechanisms are important to coordinate their transactions, in contrast to authority which is for 76% of the initiatives unimportant. These results suggest that it is not likely that transactions are coordinated by supervision and a formal entity which is higher in hierarchy is responsible for coordinating the transactions. By a distinction among the different type of initiators, the importance of the coordination mechanisms is rather equal. Derived from Table 26, we can see that for all initiators the social related mechanisms are most important. Authority seems to be more important for the distributors' and buyers' initiatives compared to the supplier ones.

Table 32: The importance of different coordination mechanisms related to the type of initiator.

	Average (N=55)		Supplier (N=17)		Distributor (N=13)		Buyer (N=25)	
	Mean	Std. dev	Mean	Std. dev	Mean	Std. dev	Mean	Std. dev
Price	2,7	1,2	2,7	1,3	3,0	1,1	2,7	1,1
Rational	2,8	1,6	2,8	1,7	3,2	1,6	3,0	1,5
Social	3,9	1,1	3,9	1,3	4,1	1,0	4,2	0,9
Authority	1,1	1,5	1,1	1,5	1,8	1,2	1,6	1,2

Following the continuum of the governance structures as discussed in the literature study (Section 2.3.2) the price as a coordination mechanism corresponds in the ideal-typical situation to the market as governance structure. On the other end of the continuum, the firm, transactions are more likely to be

coordinated by direct supervision and authority. An established entity (higher in hierarchy) is responsible for the work of other firms (lower in hierarchy) and for coordinating the transactions. Relational-based alliances emphasise from origin more on social mechanisms as identity of parties, informal agreements, rules, and norms are crucial. However, there is no one-to-one correspondence between coordination mechanisms and governance structure. For that reason we are interested in whether there are relations between the governance structures in use and coordination mechanisms (Table 33).

Table 33: Relation between the governance structures in use and the importance of different coordination mechanisms.

Coordination mechanism → Governance structure ↓	Price		Rational		Social		Authority	
	Mean	std. dev.	Mean	std. dev.	Mean	std. dev.	Mean	std. dev.
Market (N=15)	**3,6**	0,8	3,1	1,6	3,8	1,3	1,2	0,8
No Market (N=40)	**2,6**	1,2	3,1	1,5	4,1	1,0	2,0	1,4
Contract (N=21)	3,2	1,1	**3,7**	1,3	4,0	0,9	2,0	1,3
No contract (N=34)	2,7	1,2	2,6	1,6	3,9	1,2	1,6	1,3
Relation-based (N=22)	2,3	1,2	2,8	1,5	**4,3**	0,8	2,0	1,4
No relation-based (N=33)	3,3	1,0	3,2	1,5	3,8	1,2	1,6	1,2

The encircled are the predominantly coordination mechanisms

Concerning the coordination mechanisms, the importance of the price as coordination mechanism differs significantly among the SFSC initiatives using the market as governance structures (mean of 3.6, N=15) and those who use other governance structures (mean of 2.6, N=40) ($U=156$, $p<0.01$ and $X^2(1)=8.6$, $p<.01$). Hence, the differences between the price as coordination mechanism in the market and relation-based alliances is highly significant ($U=64.5$, $p<0.01$) and $X^2(1)=7.9$, $p<.01$). Also between the market structure and equity-based alliance the importance of the price as coordination mechanism differs. Though, the number of initiatives is too small to significantly confirm this. The importance of the price mechanism used in market governance structures and contract structures does not significantly differ ($U=123$, $p=0.13$ and $X^2(1)=1.8$, $p=1.8$). This means that in both the market and contracts governance structure the price plays an important role in coordinating the transactions. In more integrated governance structure the price is less important. These results correspond to the literature (section 2.3.3) which means that SFSCs do not different from this.

The rationally related coordination mechanisms seem to be most important for contracts as governance structures (mean of 3.7). Comparing the SFSC initiatives using contracts and those who do not (mean of 2.6), the importance of rationally related coordination mechanisms differs significantly ($U=218$, $p=0.01$). This association could be confirmed by a significant Chi Square $X^2(1)=4.6$, $p<0.03$. By comparing the importance of the rational mechanisms in contracts and other governance structures in use, it could be significantly confirmed that they are more important in contracts compared to relation-based alliances ($U=150$, $p=0.03$). No significant difference could be found between the market as governance structure and contracts.

Socially related coordination mechanisms seem to be important for all governance structures in use. Though, in SFSCs in which transactions are governed by a relation-based alliance, these socially related mechanisms are likely to be more important (mean of 4.3) compared to the initiatives using other governance structures (mean of 3.8) ($U=262$, $p=0.08$). However, no significant difference could be found concerning the relation between the importance of social coordination mechanisms and a relation-based alliance in use ($X^2(1)=1.9$, $p=0.17$). Also no statistically differences could be discovered concerning the importance of social coordination mechanisms between relation-based alliances and the other governance structures in use. In general authority is not important coordination mechanism in SFSCs, but

it seems to be more important in equity-based alliances (mean of 2.5) and alternative governance structures (mean of 3.3) compared to the other structures.

Based on these results, we can conclude that the price mechanism is most important for market governance structures. Though, SFSC initiatives in which the market is an important governance structure also socially related (mean of 3.8) and rationally related (mean of 3.1) coordination mechanisms are important. Moreover, no significant differences could be found between these coordination mechanisms. Rationally related coordination mechanism seems to be most important in contract governance structures. Concerning SFSC initiatives using contract as most important governance structure, rationally related mechanism are indeed more important compared to the price to coordinate their transactions (U=170.5, p=0.1). However, the socially related mechanisms seems to be important too (mean of 4.0). In SFSC initiatives using relation-based alliances the importance of the socially related mechanisms are significantly most important (mean of 4.3) compared to the other mechanisms to coordinate. A significant difference is found between on the one hand the price (mean 2.3) and rationally related mechanisms (mean of 2.8) and on the other hand the social related mechanisms in case of relation-based alliance as governance structure (resp. U=22.5, p=0 and U=103.5, p=0.001). Authority as coordination mechanisms seems not to be a very important in the transaction of SFSC. They tend to play a more important role in equity-based alliances and alternative structures, but other coordination mechanisms are still more important. Hence, coordination by direct supervision is subordinate compared to the other types.

To conclude, price, rationally and socially related coordination mechanisms seem to be important in SFSCs to coordinate transactions. According to our results, the price is more important in market as governance structure ($X^2(1)=8.6$, $p<.01$) and rationally related coordination mechanisms in contracts as governance structures ($X^2(1)=4.6$, $p<0.03$). Socially related coordination mechanisms seem to be important for all governance structures used by SFSCs. However, in relation-based alliances the socially related coordination mechanisms are by far more important than the price and rationally related mechanisms to govern transactions. Authority as coordination mechanisms seems not to be a very important in the transaction of SFSC. In the market and contracts as governance structure several coordination mechanisms seem to be important. For example, initiatives using the market to govern their transactions price as well as rationally and socially related coordination mechanisms are important. In initiatives in which contracts are an important governance structure, rationally as well as socially related coordination mechanisms are import to manage transactions. Lastly, no significant results could be found between the importance of the different coordination mechanisms and the collaboration strategy.

4.3.5 Conclusion

To create value the majority of SFSC initiators collaborate with other chain partners. In a majority of the initiatives no collaboration strategy is established. However, on average up to 89% suggest to cooperate strategically compared to 9% meant for operational cooperation. So, long term intentions and relationships between involved partners seem to be very important in the SFSCs. Subsequently, initiatives with a collaboration strategy all agreed to cooperate strategically (100%) and none of them agreed to cooperate operationally (0%). Furthermore, they are likely to govern transactions via more integrated governance structures than the market.

Initiatives in which the market is used involve less strategic cooperation; the more integrated the governance structures are (e.g. relation-based alliance and equity based alliance) the more important is strategic cooperation. To coordinate the transactions governed by the market, the price is a more important coordination mechanisms compared to other governance structures.

Next to the market, contracts and relation-based alliances are also important governance structures in SFSCs. They formalize cooperation in respectively 32% and 35% of all transactions. In contracts as governance structure rationally related coordination mechanisms are more important compared to other governance structures. In relation-based alliances the socially related coordination mechanisms are by far the most important mechanisms to manage transactions. The equity-based and alternative governance structures are used less frequently; on average in only resp. 3% and 6% of the transactions between chain partners.

After discussing the value proposition of SFSCs and their value creation, we can assess whether or not the second proposition is true.

P 2 The value proposition of SFSCs comprised by the product characteristics and customer relationship influences the value creation comprised by the collaboration strategy, governance structure and coordination mechanisms.

The results concerning the different variables and whether or not they are related is presented in Figure 16. The green blocks suggest a relation between two variables and shaded blocks represents no relation between the variables. The area inside the thick red borders represents the value proposition. Based on these results we conclude that proposition 2 cannot be confirmed (see relation 4).

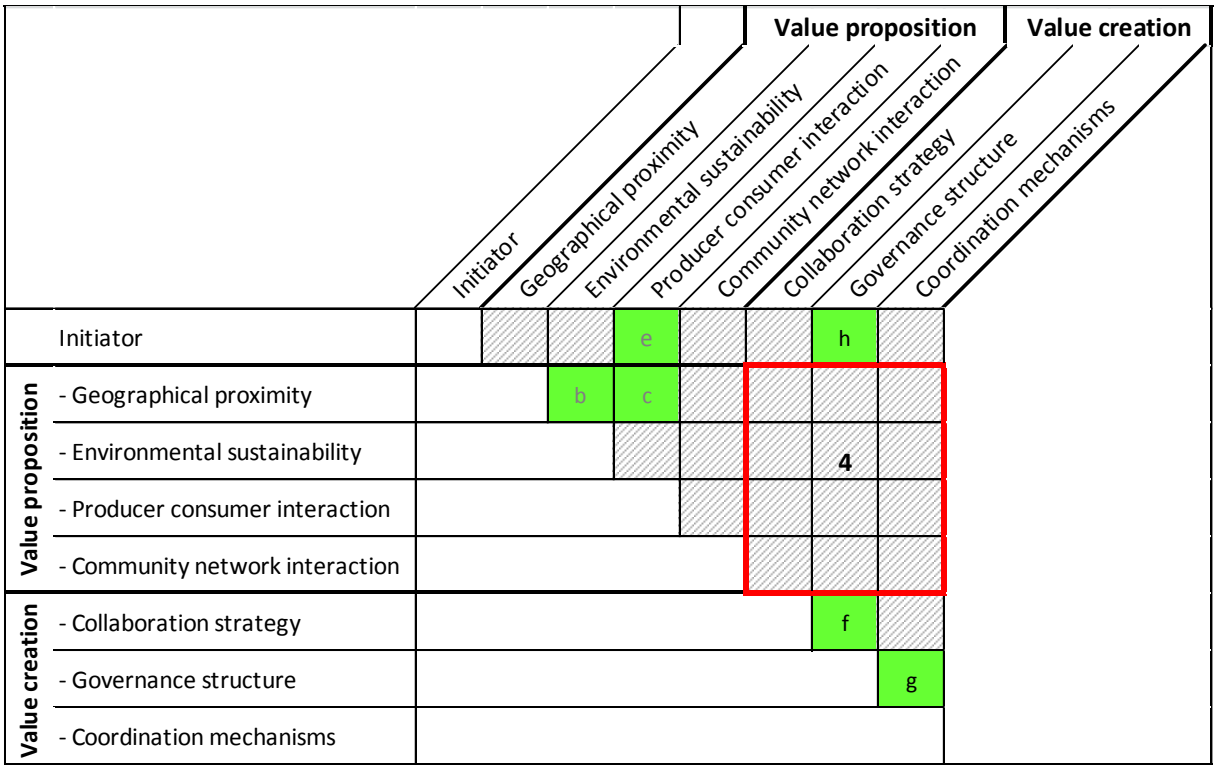


Figure 16: Conclusions regarding proposition 2.

f) The geographical proximity of initiatives, environmental sustainability, type of producer-consumer interaction and community network interaction does not determine whether or not SFSC initiators have a collaboration strategy with chain partners, which governance structures are used and coordination mechanisms are important.

No relations between the different constructs (i.e. value proposition and value creation) are found. However, the variables comprising the constructs seem to be interrelated, which is confirmed by relation f and g. Also the type of initiator relates to the value creation which is specified by relation h.

a) Using a collaboration strategy increases the importance of strategic cooperation between the involved partners. Initiatives which do not have a collaboration strategy the market is a more important governance structure ($\chi^2(1)=7.1$, $p=0.01$). Hence, initiatives in which the market is used involve less strategic cooperation ($U=208.5$, $p=0.02$); the more integrated the governance structures are (e.g. relation-based) the more important is strategic cooperation.
b) To coordinate the transactions governed by the market, the price is more important as coordination mechanisms compared to other governance structures ($\chi^2(1)=8.6$, $p<.01$). In contracts as governance structure rationally related coordination mechanisms are more important ($\chi^2(1)=4.6$, $p<0.03$) and in relation-based alliances the socially related coordination mechanisms are most important to manage transactions. This confirms the literature, however in initiatives in which the market is used as an important governance structure also rationally and socially related coordination mechanisms are important. Furthermore, in contracts rationally related coordination mechanisms together with socially related mechanisms are the most important mechanisms.
c) For suppliers' initiatives the market seems to be a more important governance structure compared to the other type initiators as 46% of all their transactions are governed by the market. However, no significant results could be found.

As no relationship between the value proposition of SFSCs and their value creation could be found, we wonder whether or not the ambition behind SFSCs influences the value creation. Subsequently we found the following relations[8]:

d) SFSC initiatives which are driven by the aim to increase the economic viability are less likely to have a collaboration strategy with their chain partners ($X^2(1)=6.7$, $p=0.01$). Furthermore we found an association between the driver to support producers and having a collaboration strategy ($X^2(1)=12.1$, $p=0.001$).
e) The market as governance structure is more frequently used by SFSCs driven by the aim to increase the economic viability ($X^2(1)=8.1$, $p=0.02$).

To conclude, our results suggest that the ambition behind an initiative influences the value creation of SFSCs rather than the value proposition.

4.4 Value capture

After determining the ambition behind SFSC initiatives, their added value (value proposition) and organization (value creation) it is also important to find out whether or not they are economic viable. This is considered as value capture in which attention is paid to the revenue sources and streams. The revenue source involves the different ways of receiving money in exchange for its offers. These are discussed in section 4.4.1. More related to the economic performance are the revenue streams as they involve the profit margins and revenues brought about by the initiatives. These are discussed in section 4.4.2. Lastly, section 4.4.3 discusses whether the third proposition is supported, rejected or unclear.

4.4.1 Revenue source

By the analysis of the SFSCs it becomes clear that the revenue source varies between two types. However, almost all the initiatives (N=52) generate their revenues by selling products. This could be with or without subscription. For example, home delivery initiatives or CSA SFSCs in which box schemes are offered rather sell subscriptions. Second, a small part (N=5) generates their revenues via membership. In these cases members (consumers) pay their membership through which the initiative is financed.

[8] These relations are not presented in Figure 16 as these are beyond the scope of the second proposition.

4.4.2 Revenue streams

In this research the economic performance indicators such as the product margin, share of total volume and share of total revenues comprise the revenue streams and hence determine the value capture of SFSC initiatives. These results should provide information about the actual contribution of SFSCs for the involved parties and chain initiator and should prevent us from an overvaluation of the economic benefits of SFSCs (Section 2.2.5). Therefore the chain initiators are asked to indicate the profit margin of the products involved in the initiative. However, in 21 SFSC initiatives all revenue streams are dedicated to the SFSC initiative; they are not part of the business but comprise the entire business. For that reason these chain initiators were asked to indicate the product margin of the suppliers (farmers) instead of their own, since they do not compare it with other type of supply chains. The results are presented in Table 34 and involve mostly buyers (N=10) and distributors initiatives (N=7). Furthermore, 6 CSA initiatives are not included as the membership contribution fee or subscription fee depends on the predicted costs. In the suppliers initiated CSA initiatives the farmers indicated to aim at a normal (regular) income[9].

Table 34: Profit margin of the SFSC initiators (N=28).

	Supplier[10]	Distributor	Buyer	TOTAL
Higher	11	1	1	**13 (41%)**
Comparable	3	3	7	**13 (41%)**
Lower	0	1	5	**6 (19%)**
TOTAL	**14**	**5**	**13**	**32**

Table 35: The product margin of the suppliers of the SFSC which are fully dedicated to the SFSC (N=21).

	Distributor	Buyer	TOTAL
Higher	5	5	**10 (59%)**
Comparable	2	4	**6 (35%)**
Lower	0	1	**1 (6%)**
TOTAL	**7**	**10**	**17**

Based on the results in Table 34 the profit margin of the chain initiators are for the majority at least comparable (41% N=13) or higher (39% N=13) compared to main stream food chains. The chain initiators having a higher profit margin concerns mostly suppliers (N=11). This means that only 3 indicate that there is no difference (i.e. profit margins are comparable). The representatives of the latter ones indicate that by including all the costs, the margin received is not higher as additional costs counter-effect the higher margins (e.g. manpower, fuel etc.). From the 13 chain initiators which indicate to have a higher profit margin, 7 indicate to have a profit margin higher or equal to 50% compared to mainstream and the other 5 lower than 50%.

In only 6 cases chain initiators indicate to have a lower profit margin. These involve 5 buyers' initiatives which for example concern retailers or restaurants. These chain initiators indicate a lower margin as the products are more expensive to buy and/or bring additional costs and hence generate a lower margin. By proving an indication about the extent to which the margins are lower, most of them mention between the 5-25%. It may be plausible that the majority of these initiatives are not driven by the aim to increase the economic viability of their business. For example, a retailer has the aim to gain experience in sourcing regional food, for a distributor it is part of their social corporate responsibility strategy and for others it is related to the aim to be differentiated. Hence, the products brought about by these SFSCs could involve a lower profit margin. The restaurants indicating to receive a lower profit margin refer to additional costs as they have to deal with several suppliers and pick up the products by themselves. Concerning the processed products (e.g. meat, cheese or ice cream) these are in most cases more expensive to purchase. However, another chain initiator indicates that a higher price of these products not necessarily means a lower profit margin. A better quality of the food products involves less waste which could outweigh the higher price.

[9] 3 chain initiators could not indicate whether the product margin is higher, lower or comparable.
[10] These numbers also include the suppliers' initiatives which are fully dedicated to the SFSCs (N=4) (e.g. farmers which only sell their products at farmers' markets or via home delivery services).

The product margins of the suppliers of the SFSCs which are fully dedicated to the SFSC are in 59% (N=10) higher compared to their main stream opponent and in 35% (N=6) comparable (Table 35). Hence, the margin of the suppliers to buyers' and distributors' SFSC is not likely to be lower. By having these results we are interested in whether we can find, based on our previous results, clarifications for the different margins. By investigating the relation between the value creation (i.e. collaboration strategy, governance structure and coordination mechanisms) of SFSCs and the profit margin of the chain initiators it becomes clear that whether or not having a collaboration strategy seems not to be related to the received profit margin of the chain initiators. By a further analysis we discovered a positive association between the market as governance structure and a higher profit margin ($\chi^2(1)=12.8$, $p=0.001$). Initiatives in which the market is an important governance structure to govern transaction, the chain initiator seem to have a higher profit margin. About the other governance structures and importance of coordination mechanisms no significant relations could be found.

4.4.3 Conclusion

In the end we are interested in answering the question: Could we conclude that a better economic viability is definitely characteristic for the SFSCs? For the suppliers we could say yes. Based on our results the suppliers (both which are initiators and supply other SFSC initiatives) receive at least a comparable but in most cases a higher margin compared to their opponent. This is confirmed by the fact that we found a significant relation between the market as important governance structure and a higher profit margin ($\chi^2(1)=12.8$, $p=0.001$). The market is an important governance structure for suppliers' SFSCs which can be concluded from our prior results (section 4.3.3, Table 11). For the chain initiators which are not suppliers, this is less clear. In most cases these are comparable but could also be higher of lower. Based on our empirical results we could not find a plausible clarification for the differences.

After discussing the value proposition of SFSCs and their value creation, we can assess whether or not the third proposition is true.

P 3 The value creation comprised by the collaboration strategy, governance structure and coordination mechanisms influences the revenue streams generated by a SFSC.

The results concerning the different variables and their relations are presented in Figure 17 below. The green blocks suggest a relation between two variables and shaded blocks represents no relation between the variables. The area inside the thick red borders represents the value proposition. Based on these results we conclude that the value creation indeed relates to some extend to the value capture of SFSCs (see relation 5).

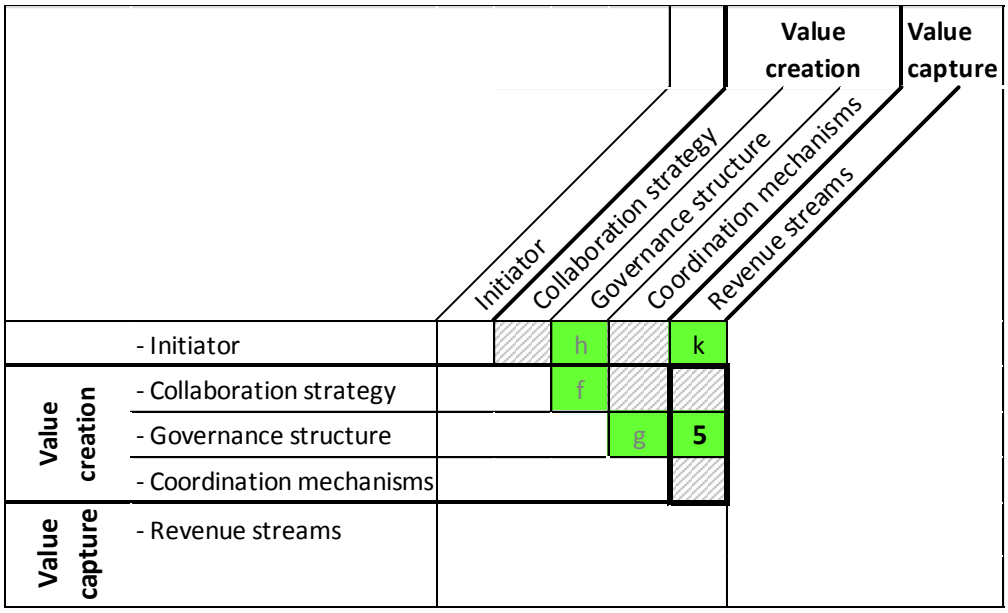


Figure 17: Conclusions concerning proposition 3.

g) Concerning the relation between the value creation and value capture only a relation is found between the governance structure and the received profit margin. Based on our results we can conclude that initiatives in which the market is an important governance structure the chain initiator is likely to receive a higher profit margin ($\chi^2(1)=12.8$, p=0.001).

As no other relations between the different constructs (i.e. value proposition and value creation) are found, we are interested in whether the type of chain initiator or ambition behind an initiative has influence on the revenue streams (relation k and l).

f) Suppliers' initiators seem to receive more likely a higher profit margin compared to the distributors' and buyers' initiators.
g) Furthermore, we found significant results concerning the economic viability as driver and a higher profit margin ($X^2(1)=7.9$, p=0.01). This confirms our prior results, since we concluded that economic viability is an important driver for suppliers' initiatives.

4.5 Challenges

After having discussed the current situation of the SFSCs, we are also interested in the development of these initiatives, their challenges and their future development. Furthermore, this section examines whether the fourth proposition is supported, rejected or unclear.

First, the representatives were asked by means of a Likert scale question to provide an indication about the extent to which prior ambitions were realized (Table 36). We can conclude that in general the representatives were certainly positive about the development of their initiatives so far. It seems that almost all initiatives realized what should be accomplished by the SFSCs according to their initial drivers (Section 4.1.1).

Table 36: The extent to which initial ambitions (i.e. drivers) behind the SFSCs are realized.

Driver	N	Mean	Std. dev.
1) Connection producers and consumers	24	4,5	0,6
2) Economic viability	19	4,5	0,8
3) Quality	11	4,7	0,5
4) Support producers	11	4,3	0,9
5) Entrepreneurship	8	4,5	0,8
6) Transparency	9	4,0	0,7
7) Environmental sustainability	5	4,4	0,9
8) Geographical proximity	3	4,7	0,6

The majority of the initiatives (87%, N=47) indicated that the initial ambitions are totally or almost totally realized. By a further analysis it becomes clear that the initial ambitions of certain initiatives which are not totally realized yet, are all economy related. To this group belongs for instance a farm shop which is driven by the aim to increase the economic viability, or CSA farm which is after 3 operating years not economically viable yet. Also distributors' or buying initiatives which aim to support producers or establish a viable business mentioned not to be totally satisfied at the moment. Though, these initiatives are of quite recent date. To conclude, the initiatives are positive about their developments so far since most of their ambitions are realized.

Second, by means of an open question respondents were asked to indicate whether or not they will face challenges and foresee future developments. Most of the suppliers' initiatives face explicitly a challenge concerning the number of consumers (N=13), or in other words the sales. For example, these initiators recognize a recess in consumer expenditures and increased competition. Nowadays there are a lot of alternatives. This is for example reflected by an increased number of farm shops and retailers which also introduce regional foods. Related to this challenge, suppliers face a challenge in bonding consumers to their initiative and increase the consumer loyalty. This is required in order to ensure sales. Furthermore, certain initiatives face challenges to increase the number of consumers. For example, a CSA initiative has room for more consumers (subscribers). The minority which foresees no challenges concerning continuity and growth are challenged by further developments of their initiatives (N=6).

By asking the initiatives what they foresee in the coming years, it becomes clear that halve of the suppliers' initiatives have explicit plans to face their indicated challenges (N=10). The other halve does not indicate planned action or aims to further develop their initiatives (N=4). For example, initiators indicate the aim to source more products from the region or improve the environmental sustainability (e.g. increase soil fertility). Suppliers' initiatives which do have plans refer mostly to the assortment which they aim to expand and PR activities (N=6). This should make the initiatives more attractive for consumers and increase for example the publicity of the farmers' market, CSA or home delivery initiatives. Furthermore, the initiators are engaged with exploring new market activities (N=4). For example, this could involve possibilities to supply another farmers' market or a CSA farm which aims to include also social care activities. Also a supplier initiator mentioned to create an agricultural museam next to the farm shop, which should increase the customer base.

Next to the suppliers' initiatives, also distributors' and buyers' initiatives face challenges concerning the continuity and growth (resp. N=5 and N=11). Especially the initiatives from quite recent date tend to focus on growth in terms of turnover and customers. The other part of the initiatives are concerned about challenges related to further developments of their initiatives (N=19). This could involve SFSC initiators which face challenges concerning food safety. Smaller producers often do not have the ability to certify their products and guarantee food safety (e.g. HACCP). For that reason it is difficult for larger companies

(such as food distributors or retailers) to source products from these smaller producers. Also chain initiators refer to the logistics which is challenging to organize it efficiently and effective. Other initiatives such as buyers' initiated home delivery SFSCs or restaurants aim to increase the support for nearby suppliers. For example, they aim to ideally include 100% regional products. Next to these challenges respondents indicated challenges which are case specific. For example, one food service SFSC initiative, which enables producers to sell their products via an online platform, is facing a challenge in changing the physical environment of buying and selling products to an online environment. Another initiator faces a challenge in the flexibility of the business and their decisiveness.

By investigating their explicit plans in the coming years, the majority (N=20) plans to improve their current operations. This could involve a new web shop interface and ICT systems in case of home delivery initiatives. For example, initiatives which are organized regionally aim to expand their distribution area. Other initiatives aim to widen the assortment (N=8), for example the retailers. They foresee an increased customer demand and for that reason they aim to include more products to their regional assortment. To ensure growth and continuity and further developments, some initiators indicate the intention to target a new market segment (N=4). For example, a distributor currently supplying consumers and retail also aims to supply public organization. Another distributor supplying nursery homes aims to focus more on the direct consumer segments as these are likely to generate more profit for the suppliers.

To conclude, concerning the majority of the initiatives they are satisfied at the moment, the initial ambitions are realized. Though, some foresee difficulties to keep the business viable, continue and ensure the same sales numbers (N=29). The other initiators are challenged by issues related to further developments of their initiatives. Concerning most of the initiatives their future developments involve improvements of their own initiative (N=24) (e.g. efficiency in logistics or ICT), widen the current assortment (N=19) and targeting new market segments (N=8).

Literature shows us that business models develop and changes over time. For that reason the realization of the ambitions so far could determine whether the aims of SFSCs are realized and thus determine further developments. After discussing the value capture of SFSCs and their challenges and further developments, we can assess whether or not the fourth proposition is true.

P 4 The generated revenue streams of a SFSC initiative influences the ambition behind further developments of a SFSC initiative

Based on our results we could not provide a plausible conclusion. First of all, we had to distinguish initiatives which are fully dedicated to the SFSCs from those initiatives which are part of a wider business. To correct for it substantially reduces our sample size which makes it difficult to find significant results. Second, no differences could be found between the initiatives in which the chain initiator receives a higher profit, comparable or lower profit and their challenges. Hence, we cannot confirm or reject this proposition. More empirical research is required to analyse this proposed relation.

However, somehow the ambition behind the initiatives seems to be related to the revenue streams. We found that the initiatives in which the chain initiator indicates to have a lower profit margin are not driven by the aim to increase the economic viability or their business. They are rather driven by the quality of food products, entrepreneurship or the support for producers. Hence, these SFSCs can involve a lower profit margin for the chain initiator. Furthermore, we found a significant relation between the chain initiators receiving a higher profit margin and economic viability as driver behind the SFSC initiative ($X^2(1)=7.9$, $p=0.01$).

Furthermore, in general the chain initiators are positive about their achievements so far. Though, initiatives which are less positive about the realization of one of their prior ambitions are economy related (N=7). No relation could be found between the realization of prior ambitions and their future developments of SFSCs. They refer to different developments, for example a farm shop owner indicates to create a museum of old agriculture materials which should attract more customers. Other respondents refer to the aim to increase the public relations, robustness or aims to target new markets. This could not be considered as typical for those initiatives which were less positive about their economic development.

4.6 Conclusion

This last section discusses the results of the prior sections and further examines the propositions that were derived in Chapter 2 (section 2.5). This should provide insights to answer the following research questions:

RQ3b: Which classification represents SFSCs in the Netherlands?

As described in the prior methodology section, first a classification is made between the types of chain initiator of the SFSC initiatives (section 3.2). Hence, differences and similarities between suppliers, distributors and buyers initiated SFSCs are taken into account. Furthermore, the Dutch SFSC initiatives are analysed according to the constructs of the theoretical framework (Section 2.5). Accordingly, SFSCs could be classified according to the ambitions behind the SFSCs, their value propositions, value creation and value capture processes.

Ambition
By an analysis of the open answers provided by the respondents, differences among the ambitions behind the SFSC initiatives are found. We conclude that Dutch SFSC initiatives are driven by 8 different drivers (Table 12, Section 4.1.1). The most important drivers concern the establishment of a connection between producer and consumer (N=26) and the aim to increase the economic viability of the business (N=19). The respondents are clear about this and refer many times to the aim to improve the connection with the end-consumer, looking for more appreciation of the business and improve the link between producing (i.e. the producer and place of production) and consuming food. Suppliers' initiatives are mostly driven by the aim to increase the economic viability of the business and respondents refer clearly to 'income' as their driver. Furthermore, distributors' initiatives are mostly driven by the aim to support producers. For buyers' initiatives, apart from the connection between producer and consumer, the quality (e.g. freshness) of the food products is an important driver.

Value proposition
About the value proposition of the initiatives, differences concerning the product characteristics comprised by the geographical proximity and the environmental sustainability could be noticed. First of all, according to the open answers of the chain initiators geographical proximity is considered as one of the most important competitive advantages together with the connection between producer and consumer and the quality of the food products (Table 17, Section 4.2). By analysing the actual proximity, three types could be distinguished: initiatives which are dedicated to a specific Dutch region (Type 1, N= 30), to the entire country (Type 2, N=9) or widen their geographical proximity to outside national borders (Type 3, N=18). However, no relation could be found between indicating it as an important competitive advantage and the actual geographical proximity of the initiatives (Section 4.2.1).

In line with the geographical proximity of the initiatives claims are made about the environmental sustainability of SFSCs. These refer to reduced food miles as the effect of the short distances between producer and consumer and sustainable production methods (section 2.2.4). Based on our results, one

third of the initiatives seems to take into account the attempt to reduce the amount of food miles. However, no relation between the actual geographical proximity and the attempt to reduce food miles is found (section 4.2.1). Furthermore, 40% of the initiatives involve biological production and our results suggest that these initiatives are less geographical proximate compared to conventional ones. They somehow widen their proximity to outside the national borders (Section 4.2.2). In all probability, the availability of the products and the aim to offer a broad assortment play a role. So, the environmental sustainability of SFSCs as a result of limiting the distribution area seems not to hold. No relation with the attempt to reduce food miles could be found and biological initiatives tend to widen their geographical proximity. Furthermore, as geographical proximity is considered as important competitive advantage, but no relations could be found regarding the actual geographical proximity, we suggest that most likely the geographical proximity is used for marketing purposes regarding the end-consumer.

Next to the geographical proximity and environmental sustainability, also part of the value proposition is the customer relationship, comprised by the producer-consumer interaction and the community-network interaction. The majority (N=34) involves a proximate producer-consumer interaction, followed by a face to face interaction (N=18). This means that the majority of the SFSCs maintain not a direct relationship between producers and consumers, but extents its reach by the use of intermediaries which guarantee the producers' identity (i.e. place of production). For example, home delivery box schemes, buying clubs, producers cooperatives or restaurants. Hence, in most of these initiatives the chain initiator concerns a distributor or a buyer. Also a big part of the initiatives involves a direct relationship in which the producer of the products directly interacts with its consumers. These concern mostly suppliers' initiatives (e.g. farm shops or farmers' markets) and our results suggest that most of these initiatives are likely to limit their activities to a certain Dutch region (Section 4.2.3).

About the community network interaction, SFSC initiatives are by a majority (77%, N=26) considered as a contribution to the reputation and engagement in society of the chain initiators' businesses. About the function of this contribution (whether it bonds or bridges) the representatives are less decisive. Furthermore, on average half of the initiatives organize community building activities. About the social involvements respondents had difficulties to indicate to what extent these activities contributed and their social function (section 4.2.4).

Value creation

Next to differences concerning the ambitions and value propositions of SFSCs, also differences could be noticed regarding the value creation activities. To create value, the majority of SFSC initiators collaborate with other chain partners. Regardless the type of chain initiator, in most initiatives (N=37) an important chain partner concern nearby suppliers. Though, wholesalers are also indicated as an important partner. According to the respondents this reduces the number of chain partners and increases the availability of products. Literature addresses the urge of collaborative supply chains (section 2.3.1). In our sample, one third of the initiatives do have a collaboration strategy. It is remarkable that this involves all larger companies, which incorporated a SFSC initiative into their business (like retailers and distributors), and initiatives in which the chain initiator comprises more than one firm (e.g. producers' cooperatives, CSA and other types of collaboration structures). Hence, farm shops, home delivery services are rather established without a clear collaboration strategy with other involved parties. Moreover, it is remarkable that strategic cooperation is in almost all initiatives more important compared to operational cooperation. Hence, long term intentions and relationships between involved partners seem to be very important in the SFSCs (section 4.3.2).

Furthermore, differences are found concerning the governance structures used and coordination mechanism. Based on our results, three governance structure are used predominantly which comprises

the market (24%), contracts (32%) and relation-based alliance (35%) (Table 20, Section 4.3.3). The market seems to be most important for the supplier initiated SFSCs as 46% of all transactions are governed by using the market. To coordinate these transactions, the price is an important coordination mechanism which confirms the literature. However, rational and social mechanisms are also important (Table 25, Section 4.3.4). Certificates, personal relationships and informal agreements also play a coordinating role in market used as governance structure.

Concerning the initiatives in which contracts is an important governance structure, price is not an important coordination mechanism in contrast to rationally and socially related mechanisms. For initiatives using relation-based alliances as important governance structure, only socially related coordination mechanisms seems to be important. In these initiatives the socially oriented coordination seems to lower the importance of the other coordination mechanisms. Based on our literature study we posit that a great deal of trust and the personal relationship decreases the need to use other mechanisms.

Value capture

An important characteristic claimed for SFSCs is their orientation towards the economic viability of involved actors. According to the literature study this is especially true for suppliers which could avoid the so called 'price squeeze' (Section 2.2.2). Based on our results this could be confirmed; the suppliers (both which are initiators and supply other SFSC initiatives) receive at least a comparable but in most cases higher margin in SFSCs compared to their opponent. For the other type of chain initiators, the situation is different. In distributors' and buyers' initiatives, chain initiators' profit margins are in most cases comparable, however sometimes also lower. These chain initiators indicate a lower margin as the products are more expensive to buy and/or bring additional costs and hence generate a lower margin. About the extent to which SFSCs contribute to the total revenues, respondents are divided and based on these results we cannot draw conclusions.

Now we investigated how the different constructs apply in Dutch SFSCs we are interested in whether or not these variables relate to each other. When we link all the included variables, this will provide the following Figure 18. The green blocks suggest a relation between two variables and shaded blocks represents no relation between the variables. The area inside the thick red borders represents the value proposition. First of all, it is remarkable that the revenue orientation as part of the ambition behind an initiative does not influence variables from other constructs and only relates with the drivers behind an initiative. Accordingly, SFSC initiatives driven by establishing a connection between producer and consumer have a revenue orientation corresponding to cost coverage ($\chi^2(1)=11.2$, $p=0.004$). Initiatives driven by the aim to increase their economic viability are likely to not focus on cost coverage ($\chi^2(1)=6.3$, $p=0.04$). Second, the variable community-network interaction is left out. This is because the respondents had difficulties to indicate to what extent SFSCs and community building activities were contributing and bonding and bridging (Section 4.2.4) and for that reason could not be linked to other variables. Third, based on the results presented in Figure 18, the four propositions were assessed from which we can conclude the following:

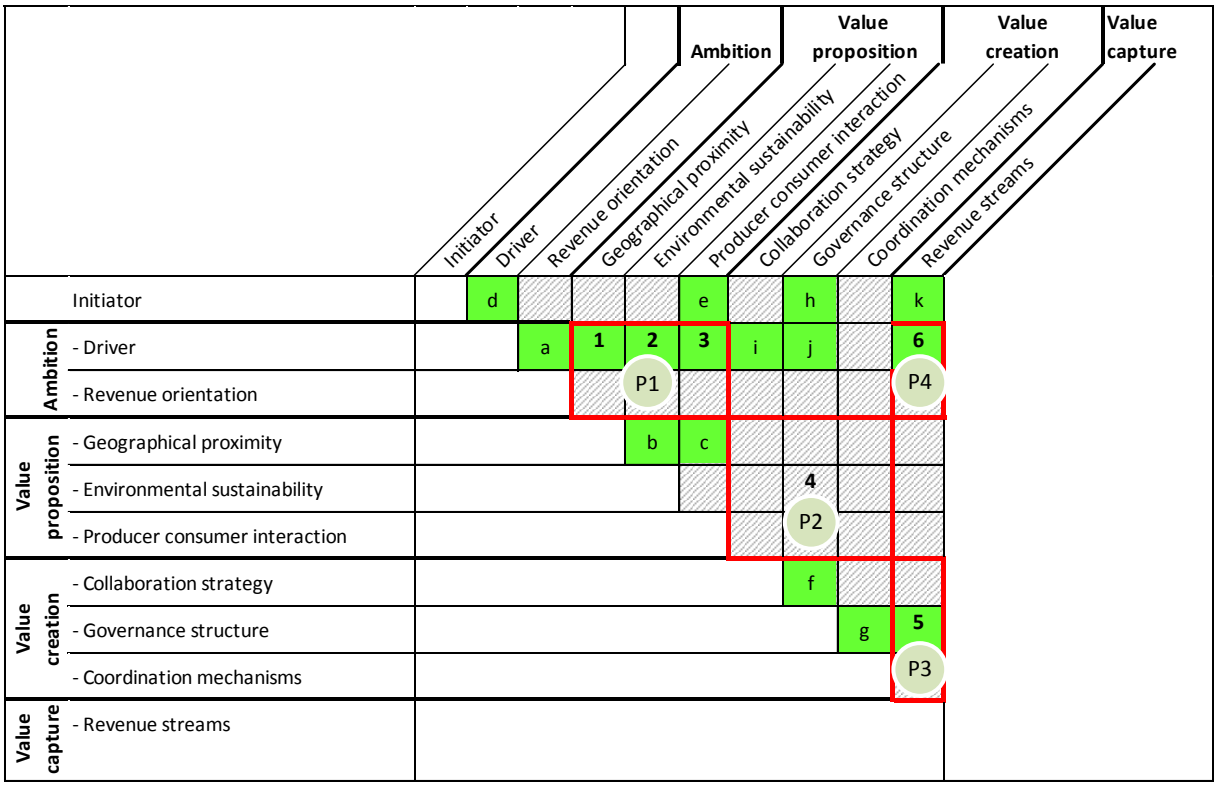


Figure 18: Conclusion regarding the propositions; significant relations between the constructs and variables included in the theoretical framework.

P 1 The ambition behind SFSC initiatives comprised by the driver and revenue orientation influences the value proposition of the SFSC initiatives comprised by the product characteristics and customer relation.

From the two variables comprising the ambition, only the drivers behind an initiative are definitely related to the product characteristics and customer relation. Accordingly, we conclude that the first proposition is supported regarding the drivers behind the SFSC initiatives. This is reflected by the following results:

1 SFSCs driven by the connection between producer and consumer are likely to limit most of their activities to a specific Dutch region (Type 1, section 4.2.1) ($\chi^2(1)=4.0$, p=0.05).
SFSCs driven by environmental sustainability involve all biological production (N=6) ($\chi^2(1)=9.2$, p=0) though not the other way around. This shows the influence of the ambition behind the initiative on the developed value proposition.

2 SFSCs driven by economic viability are not likely to reduce the amount of food miles ($\chi^2(1)=6.7$, p=0.01) in contrast to initiatives which are driven by the support to producers ($\chi^2(1)=4.7$, p=0.03).

3 SFSCs driven by economic viability are likely to involve a face to face producer-consumer interaction ($\chi^2(2)=23.8$, p=0). Initiatives driven by the support for producers seems to significantly involve a proximate interaction ($X^2(1)=9.2$, p=0.005).

P 2 The value proposition of SFSCs comprised by the product characteristics and customer relationship influences the value creation comprised by the collaboration strategy, governance structure and coordination mechanisms.

Based on the results we conclude that proposition 2 cannot be confirmed as the geographical proximity, environmental sustainability and producer-consumer interaction does not significant relate to the value

creation variables of the initiatives (relation 4). However, the variables of the value creation construct are interrelated.

f) Initiatives which do not have a collaboration strategy, the market is a more important governance structure ($\chi^2(1)=7.1$, p=0.01). Hence, initiatives in which the market is used involve less strategic cooperation; the more integrated the governance structures are (e.g. relation-based alliance and equity based alliance) the more important is strategic cooperation.
g) To coordinate the transactions governed by the market, the price is more important as a coordination mechanisms compared to other governance structures. However, also rational and social related coordination mechanisms are important. Furthermore, in contracts rational together with social related coordination mechanisms are the most important ones. In relation-based governance structures no other coordination mechanism than social related ones seem to be important.

Furthermore, we wondered whether or not the ambition behind initiative somehow relates to the value creation as there is no significant relationship between the value proposition of SFSCs and their value creation. Subsequently, we found that initiatives which are driven by the aim to increase the economic viability are less likely to have a collaboration strategy with their chain partners ($X^2(1)=6.7$, p=0.01) (relation i). Hence, the market is more frequently used to govern transactions as there is also a significant relation between economic viability as driver and the market as important governance structure in use ($X^2(1)=8.1$, p=0.02) (relation j). Furthermore, there is an significant relation between the driver to support producers and having a collaboration strategy ($X^2(1)=12.1$, p=0.001) (relation i).

P 3 The value creation comprised by the collaboration strategy, governance structure and coordination mechanisms influences the revenue streams generated by a SFSC.

Concerning the relation between the value creation and value capture only a relation is found between the governance structure and the received profit margin (relation 5). Based on our results we can conclude that initiatives in which the market is an important governance structure the chain initiator is likely to receive a higher profit margin ($\chi^2(1)=12.8$, p=0.001).

In sum, proposition 1 and 3 are to some extent confirmed. Hence, there is a significant relation between the ambition behind an SFSC initiative and the value proposition and there is a significant relation between the value creation and value capture. Proposition 2 could not be confirmed, as we could not confirm the relation between the value proposition and value creation. Furthermore, it is remarkable that the driver behind the SFSC initiatives (as part of the ambition) is related to almost all other variables (Figure 18). Based on our results it seems to be that the ambition behind an initiative influences the value creation of SFSCs rather than the value proposition. However, most of the significant relations between the drivers behind the initiative and other variables concern the driver to increase the economic viability of the business. For example, concerning the relation between the driver behind a SFSC and their value creation, the other drivers show no significant results concerning their influence on the value creation.

We can conclude that in general the representatives are certainly positive about the development of their initiatives so far. Our results suggest that almost all initiatives realized what should be accomplished by the SFSC according to their initial drivers (Table 36, section 4.5). However, some initiators foresee a challenge to keep the business viable and ensure the same sales numbers (N=29). Increased competitaviness and a recess in consumer expenditures provides challenges for these initiators. Especially the initiatives from quite recent date tend to focus on growth in terms of turnover and customers in the coming years. The other initiators are challenged by issues related to further developments of their initiatives. Concerning most of the initiatives their future developments involve improvements of their

own initiative (N=24) (e.g. efficiency in logistics or ICT), widen the current assortment (N=19) and targeting new market segments (N=8).

P 4 The generated revenue streams of a SFSC initiative influences the ambition behind further developments of a SFSC initiative

The fourth proposition could not be confirmed neither rejected. Based on our results we could not draw conclusions due to the number of included initiatives. To correct for the differences between SFSC initiatives which are fully dedicated to the SFSCs and the initiatives which are part of a wider business reduced our sample size which makes it difficult to find significant results. However, to some extent the ambition behind the SFSC initiatives seems to be related to the revenue streams. We found that the initiatives in which the chain initiator indicates to have a lower profit margin are not driven by the aim to increase the economic viability or their business. They are rather driven by the quality of food products, entrepreneurship or the support for producers. Furthermore, we found a significant relation between the chain initiators receiving a higher profit margin and economic viability as driver behind the SFSC initiative ($X^2(1)=7.9$, $p=0.01$) (relation 6).

5 CONCLUSION

This last section involves the conclusions of the research which is comprised by a classification among SFSCs in section 5.1 and subsequently in section 5.2 we derive a typology. Furthermore, we provide a critical analysis of the research and indicate the consequences related to the constraints in section 5.3. Finally, the last section 6.2 discussed recommendations for managerial and academic purposes as well.

This research focuses on SFSC initiatives in the Netherlands, for which there is no overview yet. It involves a broad approach and investigated what the content of a SFSC involves in a Dutch context, since local aspects of SFSCs are not everywhere the same (Allen et al., 2003, Feagan, 2007). A SFSC is a wide-ranging concept and there is no consensus on a precise definition. For that reason we derived, based on our prior literature study, the following definition fundamental for our research.

The production and distribution of food products dedicated to regional or/and quality based production which is known for the connection between producer and consumer.

Our literature study (Chapter 2) resulted in a theoretical framework which connects the theories discussed and hence provided a structural understanding of SFSCs (Figure 7 Section 2.5). The structure of the theoretical framework is based on the concept of a business model. It comprises 4 constructs and starts with the ambition of the SFSC initiator. Furthermore, it includes the differentiating characteristics of SFSCs and their organisational formats comprised by respectively the value proposition and value creation. Lastly, their economic performance is included represented by the value capture. Propositions were derived to investigate how the constructs found in literature apply to Dutch SFSCs. Based on the results brought about by the empirical research (Chapter 4), insights are provided to answer our central research question:

CRQ: Which short food supply chain typology can be developed with regard to the Netherlands?

To fulfil, the strategy of a qualitative survey and structured interviews is selected (Chapter 3). This seems to be an appropriate method as the aim is to gain an overall picture (i.e. determination of diversity) of a specific topic which concerns a not very well defined population. Cases were selected by means of theoretical sampling and had to be involved in the (in)direct supply of preferably non-processed food products in the Netherlands, and dedicated to regional food production. Next to these criteria cases were selected using typical SFSC market arrangements found in literature (e.g. farm shop, markets, home delivery services, CSA practices and restaurants etc.). In total 57 interviews are held with the representatives of the chain initiators. The interview protocol is enclosed in appendix II. Open coding is used to analyse the open questions together with statistical tests which are used to analyse the closed questions.

5.1 Classification

To make a classification among SFSCs, conclusions are based on how different constructs found in literature apply to Dutch SFSCs and whether or not the proposed connections could be confirmed (P1-P4). This is presented in Figure 19 in which the green blocks represent a significant relation between the variables (comprised by the theoretical framework). As described in the methodology section, first a classification is made among the type of initiator. Hence, differences and similarities between supplier', distributors' and buyers' SFSCs has been taken into account. Subsequently, SFSCs are classified according to the ambitions behind the SFSCs, their value propositions, value creation and value capture processes.

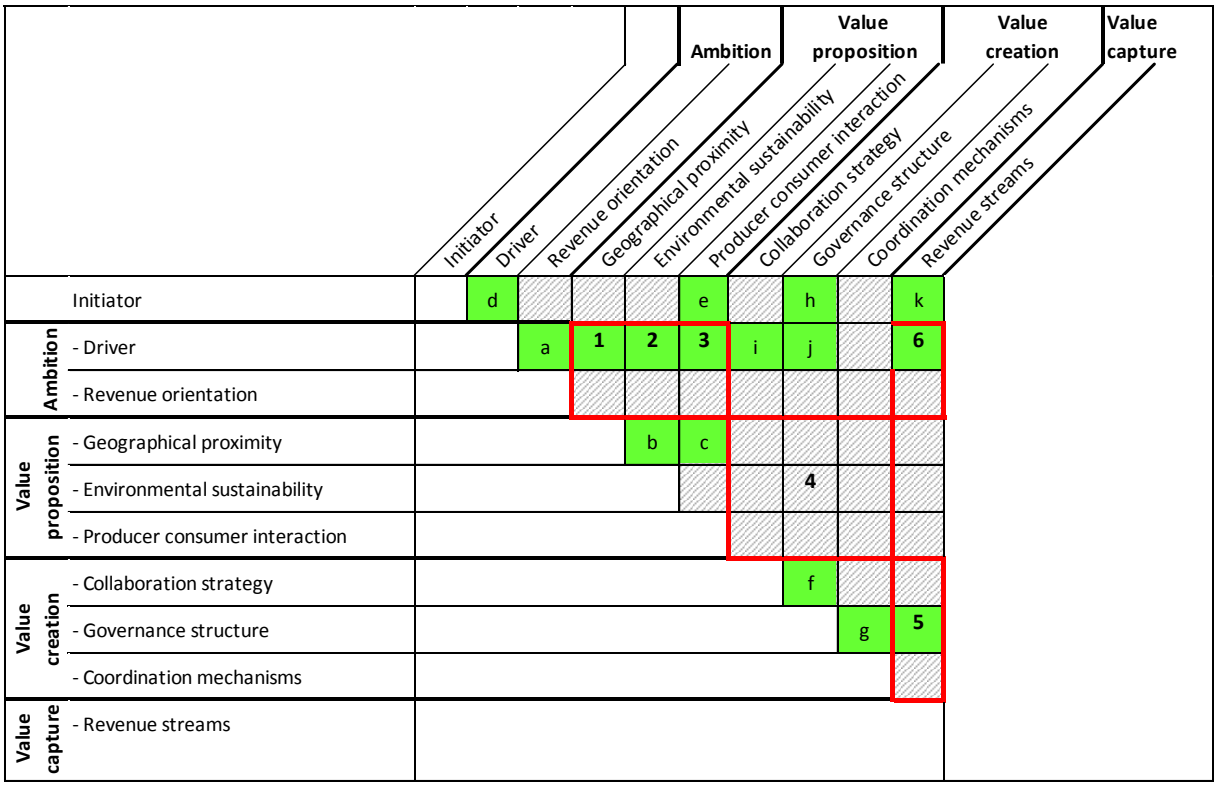


Figure 19: Significant relations between constructs and variables comprised by the theoretical framework.

Ambition

Differences among Dutch SFSCs start with the drivers behind the initiatives and we conclude that they are driven by 8 different drivers (section 4.1.1). The most important driver concerns the aim to improve the connection between producer and consumer. This is inherently related to a cost coverage revenue orientation (relation b). A second important driver involves the aim to increase the economic viability of the business, which refers mostly to suppliers' initiatives. These do not have a cost coverage revenue orientation, but rather aim a stable income or growth (relation b). Distributors' initiatives are mostly driven by the aim to support producers. For buyers' initiatives, apart from the connection between producer and consumer, the quality (e.g. freshness) of food products is an important driver. From the two variables comprising the ambition (driver and revenue orientation) only the driver behind the initiatives significantly relates to SFSCs' value proposition.

Value proposition

The value proposition of SFSCs is comprised by the product characteristics, like the geographical proximity and the environmental sustainability, and the customer relationship comprised by producer-consumer interaction and community-network interaction of the SFSCs.

According to the open answers of respondents geographical proximity is considered as one of the most important competitive advantages (N=18) together with the connection between producer and consumer (N=29) and the quality of the food products (N=20). This confirms the literature as geographical proximity is widely considered as an important characteristic of SFSCs (Tregear, 2011). However, no significant relations could be found between the actual geographical proximity of SFSCs and considering it as an important competitive advantage. Hence, we suggest that most likely geographical proximity is used for marketing purposes regarding the end-consumer (4.2.1).

SFSCs limiting their geographical proximity to a nearby region mostly specify this by the regional identity (e.g. Beemster or Groene Hart) and are driven by establishing a connection between producer and consumer (relation 1).

In line with the geographical proximity of SFSCs, claims are made about the environmental sustainability with regard to reduced food miles as the effect of the short distances between producer and consumer and sustainable production methods (Pretty et al. 2005). However, environmental sustainability of SFSCs as a result of limiting the distribution area does not seem to hold for Dutch SFSCs. There is no significant relation between geographical proximity and the attempt to reduce food miles. In contrast, 40% of the initiatives involve biological production which are less geographical proximate compared to conventional ones as they are likely to widen their proximity (to outside the country). In all probability, the availability of the products and the aim to offer a broad assortment play a role (section 4.2.2).

SFSCs driven by environmental sustainability involve all biological production. SFSCs attempting to reduce the amount of food miles are not driven by the aim to increase initiator businesses' economic viability. This is in contrast to SFSCs driven by producer support whereof reduction of food miles is part of the value proposition (relation 2).

Another characteristic widely considered as differentiating concerns SFSCs' social orientation which is comprised by the customer relationship of SFSCs. In literature this is many times denoted as the reconfiguration of the relation between producers and consumers (Tregear, 2011). Regarding the producer-consumer interaction, the majority (N=34) of SFSCs involves a proximate producer-consumer interaction. This means that most SFSCs does not maintain a direct relationship between producers and consumers, but extents its reach by the use of intermediaries which guarantee the producers' identity (i.e. place of production). For example, home delivery box schemes, buying clubs, producers cooperatives or restaurants. Hence, in most of these initiatives the chain initiator concerns a distributor or a buyer. Also a big part of the initiatives involves a face to face interaction (N=18); a direct relationship in which the producer of the products directly interacts with its consumers. These concern mostly suppliers' initiatives (e.g. farm shops or farmers' markets). In both types of interactions the identity preservation from production place to market is very important according to the representatives of the SFSCs.

SFSCs involving a face to face producer-consumer interaction are mostly driven by the aim to increase economic viability (relation 3). These SFSCs are likely to limit their activities to a certain Dutch region (relation c). SFSCs driven by the support for producers seems to significantly involve a proximate interaction (relation 3)

According to the literature SFSCs could also involve social interaction within communities, bringing consumers and producers in closer proximity together in a network (Feagon, 2007). By using the concept of social capital, we investigated the contribution of Dutch SFSCs and community building efforts of involved businesses. A distinction is made between two functions of social capital proposed by Putnam (2002): bonding and bridging, strengthen and/or widen the community network or in other words the customer base. The Dutch SFSCs which are part of a wider business are highly considered as a contribution towards to reputation of their business and engagement in society. About the function of this contribution (i.e. social capital) whether it bonds or bridges, the representatives are less decisive. Furthermore, on average half of the initiatives organize community building activities. Respondents had difficulties to indicate to what extent these social involvements contributed and their social function (section 4.3.4).

Value creation

Difference could be noticed regarding the value creation activities of Dutch SFSCs. Based on our results we could not confirm our proposition that this is influenced by the value proposition. No significant results between the value creation and value proposition could be found.

SFSCs' geographical proximity, environmental sustainability, producer-consumer interaction and community network interaction does not seem to influence whether or not actors will have a collaboration strategy and their governance structures and coordination mechanisms in use (relation 4).

To create value, one third of the initiatives do have a collaboration strategy with its partners. It is remarkable that this involves all larger companies, which incorporated a SFSC initiative into their business (like retailers and distributors) and initiatives in which the chain initiator comprises more than one firm (e.g. producers' cooperatives, CSA and other types of collaboration structures).

SFSCs driven by the aim to increase the economic viability are less likely to have a collaboration strategy with their chain partners (relation i). Hence, the market is more frequently used to govern transactions (relation j). Furthermore, SFSCs driven by the support for producers are likely to have a collaboration strategy (relation i).

Moreover, it is remarkable that strategic cooperation is in almost all initiatives more important compared to operational cooperation. Hence, long term intentions and relationships between involved partners seem to be very important in the SFSCs (section 4.4.2). Furthermore, it is confirmed that using a collaboration strategy increases the importance of strategic cooperation between the involved partners even more.

For initiatives which do not have a collaboration strategy, the market is a more important governance structure. The market seems to be most important for the supplier initiated SFSCs as 46% of all transactions are governed by using the market. To coordinate these transactions, the price is an important coordination mechanism which confirms the literature. However, rationally and socially related mechanisms are also important (Table 25, Section 4.4.4). Hence, certificates, personal relationships and informal agreements also play a coordinating role when the market is used as governance structure. SFSCs in which the governance structure is characterized by contracts, price is not an important coordination mechanism. This is in contrast to rationally and socially related mechanisms. For initiatives using relation-based alliances as important governance structure, only socially related coordination mechanisms seems to be important.

The more integrated governance structures are, the more important social coordination mechanisms are. Socially oriented coordination mechanisms seem to lower the importance of other coordination mechanisms (relation g).

Based on our literature study we posit that a great deal of trust and the personal relationship decreases the need to use other mechanisms. In sum, SFSCs could be seen as a way of organizing food transactions where involved partners can rely on more informal and socially related governance mechanisms.

Value capture

An important characteristic claimed for SFSCs is their orientation towards economic viability of involved actors. According to the literature study this is especially true for suppliers which could avoid the so called 'price squeeze' (Renting et al. 2003). Based on our results this could be confirmed as the suppliers (both which are initiators and supply other SFSC initiatives) receive at least a comparable but in most cases

higher margin in SFSCs compared to other market channels. For the other type of chain initiators, the situation is different. In distributors' and buyers' initiatives, chain initiators' profit margins are in most cases comparable, but sometimes also lower. These chain initiators indicate a lower margin as products are more expensive to buy and/or bring additional costs and hence generate a lower margin. About the extent to which SFSCs contribute to the total revenues, respondents are divided and based on these results we cannot draw conclusions.

Current challenges
In general the representatives are certainly positive about the development of their initiatives so far. Our results suggest that almost all initiatives realized what should be accomplished according to their initial drivers (Table 36, section 4.5). However, some initiators indicated to foresee a challenge to keep the business viable and ensure the same sales numbers. Another part of the initiators is challenged by issues related to further developments of their initiatives. Concerning most of these initiatives this involve improvements of their own initiative, (e.g. efficiency in logistics or ICT), their current assortment (N=19) and plans to target new market segments.

5.2 Typology of Dutch SFSCs

By examining and assessing our theoretical propositions different clusters of relations appeared. Sufficient numbers of cases show comparable results (i.e. similarities) which allows the researchers to recognize certain patterns regarding SFSC business models. These patterns are derived from the conclusions and analyses presented in the previous sections in which relations between constructs were determined. We developed a typology which reveals 3 different types of SFSCs as presented in the figures below. The first type has the most empirical support. The second type and third type of SFSC comprise sufficient support to consider them as distinctive types, though these involve less significant relations. The normal lines represent significant relations between variables. The broken lines represents the relations which are supposed to be accurate, though could not be confirmed significantly.

The first type of a SFSC presented in Figure 20 concerns a SFSC which is driven by its initiators aim to increase of the economic viability of its business. These types of SFSCs do not have a cost coverage revenue orientation, but rather focus on income and growth. Their value proposition is comprised by a face to face producer-consumer interaction, no attempt to reduce food miles, and it could not be related to their actual geographical proximity. Accordingly, they seem to create predominantly a competitive advantage regarding the producer-consumer interaction, namely a direct interaction. These types of SFSCs are not likely to have a collaboration strategy and hence use preferably the market to govern their transactions with other involved partners. The price is therefore used to coordinate transactions, though we discovered that also rationally and socially related mechanisms are used as coordination mechanisms. After all, it could be stated that these initiators manage to receive a higher profit margin compared to other food supply chains (i.e. mainstream chains). The results from the cases revealed that a large majority (approximately 90%) of SFSCs driven by the aim to increase economic viability and the market as governance structure is used, the initiator's profit margin of involved products is likely to be increased.

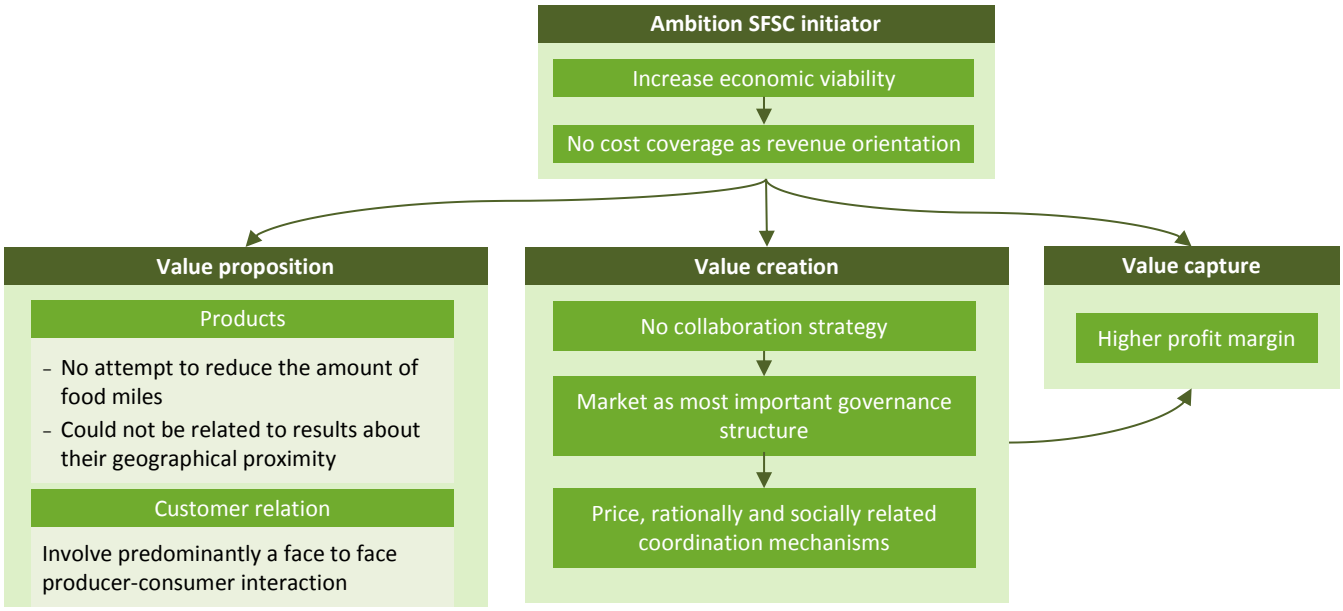


Figure 20: SFSC type driven by the increase of the economic viability of initiator's business.

The second type of SFSC emerges as presented in Figure 21; SFSCs which are driven by the support for producers. These types of SFSCs involve are producer support and could be considered as an attempt to offer alternative (shorter) channels for producers' products. Hence, it is understandable that these initiatives rather have a growth revenue orientation. This is substantiated in their value proposition attempting to reduce the number of food miles and a proximate interaction between producer and consumer. The value creation of these SFSCs could be characterized by a collaboration strategy with involved actors. Subsequently, this involves that more integrated governance structures than the market are used, such as contracts and relation-based alliances. Hence, rational and social mechanisms are important to coordinate and manage transactions. On the profit margin of the chain initiators our results are inconclusive. Nonetheless, we can conclude that the suppliers of these initiatives are likely to receive a higher margin of their food products. The results of our cases involving SFSCs which are producer support driven revealed that a vast majority mentioned to provide suppliers a higher margin.

Third and final, next to these two types of SFSCs it became clear that the connection between producer and consumer is an important characteristic for Dutch SFSCs. Our results revealed that this connection is an important SFSC driver which is substantiated into their value propositions presented in Figure 22 below. However it requires substantial research to further investigate their value creation and value capture. As the connection between producer and consumer is often reflected in the results and shows plausible results regarding other variables, it appears to be considered as a distinctive type.

SFSCs which are driven by the aim to improve the connection between producer and consumer are likely to limit their geographical proximity to a specific Dutch region. They do not admire growth in terms of turnover, but have rather a cost coverage revenue orientation. Furthermore, for initiatives involving a face to face interaction the connection between producer and consumer is an important driver, and it is noticeable that they are likely to limit their activities to a particular Dutch region.

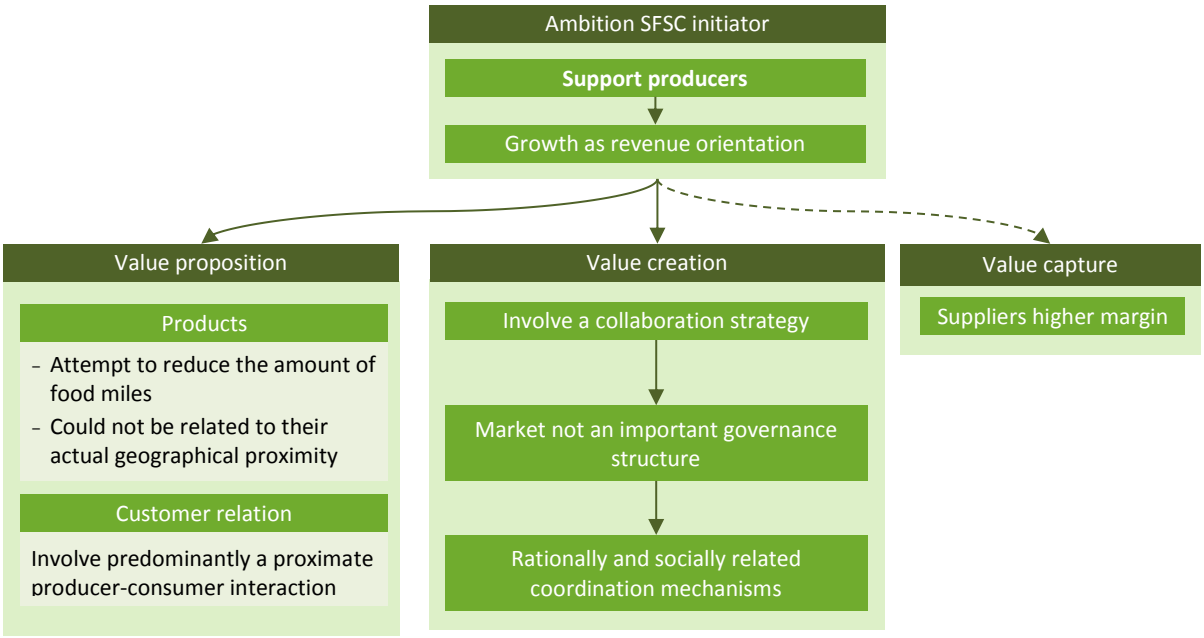


Figure 21: Producer support SFSC type.

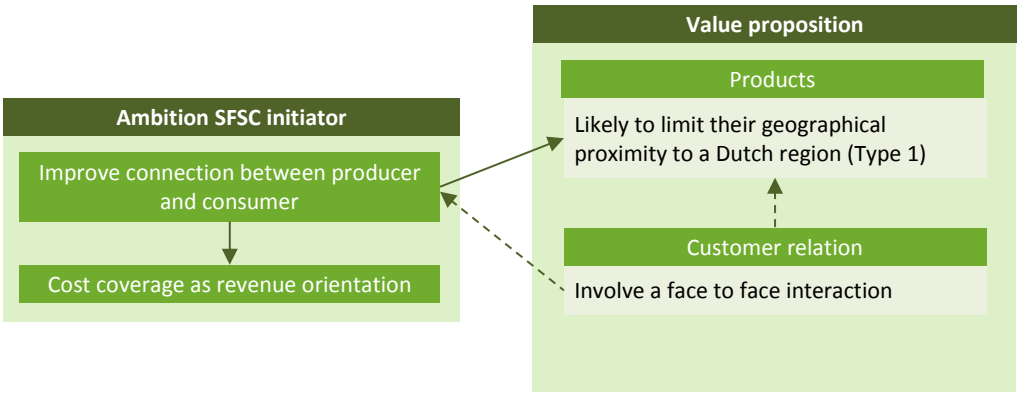


Figure 22: SFSC type driven by the connection between producer and consumer.

To conclude, this research concerned with SFSCs in the Netherlands provided insights in how SFSC are constructed according to characteristics found in the literature. This empirically based typology highlights how SFSCs in practice are very diverse. The different types of SFSCs identified in this research concerns a demonstration of how SFSCs appear to operate in a different way and reveal different business models. Herewith we provide a plausible answer to our research question and could consider this research as a contribution to business oriented SFSC literature.

5.3 Discussion

While the interest in SFSCs and the provision of local food is growing, SFSCs are not widely studied from a business perspective. This research contributes to this deficiency by providing a better understanding of SFSC business models in the Netherlands in 2012. Our results revealed three different types of business models; 1) SFSC driven by the aim to increase the economic viability of the initiator's business, 2) a producer support SFSC and 3) a SFSC in which the connection between producer and consumer takes a central place. Fundamental for these conclusions are a thorough literature study and empirical research in which the relations between their ambition, value proposition, value creation and value capture became clear. This seems to be the first empirically investigation into a typology of SFSC business models.

Apart from these three business models, it was a surprise to conclude that geographical proximity is not an important driver behind Dutch SFSCs, though an important competitive advantage to market their food products. Only the more 'idealistic' SFSCs, in which the connection between producer and consumer is crucial, shows significant results restricted to a limited distribution area. Yet, the question arises whether or not exclusively close geographical proximity is a feasible restriction for SFSCs to realize sufficient producers (suppliers) support.

Furthermore, the claimed environmental sustainability of SFSCs as a result of a limited distribution area does not seem to hold for Dutch SFSCs. We found no significant relation between the attempts to reduce food miles and their geographical proximity. In contrast, biological SFSCs tend to widen their geographical proximity compared to conventional ones. However, it should be noticed that this does not suggest anything about their actual environmental sustainability which was beyond our means of research.

The research showed that Dutch SFSCs rely more on informal and socially related governance mechanisms to create value. It is believed that socially oriented coordination mechanisms lower the importance of other coordination mechanisms. This is found to be characteristic for these SFSCs and hence important to take into account with for example public interventions. It was not expected that SFSCs' value creation is not related to their value propositions. Our results revealed that the organization of SFSCs is not influenced by their competitive advantages. This is rather surprising as literature points out that a business should be organized in such a way it could deliver the required customer value with regard to their value proposition. However, in general the theoretical understanding of the relation between businesses' value proposition and value creation is rather unexplored. It might be that other factors, which have not been included in this research, could investigate whether or not this relationship concerning SFSC business models exists.

Despite its contribution to literature and practice, this research also has its limits. First of all, we should take into account the social desirability in responses. An example can be found in the answers concerning the question about the type of cooperation between chain partners. Almost all respondents indicate to cooperate strategically. As we also found that for many initiators the market is an important governance structure this is rather striking and might be the result of social desirability in answers. Second, some respondents encountered difficulties to provide a plausible answer. This concerns mostly the question about the function of social capital. Our experience revealed that respondents did not have the requested information. Hence, we did not succeed in providing good insights in SFSFs' community networking function. Third, this research faces a limitation concerning the value capture of SFSCs. The fact that respondents had difficulties to provide an answer and sometimes misunderstood the question certainly contributed to it. It is recommended for further research to make a distinction between the economic performance for suppliers and for initiators itself. Fourth, it is important to notice that the included cases may not capture the full range of supply chain configurations in the Netherlands. As mentioned before it

is difficult to indicate upfront the actual research units since there is no overview and initiatives emerge and disappear. However, by including 57 different initiatives spread around the Netherland and the use of theoretical as well as convenient sampling (internet, experts and other documentations), we could rather state we reached a point of data saturation.

5.4 Recommendations

The results that underlie this research could be valuable for SFSC entrepreneurs and the basis of further studies concerning SFSCs. This study identified six recommendations for managerial purposes and three important topics for future research that were beyond the scope of this research project.

Entrepreneurs

First of all, based on our empirical research we could state that SFSC initiators have a good understanding about their ambition and goals they want to achieve. This is most of the time substantiated in a clear value proposition. However, the link towards a clear organization (i.e. value creation) is often missing. Entrepreneurs should be aware that new challenges like establishing a SFSC initiative requires certain organizational competences and could lead to organizational improvisation as a result of ad hoc decisions. As this could influence the viability of the initiative, it is recommended to substance the value creation by taking into account the competitive advantages.

Second, regarding the viability of SFSCs the competitiveness of the business model is crucial. Our typology teaches us that the customer relationship seem to be an import competitive advantage. We also know that differentiation at more than one point increases the viability and chance to be successful. For that reason we recommend entrepreneurs to further develop their competitive advantages and differentiate their value proposition as much as possible. Furthermore, since assumptions about customer demand are fundamental for the value proposition (i.e. assumptions about consumers' internal trade-offs between cost, quality, time and the need to support producers), it is recommended to validate these assumptions as customer preferences changes over time.

Third, SFSC entrepreneurs should be aware of the so called robustness of their business model. Our results show that initiators face certain challenges to ensure growth and continuity in coming years. The question then arises whether or not there is a need to develop or adapt the business model according to macroeconomic changes. This requires a good understanding about the competitive advantages, cooperation and coordination between actors and generated revenues.

Fourth, across the three predominantly types of business models identified, our analysis revealed that there are certain differences among SFSC business models. This has consequences for SFSCs' organization (involved actors) and viability of involved actors. Hence, it could be helpful to learn from each other's' business model and share information to make improvements and tackle certain challenges.

Fifth, our results suggest that the types of SFSCs in which the connection between producer and consumer is essential (aim to socialize communities) tend to be less viable. They seem to face difficulties to substantiate their ambitions and value proposition in clear organizational formats and revenues. For that reason we recommend to find out whether or not this type of business models needs additional support and functions as complements of other business models. Nonetheless, it is recommended to think about partnerships with for example NGO's or government to make this business model viable and realize its ambitions.

Sixth and final, this typology could be considered as the base to develop tailor-made support. It demonstrates how SFSCs could not be considered as the same and hence expose different needs to

accomplish certain goals. These goals could for example refer to topics such as rural development, sustainability or social justice in which SFSC could make a contribution with the right support and guidance.

Future research

First of all, it is recommended to conduct a more differentiated stakeholder analysis and increase the number of cases. This research aimed to present the diversity among SFSCs; a follow up project should elaborate on this by focussing on initiators' networks and their interaction between involved partners.

Second, for researchers there is a need to circumscribe the contexts of the different types of SFSCs within their broader food system, explicitly. A better understanding is required of their interaction with other food chains. The value of such an approach is allowing researchers to search for links between SFSC and desirable public policy objectives. Accordingly, more insight is needed whether or not SFSCs should expand within their food system to accomplish these goals. Furthermore, our developed typology could be the base to demonstrate how SFSCs exhibit different support.

Third, of particular interest is whether these chains are able to secure continuity and growth. Here longitudinal research has to provide insights in their competitive position versus other (mainstream) food chains as well as their development regarding the macroeconomic environment.

I References

ABATEKASSA, G. & PETERSON, H. C. 2011. Access for Local Food through the Conventional Food Supply Chain. *International Food and Agribusiness Management Review,* 14**,** 63-82.

ADAMS, D. C. & SALOIS, M. J. 2010. Local versus organic: A turn in consumer preferences and willingness-to-pay. *Renewable Agriculture and Food Systems,* 25**,** 331-341.

ALLEN, P. 2010. Realizing justice in local food systems. *Cambridge Journal of Regions, Economy and Society,* 3**,** 295-308.

ALLEN, P., FITZSIMMONS, M., GOODMAN, M. & WARNER, K. 2003. Shifting plates in the agrifood landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies,* 19**,** 61-75.

AMIT, R. & ZOTT, C. 2001. Value creation in E-business. *Strategic Management Journal,* 22**,** 493-520.

BALTUSSEN, W. H. M., OOSTERKAMP, E. B., VAN MIL, E. M. & HAGELAAR, G. 2008. *Kansen en belemmeringen in duurzame ketenvorming : primair bedrijf in ketens?,* Den Haag, LEI.

BELAYA, V. & HANF, J. H. 2008. THE "DARK" AND THE "BRIGHT" SIDES OF POWER IN SUPPLY CHAIN NETWORKS. *48th Annual Conference German Association of Agricultural Economists.* Bonn, Germany.

BLOOM, J. D. & HINRICHS, C. C. 2011. Moving local food through conventional food system infrastructure: Value chain framework comparisons and insights. *Renewable Agriculture and Food Systems,* 26**,** 13-23.

BORGEN, S. O. & HEGRENES, A. 2005. How can Transaction Costs Economics add to the Understanding of New Contractual Formats in the Norwegian Agri-food System? *Working Paper No 2005-7.* Oslo: Centre for Food Policy, Norwegian Economics Agricultural Economic Research Institute.

BORN, B. & PURCELL, M. 2006. Avoiding the Local Trap. *Journal of Planning Education and Research,* 26**,** 195-207.

BOYDE, T. 2001. Cusgarne Organics Local Money Flows. *Plugging The Leaks.* New Economics Foundation

BRYMAN, A. 2004. *Social research methods,* Oxford [etc.], Oxford University Press.

CAO, M. & ZHANG, Q. 2011. Supply chain collaboration: Impact on collaborative advantage and firm performance. *Journal of Operations Management,* 29**,** 163-180.

CASADESUS-MASANELL, R. & RICART, J. E. 2010. From Strategy to Business Models and onto Tactics. *Long Range Planning,* 43**,** 195-215.

CHESBROUGH, H. & ROSENBLOOM, R. S. 2002. The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change,* 11**,** 529-555.

COLEY, D., HOWARD, M. & WINTER, M. 2009. Local food, food miles and carbon emissions: A comparison of farm shop and mass distribution approaches. *Food Policy,* 34**,** 150-155.

DELIND, L. B. 2002. Place, work, and civic agriculture: Common fields for cultivation. *Agriculture and Human Values,* 19**,** 217-224.

DESROCHERS, P. & HIROKO, S. 2008. Yes We Have No Bananas: A Critique of the Food Miles Perspective. *Mercatus Policy Series Policy Primer,* 8.

DUPUIS, E. M. & GOODMAN, D. 2005. Should we go "home" to eat?: toward a reflexive politics of localism. *Journal of Rural Studies,* 21**,** 359-371.

EDWARDS-JONES, G. 2010. Does eating local food reduce the environmental impact of food production and enhance consumer health? *Proceedings of the Nutrition Society,* FirstView**,** 1-10.

EDWARDS-JONES, G., MILÀ I CANALS, L., HOUNSOME, N., TRUNINGER, M., KOERBER, G., HOUNSOME, B., CROSS, P., YORK, E. H., HOSPIDO, A., PLASSMANN, K., HARRIS, I. M., EDWARDS, R. T., DAY, G. A. S., TOMOS, A. D., COWELL, S. J. & JONES, D. L. 2008. Testing the assertion that 'local food is best': the challenges of an evidence-based approach. *Trends in Food Science & Technology,* 19**,** 265-274.

FAAN (Facilitating Alternative Agro-Food Networks) 2010. Local Food Systems in Europe – Case studies from five countries and what they imply for policy and practice.

FEAGAN, R. 2007. The place of food: mapping out the 'local' in local food systems. *Progress in Human Geography,* 31**,** 23-42.

FEENSTRA, G. W. 1997. Local food systems and sustainable communities. *American Journal of Alternative Agriculture,* 12**,** 28-36.

FIELD, A. 2009. *Discovering statistics using SPSS (and sex and drugs and rock 'n' roll),* London [etc.], Sage.

FORSMAN, S. & PAANANEN, J. 2004. Value creation in local food supply chains: Market opportunities and challenges. *14th Annual IAMA World Food & Agribusiness Symposium Papers and Presentations,* www.ifama.org/events/conferences/2004/cmsdocs/Forsman1038.pdf.

FU, Y. & PIPLANI, R. 2004. Supply-side collaboration and its value in supply chains. *European Journal of Operational Research,* 152**,** 281-288.
GEORGE, G. & BOCK, A. J. 2011. The Business Model in Practice and its Implications for Entrepreneurship Research. *Entrepreneurship Theory and Practice,* 35**,** 83-111.
GLOWACKI-DUDKA, M., MURRAY, J. & ISAACS, K. P. 2012. Examining social capital within a local food system. *Community Development Journal*.
GOODMAN, D. 2004. Rural Europe Redux? Reflections on Alternative Agro-Food Networks and Paradigm Change. *Sociologia Ruralis,* 44**,** 3-16.
GROOTAERT, C. & BASTELAER, T. V. 2002. Understanding and Measuring Social Capital. A Synthesis of Findings and Recommendations from the Social Capital Initiative. *Forum Series on the Role of Institutions in Promoting Economic Growth (Forum 1: The Institutional Approach to Donor-Facilitated Economic Development Session on Social Capital).* Washington, D.C.
GULATI, R., LAWRENCE, P. R. & PURANAM, P. 2005. Adaptation in vertical relationships: beyond incentive conflict. *Strategic Management Journal,* 26**,** 415-440.
GUPTILL, A. & WILKINS, J. L. 2002. Buying into the food system: Trends in food retailing in the US and implications for local foods. *Agriculture and Human Values,* 19**,** 39-51.
HANF, J. & DAUTZENBERG, K. 2006. A theoretical framework of chain management. *Journal on Chain and Network Science,* 6**,** 79-94.
HEDMAN, J. & KALLING, T. 2003. The business model concept: theoretical underpinnings and empirical illustrations. *European Journal of Information Systems,* 12**,** 49-59.
HENDRIKS-GOOSSENS, V., YPMA, T., LAKNER, D., JAGER, J., VEEN, E., VOSKUILEN, M., SCHOUTEN, A., DE BONT, K., SCHOORLEMMER, H. & VENEMA, G. 2012. *Kijk op multifunctionele landbouw : omzet en impact 2007-2011,* Wageningen, Wageningen UR.
HINRICHS, C. C. 2000. Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies,* 16**,** 295-303.
HINRICHS, C. C. 2003. The practice and politics of food system localization. *Journal of Rural Studies,* 19**,** 33-45.
HOLLOWAY, L., KNEAFSEY, M., VENN, L., COX, R., DOWLER, E. & TUOMAINEN, H. 2007. Possible Food Economies: a Methodological Framework for Exploring Food Production–Consumption Relationships. *Sociologia Ruralis,* 47**,** 1-19.
HUNT, A. R. 2007. Consumer interactions and influences on farmers' market vendors. *Renewable Agriculture and Food Systems,* 22**,** 54-66.
ILBERY, B. & MAYE, D. 2005. Food supply chains and sustainability: evidence from specialist food producers in the Scottish/English borders. *Land Use Policy,* 22**,** 331-344.
ILBERY, B. & MAYE, D. 2006. Retailing local food in the Scottish–English borders: A supply chain perspective. *Geoforum,* 37**,** 352-367.
ILBERY, B., MORRIS, C., BULLER, H., MAYE, D. & KNEAFSEY, M. 2005. Product, Process and Place. *European Urban and Regional Studies,* 12**,** 116-132.
JONES, A. 2002. An Environmental Assessment of Food Supply Chains: A Case Study on Dessert Apples. *Environmental Management,* 30**,** 560-576.
KAY, A. 2006. Social capital, the social economy and community development. *Community Development Journal,* 41**,** 160-173.
KING, R. P., HAND, M. S., DIGIACOMO, G., CLANCY, K., GOMEZ, M. I., HARDESTY, S. D., LEV, L. & MCLAUGHLIN, E. W. 2010. Comparing the structure, size, and performance of local and mainstream food supply chains. *Economic, Research Report No. ERR-99.*
KNEAFSEY, M. 2010. The region in food—important or irrelevant? *Cambridge Journal of Regions, Economy and Society,* 3**,** 177-190.
KORTSTEE, H. J. M., DE HOOP, D. W., IMMINK, V., VAN DER SCHANS, J. W., FISCHER, M. & KROL, M. 2008. *Case, marktcreatie in het proces van professionalisering van producten in het veelzijdig platteland,* Den Haag, LEI.
KREMER, P. & DELIBERTY, T. L. 2011. Local food practices and growing potential: Mapping the case of Philadelphia. *Applied Geography,* 31**,** 1252-1261.
LAMINE, C. 2005. Settling Shared Uncertainties: Local Partnerships Between Producers and Consumers. *Sociologia Ruralis,* 45**,** 324-345.
LANDWINKEL. 2012. *Ontstaan & Missie* [Online]. http://www.landwinkel.nl/ontstaan-missie/. [Accessed 02/03 2012].
LEROUX, M. N., SCHMIT, T. M., ROTH, M. & STREETER, D. H. 2010. Evaluating marketing channel options for small-scale fruit and vegetable producers. *Renewable Agriculture and Food Systems,* 25**,** 16-23.

LITTLE, J., ILBERY, B., WATTS, D., GILG, A. & SIMPSON, S. 2011. Regionalization and the rescaling of agro-food governance: Case study evidence from two English regions. *Political Geography*.
LOW, S. A. & VOGEL, S. 2011. *Direct and Intermediated Marketing of Local Foods in the United States*, United States Department of Agriculture, Economic Research Service.
LYON, F. 2000. Trust, Networks and Norms: The Creation of Social Capital in Agricultural Economies in Ghana. *World Development,* 28**,** 663-681.
LYSON, T. A. 2000. Moving toward civic agriculture. *CHOICES (A publication of the American Agricultural Economics Association),* 3**,** 42-45.
LYSON, T. A., GILLESPIE, G. W. & HILCHEY, D. 1995. Farmers' markets and the local community: Bridging the formal and informal economy. *American Journal of Alternative Agriculture,* 10**,** 108-113.
MARSDEN, T., BANKS, J. & BRISTOW, G. 2000. Food Supply Chain Approaches: Exploring their Role in Rural Development. *Sociologia Ruralis,* 40**,** 424-438.
MARTINEZ, S., HAND, M., DA PRA, M., POLLACK, S., RALSTON, K., SMITH, T., VOGEL, S., CLARK, S., LOHR, L., LOW, S. & NEWMAN, C. 2010. Local Food Systems: Concepts, Impacts, and Issues. *United States Department of Agriculture: Economic Research Report Number 97*.
MATOPOULOS, A., VLACHOPOULOU, M., MANTHOU, V. & MANOS, B. 2007. A conceptual framework for supply chain collaboration: empirical evidence from the agri-food industry. *Supply Chain Management: An International Journal,* 12**,** 177 - 186.
MÉNARD, C. 2004. The Economics of Hybrid Organizations. *Journal of Institutional and Theoretical Economics,* 160**,** 345-376.
MÉNARD, C. & KLEIN, P. G. 2004. Organizational Issues in the Agrifood Sector: Toward a Comparative Approach. *American Journal of Agricultural Economics,* 86**,** 750-755.
MENTZER, J. T., MIN, S. & ZACHARIA, Z. G. 2000. The nature of interfirm partnering in supply chain management. *Journal of Retailing,* 76**,** 549-568.
MORRIS, C. & BULLER, H. 2003. The local food sector: A preliminary assessment of its form and impact in Gloucestershire. *British Food Journal,* 105**,** 559 - 566.
MORRIS, M., SCHINDEHUTTE, M. & ALLEN, J. 2005. The entrepreneur's business model: toward a unified perspective. *Journal of Business Research,* 58**,** 726-735.
MOYNIHAN, C. & MCDONAGH, P. 2008. Alternative Food Networks: What's Alternative? *Australia and New-Zealand Marketing Academy Conference 2008* New South Wales, Australia.
O'REILLY, S., HAINES, M. & ARFINI, F. 2003. Food SME networks: Process and governance - The case of Parma ham. *Journal on Chain and Network Science,* 3**,** 21-32.
OOSTINDIE, H., SEUNEKE, P., VAN BROEKHUIZEN, R., HEGGER, E. & WISKERKE, H. 2011. *Dynamiek en robuustheid van multifunctionele landbouw : rapport onderzoeksfase 2: empirisch onderzoek onder 120 multifunctionele landbouwbedrijven,* Wageningen, Wageningen Universiteit, Leerstoelgroep Rurale Sociologie.
OSTERWALDER, A. 2004. *The Business Model Ontology - a proposition in a design science approach*.
OSTERWALDER, A., PIGNEUR, Y. & TUCCI, C. L. 2005. Clarifying Business Models: Origins, Present, and Future of the Concept. *Communications of the Association for Information Systems,* 16**,** 1-25.
PASCUCCI, S. 2010. Governance structure, perception and innovation in credence food transactions: the role of community networks. *International Journal on Food System Dynamics,* 1**,** 224-236.
PEARSON, D., HENRYKS, J., TROTT, A., JONES, P., PARKER, G., DUMARESQ, D. & DYBALL, R. 2011. Local food: understanding consumer motivations in innovative retail formats. *British Food Journal,* 113**,** 886 - 899.
PETERSON, H. C., WYSOCKI, A. & HARSH, S. B. 2001. Strategic choice along the vertical coordination continuum. *The International Food and Agribusiness Management Review,* 4**,** 149-166.
PIROG, R. & BENJAMIN, A. 2003. Checking the food odometer: Comparing food miles for local versus conventional produce sales to Iowa institutions. *Leopold Center for Sustainable Agriculture.* Ames, Iowa.
PLATFORM-AARDE-BOER-CONSUMENT. 2012. *Samenwerkingsverband Regionale Versketens' opgericht* [Online]. [Accessed 23-01 2012].
PRETTY, J. 2011. Some Benefits and Drawbacks of Local Food Systems: November 2nd 2001. *A Briefing Note for Sustain AgriFood Network.*
PRETTY, J. & WARD, H. 2001. Social Capital and the Environment. *World Development,* 29**,** 209-227.
PRETTY, J. N., BALL, A. S., LANG, T. & MORISON, J. I. L. 2005. Farm costs and food miles: An assessment of the full cost of the UK weekly food basket. *Food Policy,* 30**,** 1-19.
RASMUSSEN, B. 2007. Business Models and the Theory of the Firm *Working Paper.* Victoria University of Technology.

RENTING, H., MARSDEN, T. K. & BANKS, J. 2003. Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning A,* 35**,** 393-411.
RICHARDSON, J. 2008. The business model: an integrative framework for strategy execution. *Strategic Change,* 17**,** 133-144.
ROEST, A., OLTMER, K., JAGER, J., VENEMA, G., VOSKUILEN, M., SCHOORLEMMER, H. & HENDRIKS-GOOSSENS, V. 2010. *: Omzet en omvang,* Den Haag, LEI Wageningen UR.
ROEST, A. E. & SCHOORLEMMER, H. 2010. *Kijk op multifunctionele landbouw : omzet en impact 2007-2009,* Wageningen, Wageningen UR.
RYDIN, Y. & HOLMAN, N. 2004. Re-evaluating the Contribution of Social Capital in Achieving Sustainable Development. *Local Environment,* 9**,** 117-133.
SAGE, C. 2003. Social embeddedness and relations of regard:: alternative 'good food' networks in south-west Ireland. *Journal of Rural Studies,* 19**,** 47-60.
SAUNDERS, C. & HAYES, P. 2007. Air freight transport of fresh fruit and vegetables. *Agribusiness and Economics Research Unit; no. 299.* Report for the International Trade Centre (ITC): Lincoln University.
SCHUKOSKE, J. E. 2000. Community Development Through Gardening. *New York University Journal of Legislation and Public Policy,* 3.
SEDDON, P. & LEWIS, G. 2003. Strategy and Business Models: What's the Difference? *7th Pacific Asia Conference on Information Systems (PACIS).* Adelaide, South Australia.
SHAFER, S. M., SMITH, H. J. & LINDER, J. C. 2005. The power of business models. *Business Horizons,* 48**,** 199-207.
SIMATUPANG, T. & SRIDHARAN, R. 2004. A benchmarking scheme for supply chain collaboration. *Benchmarking: An International Journal,* 11**,** 9 - 30.
SLANGEN, L. H. G., LOUCKS, L. A. & SLANGEN, A. H. L. 2008. *Institutional economics and economic organisation theory : an integrated approach,* Wageningen, Wageningen Academic Publishers.
SMITHERS, J., LAMARCHE, J. & JOSEPH, A. E. 2008. Unpacking the terms of engagement with local food at the Farmers' Market: Insights from Ontario. *Journal of Rural Studies,* 24**,** 337-350.
SONNINO, R. & MARSDEN, T. 2006. Beyond the divide: rethinking relationships between alternative and conventional food networks in Europe. *Journal of Economic Geography,* 6**,** 181-199.
STEVENSON, G. W. & PIROG, R. 2008. Values-Based Supply Chains: Strategies for Agrifood Enterprises-of-the-Middle. *In:* LYSON, T. A., STEVENSON, G. W. & WELSH, R. (eds.) *Food and the Mid-Level Farm.* Cambridge: MIT Press.
SUMELIUS, J. & VESALA, K. M. 2005. *Approaches to Social Sustainability in Alternative Food Systems,* Uppsala, Centre for Sustainable Agriculture Swedish University of Agricultural Sciences.
TREGEAR, A. 2011. Progressing knowledge in alternative and local food networks: Critical reflections and a research agenda. *Journal of Rural Studies,* 27**,** 419-430.
TREGEAR, A., ARFINI, F., BELLETTI, G. & MARESCOTTI, A. 2007. Regional foods and rural development: The role of product qualification. *Journal of Rural Studies,* 23**,** 12-22.
VAN DER PLOEG, J. D., RENTING, H., BRUNORI, G., KNICKEL, K., MANNION, J., MARSDEN, T., DE ROEST, K., SEVILLA-GUZMÁN, E. & VENTURA, F. 2000. Rural Development: From Practices and Policies towards Theory. *Sociologia Ruralis,* 40**,** 391-408.
VENN, L., KNEAFSEY, M., HOLLOWAY, L., COX, R., DOWLER, E. & TUOMAINEN, H. 2006. Researching European 'alternative' food networks: some methodological considerations. *Area,* 38**,** 248-258.
VOORT, M. P. J. V. D., DIJK, S. M. V. & ROEST, A. E. 2011. Het opzetten van korte ketens met streekproducten. Lelystad: PPO - AGV.
WALLGREN, C. 2006. Local or global food markets: A comparison of energy use for transport. *Local Environment: The International Journal of Justice and Sustainability,* 11**,** 233-251.
WATTS, D. C. H., ILBERY, B. & MAYE, D. 2005. Making reconnections in agro-food geography: alternative systems of food provision. *Progress in Human Geography,* 29**,** 22-40.
WEBER, C. L. & MATTHEWS, H. S. 2008. Food-Miles and the Relative Climate Impacts of Food Choices in the United States. *Environmental Science & Technology,* 42**,** 3508-3513.
WESTER, F. & PETERS, V. 2004. *Kwalitatieve analyse : uitgangspunten en procedures,* Bussum, Coutinho.
WHATMORE, S., STASSART, P. & RENTING, H. 2003. What's alternative about alternative food networks? *Environment and Planning A,* 35**,** 389-391.
WITTMAN, H., BECKIE, M. & HERGESHEIMER, C. 2012. Linking Local Food Systems and the Social Economy? Future Roles for Farmers' Markets in Alberta and British Columbia*. *Rural Sociology,* 77**,** 36-61.
WYNEN, E. & VANZETTI, D. 2009. No Through Road: The Limitations of Food Miles. *ADBI Working Paper 118.* Tokyo: Asian Development Bank Institute.

ZOTT, C. & AMIT, R. 2008. The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal,* 29**,** 1-26.
ZOTT, C., AMIT, R. & MASSA, L. 2011. The Business Model: Recent Developments and Future Research. *Journal of Management,* 37**,** 1019-1042.

II Apendices

Appendix I: Case selection

Table 37: References used for case selection.

Reference		Information about:
▪ Website	Dutch Platform Aarde-boer-consument *www.aardeboerconsument.nl*	CSA farms / Consumer buying clubs
	Stichting van Eigen Erf *www.vaneigenerf.nl/verkooppunten*	On farm shops / Home delivery / Farmer markets
	Puur! uit Eten www.puuruiteten.nl/boerenmarkten	Farmers markets
▪ Report	Kortstee et al. (2008) Biological Farmers Market in the Netherlands' (2009)	Distributor cases and buying cases
▪ Experts	*Aide Roest* (LEI) */ Marijke Dijkshoorn* (LEI) */ Jan Willem van der Schans* (LEI) */ Harry Kortstee* (LEI) */ Marjon Krol* (ZLTO)	On farm shops / home delivery Suppliers', distributors' and buyers' initiatives

Appendix II: Questionnaire

Introductie: Vandaag de dag, is er veel gaande op het gebied van zogenaamde 'korte voedselketens'. Verschillende ketenpartijen nemen zeer uiteenlopende initiatieven ketens te verkorten waarbij de herkomst van producten een grote rol speelt. Wageningen Universiteit en het LEI willen een overzicht maken van deze initiatieven, wat mij aanzette tot een scriptie-onderzoek.

Doel: Om verschillende korte voedselketens met elkaar te kunnen vergelijken is gekozen voor een brede aanpak. Uw naam is naar voren gekomen om dit plaatje completer te maken. Als respondent ontvangt u de uitkomsten van het onderzoek, bestaande uit een overzicht van a) korte voedselketens in Nederland oplevert en b) de aanpak van verschillende ketenpartijen.

Om dit te kunnen realiseren, zou ik graag uw activiteiten kort willen bespreken. Volgens mijn informatie bent u actief als/in [*van de accurate informatie voorzien].* Graag zou ik u willen vragen over de onderscheidende factoren ervan, de organisatie, en de resultaten nu en in de toekomst. Het zou ontzettend helpen wanneer ik u hierover een paar vragen kan stellen. De meeste vragen zijn multiple choice en het zal ongeveer 15 minuten duren. Vind u het goed om de vragen te stellen?

Keten : ..... **Locatie / Regio:** .....
Respondent: ..... **Datum:** .....**Telefoonnummer:** .....

INTRODUCTIE: *Eerst enkele vragen over het initiatief en uw ambitie om het te starten*

1) Hoeveel jaar bestaat dit initiatief?

2) Met betrekking tot de voedingsmiddelen kunt u aangeven hoeveel procent van de ketenomzet uit de volgende groepen bestaat? (totaal 100%)

☐ Groente	...%	☐ Fruit	...%
☐ Zuivel	...%	☐ Vlees	...%
☐ Bakkerij en zoetwaren	...%	☐ Andere	...%

3) Wat zette u aan om het initiatief te starten? (Kunt u max. 3 drijfveren of factoren geven)
.....
.....
.....

4) Kunt u ook van de volgende 4 redenen aangeven in welke mate deze van belang waren om het initiatief te starten?

	Niet belangrijk				Erg belangrijk
- Verkleinen van de geografische afstand tussen agrariër en consument	1	2	3	4	5
- Verwachte economische voordelen voor het bedrijf	1	2	3	4	5
- Verwachte voordelen voor het milieu	1	2	3	4	5
- Reputatie / betrokkenheid in de maatschappij	1	2	3	4	5

5) Er zijn meestal investeringen nodig in de opstartfase. Kunt u aangeven wat van de volgende 4 mogelijkheden bij het opstarten de voornaamste ambitie (verwachte rendement) was?
   ☐ Kostendekkend (geen gezinsinkomen)
   ☐ Een stabiel inkomen
   ☐ Zoveel mogelijk groei om kapitaal te verkrijgen (hoger rendement van het geïnvesteerd kapitaal)
   ☐ Zo snel mogelijk de verkoopwaarde vergroten (om het vervolgens te kunnen verkopen)

WAARDE PROPOSITIE

Het doel van het tweede deel is om onderscheidende factoren van het initiatief boven tafel te halen.

---

6) Welke concurrerend voordelen heeft uw keten?
   i. .....
   ii. .....
   iii. .....

7) Komen de voedingsproducten (m.b.t. het initiatief) uit Nederland? Ja / Nee
   Indien een supplier's initiatief: Hoeveel % van het totale omzet is eigen productie? .....%

8) Komen de voedingsproducten uit een bepaalde regio? Ja / Nee
   (binnen een bepaalde (gelimiteerde) regio geproduceerd en verspreid?
   Zo ja, kunt u dit aangeven met behulp van een actie radius of specifieke regio?
   ☐ …… Km ☐.....Regio

9) Zijn de voedingsmiddelen biologisch geproduceerd? Ja / Nee
   Zo ja, welke?
   ☐ EKO ☐ Milieu keurmerk ☐ Beter leven ☐ Bio+ ☐ Anders .....

10) Heeft het initiatief expliciet het doel om het aantal voedselkilometers te reduceren? Ja / Nee
    Zo ja, waaruit blijkt dit? .....

11) Kunt u aangeven in welke mate u het eens of oneens bent met de volgende uitspraak?

	Totaal oneens				Totaal eens
Voor het initiatief is het erg belangrijk om de herkomst van de voedselproducten te communiceren naar de eindconsument	1	2	3	4	5

12) Kunt u aangeven hoe de producent en eindconsument communiceren?
    ☐ Niet
    ☐ Één op één (Face to face, mail, internet)
    ☐ Via tussenschakels die de identiteit van de producent garanderen
    ☐ Via tussenschakels en het gebruik van etiketten en certificaten

Alleen indien het initiatief een deel is van de bedrijfsomzet betreft

13a) Op de schaal van 5, kunt u aangeven in welke mate u het eens bent met de volgende uitspraken?

	Totaal oneens				Totaal eens
- Het initiatief heeft bijgedragen aan de reputatie van het bedrijf (betrokkenheid van het bedrijf met de maatschappij)	1	2	3	4	5
- Het initiatief heeft de band met het klantenbestand sterker gemaakt	1	2	3	4	5
- Het initiatief heeft het klantenbestand uitgebreid	1	2	3	4	5

Alleen indien het bedrijf alleen uit het initiatief bestaat

14b) Heeft het bedrijf activiteiten (in samenwerking met andere organisaties) ondernomen in het belang voor de maatschappij / gemeenschap? Ja / Nee

Zo ja, welke?.....

14c) Kunt u aangeven in welke mate u het eens of oneens bent met de volgende uitspraken?

	Totaal oneens				Totaal eens
- Het ondernemen van deze activiteiten in het belang van de maatschappij heeft de band met het klantenbestand versterkt.	1	2	3	4	5
- Het ondernemen van deze activiteiten in het belang van de maatschappij heeft het klantenbestand uitgebreid.	1	2	3	4	5

WAARDE CREATIE

Het doel van het derde deel is om een indicatie te krijgen van de organisatiestructuur van het initiatief

---

Alleen indien een direct-consumer SFSC:

15) Hebben consumenten (leden) formeel invloed in de besluitvorming van het initiatief? Ja / Nee

Zo ja, op welke manier?.....

16) Welke ketenpartners zijn betrokken in het initiatief? En kunt u deze naar mate van belangrijkheid ordenen?

☐ Toeleverancier	....%	☐ Afnemer	....%
☐ Distributeur	....%	☐ Logistieke partner	....%
☐ Anders.....	....%		

17) Is de strategie van het initiatief samen met de ketenpartners geformuleerd? Ja / Nee

18) Kunt u aangeven in welke mate u het eens of oneens bent met de volgende uitspraken?

	Totaal oneens				Totaal eens
- De samenwerking met ketenpartners is gebaseerd op korte termijn besluiten	1	2	3	4	5
- De samenwerking met ketenpartners is gebaseerd op lange termijn bedoelingen	1	2	3	4	5

19) Kunt u aangeven hoe vraag en aanbod tussen de ketenpartners georganiseerd wordt (door 100 punten te vedelen over de volgende categorieën)?

☐ De vrije markt (geen contract)	....%
☐ Gespecificeerde contracten	....%
☐ Relatie gebaseerde akkoorden	....%
☐ Een formele organisatie en gedeeld kapitaal (kapitaal gebaseerd akkoord)	....%
☐ Anders.....	....%

20) Naar de mate van belangrijkheid kunt u voor elk van de volgende 4 vormen aangeven in welke mate dat ze aanwezig zijn in het management van de transacties tussen?

	Niet belangrijk				Erg belangrijk
- De prijs	1	2	3	4	5
- Certificaten en garanties	1	2	3	4	5
- De persoonlijke relatie	1	2	3	4	5
- The organisatie (autoriteit)	1	2	3	4	5

WAARDE TOE-EIGENING

Dan nu de slotvragen over de warde-toe-eigening van het initiatief en de toekomstige uitdagingen.

21) Kunt u van de volgende 4 vormen in procenten de imkomensbijdrage aangeven?

- ☐ Verkoop ....%
- ☐ Lidmaatschap ....%
- ☐ Subsidies ....%
- ☐ Anders..... ....%

Alleen indien het initiatief een deel is van de bedrijfsomzet betreft

22) Is de productmarge die u ontvangt hoger in vergelijking met langere ketens? Ja/Vergelijkbaar/Nee
Zo ja, kunt u het verschil in marge met een percentage aangeven? .....%

23) Welk percentage van het totale <u>volume</u> is gerelateerd aan de korte keten? .....%

24) Hoeveel wordt er in het initiatief <u>omgezet</u> vergeleken met de totale opbrengsten? .....%

25) Wat zijn op dit moment de grootste uitdagingen voor het initiatief?

26) Op een schaal van 5, ,kunt u aangeven in welke mate de (3) ambities die u aan het begin van het initiatief(interview) had, zijn gerealiseerd?

	Niet gerealiseerd				Totaal gerealiseerd
1).....	1	2	3	4	5
2).....	1	2	3	4	5
3).....	1	2	3	4	5

27) Tenslotte de slotvraag, welke ontwikkeling voorziet u in de komende drie jaar voor het initiatief (de volgende stappen)?

EINDE VAN HET INTERVIEW

Dit is het einde van het interview. Heeft u nog suggesties ? Hartelijk bedankt voor uw bijdrage en medewerking. Wanneer u de resultaten van het onderzoek wilt ontvangen, dan sturen we ze deze zomer naar u.

Appendix III: List of respondents

Type of SFSC initiative	Name	Respresentative
Farm shops	Boerderijwinkel Tromp	Owner
	Boerderijwinkel Paulussen	Owner
	Boerderijwinkel 't Zand	Owner
	Boerderijwinkel Molema	Owner
	Nieuw Slagmaat	Owner
	Roosjes Boerderijwinkel	Owner
	Boerderijwinkel Lelystad	Owner
	Boerderijwinkel Verhagen Fruit	Owner
Farmers market	De Versman	Initiator of company
	De Vierslag	Owner farm
	De Schoffel	Owner farm
	Tuinderij Rafelder	Owner farm
	Zuidermrkt	Member of board
	Groene Hart Fruit	Owner farm
	Fruitboerderij Oold Bleank	Owner farm
Restaurant 6	De Hofkeamer	Owner
	Buitenlust	Owner
	Eetlokaal de Boer	Owner
	Heinde en Ver	Owner
	De Kas	Owner
	De Rietstulp	Owner
Retail 5	Hoogvliet	Fresh purchaser
	Jumbo (Willem en drees)	Fresh purchaser
	Spar (spart uit de buurt)	Project manager
	Agrimarkt	Fresh producer
	Buys en Co	Owner
Broker 11	Sligro Eerlijk en Heerlijk	Project manager
	Willem en Drees	Owner
	Vers van Hier	Initiator
	24/7 DELI XL	Project manager
	Grootmoeders Keuken	Owner
	Zeeuwse Streekproducten	Owner
	Streekselecties	Third person
	Maas en zn	Owner
	Groene hart Cooperatie	Owner
	Oregional	Project manager
	Groene Hart Marktwagen	Owner
Home delivery 11	De grote verleiding	Owner
	Landzicht	Owner
	de Streekbox	Owner
	Kistje vol Smaak	Owner
	EKO-twente	Owner
	de Krat	Owner
	Ruud Maaz	Owner
	Vers van de Kweker	Owner
	Biologisch Goed	Owner
	de Hofwebwinkel	Owner
	Groene Spoor	Owner
CSA 6	De Nieuwe Akker	Owner
	Hof van Leiden	Owner
	de Oosterwaarde	Owner
	De Vrije Akker	Owner

	De Nieuwe Ronde	Owner
	De Groene Stap	Owner
Buying club 3	VersVoko Groningen	Owner
	Voedselkollektief de Koppelpoort	Owner
	Goei Eete	Owner