

# Master Thesis

Critical Success Factors for Sustainable Competitive Advantage in Fresh Produce Cooperatives



# MSc Thesis

## Critical Success Factors for Sustainable Competitive Advantage in Fresh Produce Cooperatives

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I hope everyone will enjoy reading this research paper

Jeroen Lamers

Wageningen, June 2012

## Management Summary

In the Dutch horticulture sector some changes have taken place over the last ten years. Because of the rapidly changing characteristics it is a hard market to operate successfully in. Cooperatives on fresh produce vegetables, on which the focus is within this research, have to compete in this difficult market. In this market FresQ is an example of a cooperative that seem to be quite successful.

The aim of this study is to find out what the success factors are for a sustainable competitive advantage of a fresh produce cooperative. Special attention is given to the impact of the factors organizational structure, innovation, entrepreneurship and social capital which are factors that we assume to influence the sustainable competitive advantage. The main research question that is going to be answered is; *Which critical success factors contribute to the sustainable competitive advantage of the fresh produce cooperative FresQ?*

A literature study is carried out which consists of three parts. In the first part the term sustainable competitive advantage is introduced and it is explained how it can be measured. A sustainable competitive advantage follows from a competitive advantage. A competitive advantage will be achieved when an organization or firm is implementing a new strategy which creates value and which is not present at potential competitors (Barney, 1991). An competitive advantages becomes sustainable when it is not possible for competitors to receive the same benefits due to duplication of strategies.

Both are based on the way that resources are used within a firm. A resource can lead to a competitive advantage when it delivers value to a firm and when it is rare. A sustainable competitive advantage can be built on top of a competitive advantage when a resource is also inimitable, not substitutable and is immobile.

Since this research is on cooperatives in the second part of the literature study the cooperative and its characteristics are introduced. A cooperative is a non-governmental type of business which is aiming for-profit which consists of individuals firms and in this case growers (Birchall, 2004). A cooperative has several characteristics; there is voluntary membership, it supports democratic governance principles (one-member one-vote), and it is established in for the interests of the members (Birchall, 2004). Another characteristic of the cooperative is that the members have different roles within the cooperative. Finally there are three types of relationships between a cooperative and its members: a transaction relationship, financial relationship and a controlling relationship.

In the final part of the literature study the factors organizational structure, innovation, entrepreneurship and social capital are elaborated and it is explained how their strength can be measured according to literature. For all the factors an assessment model has been created by which it is made clear which independent variables are used to evaluate their individual strengths.

Organizational structure is evaluated on the following indicators which consists themselves of different independent variables: organizational structure characteristics the way that is dealt with typical organizational structure dilemmas and on the structural characteristics of the network.

For Innovation the following indicators will be used: stifling factors of innovation, the innovation climate and other innovation measures.

The strength of Entrepreneurship will be assessed on the characteristics of an entrepreneur. These are need for achievement, need for autonomy, risk taking ability and creativity.

Finally, Social Capital will be assessed using the variables; trust, reciprocity and the strength of the cooperative network.

Based on the literature study a theoretical framework was established which was composed of the different assessment models per factor. The theoretical framework can be seen as a flowchart which

consists of four steps. In the first step the strength of the four factors is evaluated, to decide whether the factor is a core competence or not. If evaluated positively a factor continues to the following step, which is called the competitive advantage phase. Here it is decided per factor whether the factor has value and is rare. If so the factor leads to a competitive advantage. When evaluated positively in the previous step a factor continues to the sustainability phase, in which it is decided per factor whether it is inimitable, non-substitutable and immobile for competitors. If so the factor leads to a sustainable competitive advantage. In the final step the relative importance of the different factors is evaluated. Before this flowchart can be put into action to evaluate the success factors of a fresh produce cooperative first the different variables must be operationalized. The literature study and the operationalization of the theoretical framework were used as input for expert interviews. These interviews were part of the case study on FresQ. In a total of five expert interviews, industry experts with different backgrounds were asked to evaluate and compare FresQ with its competitors based on the independent variables related to the flowchart.

The results showed that the factors organizational structure, innovation, entrepreneurship and innovation were all evaluated strong enough in step one of the flowchart to be potential drivers of sustainable competitive advantage. In the second step it was decided per factor whether it led to a competitive advantage. Since in the literature study the relationship between the factors and value was described, we assumed that all the factors delivered value. From the results on innovation it could be concluded that the innovation climate and the process innovations were rare, but product innovation so innovation was the same as at competitors. Thus innovation can only partly be seen as a competitive advantage of FresQ. Social capital as it could be seen at FresQ was labeled as rare by the experts. Trust within the cooperative was higher and long term relationships in a strong network did exist. Furthermore the organizational structure as seen within FresQ was different then for the competitive cooperatives. Especially the informal relationship and the way they deal with the organizational structure dilemmas was rare according to the experts. Finally the entrepreneurial mindset of the FresQ growers was evaluated as rare in comparison to the mindset of competitors. FresQ growers had higher need for achievement, had more risk taking ability and strived for more autonomy in their organizations. This means that organizational structure, social capital and entrepreneurship can be seen as factors that lead to a competitive advantage for FresQ.

In the third step for the factors it was assessed whether they contributed to a sustainable competitive advantage of FresQ. Innovation as a whole was evaluated by the experts as relatively good imitable, substitutes were mentioned and innovation at FresQ was relatively mobile. Evidently innovation is not a convincing success factor. The actual innovations on the other hand were indeed evaluated as hard to imitate, difficult to substitute and immobile. Therefore only the innovation climate can be seen as a factor for sustainable competitive advantages. The three other factors; organizational structure, entrepreneurship and social capital at FresQ were evaluated as not imitable, hard to substitute and immobile so these factors can be seen as drivers of the sustainable competitive advantage for FresQ.

From the final step of the flowchart it can be concluded that entrepreneurship and social capital seem to have the biggest influence on the sustainable competitive advantage of FresQ. It is assumed that this is possible because of a favorable organizational structure, which is facilitating the entrepreneurship and social capital well. So the well suited organizational structure can be seen as a critical success factor too. The unique history of FresQ, a cooperative that started from scratch by growers with shared beliefs, is of high importance of this success. Entrepreneurs were offered the necessary space to experiment and thrive on their business ideas to become successful. Because of the offered decision space and the shared beliefs amongst the cooperative members a stable organization was established in which social capital could be build. It can be concluded that it is the mix of factors that created the success for FresQ. A mix that cannot be used to generalize towards other fresh produce cooperatives.



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## 1. Introduction

Over the past decades tremendous changes within the Dutch horticultural sector became visible such as: growing retail power, growing business size and changes within the supply chain. As a result fresh produce cooperatives shifted from being a sales organization for producers towards a supply chain partner for retail customers and from providing market information to producers towards the role of facilitator of product and process innovation at the member farms. Due to these changes some small cooperatives focused on innovation and convenience, targeting the high quality markets of retailers. Because of the rapidly changing characteristics it is a hard market to operate successfully in. FresQ a cooperative which will be presented in the next paragraph is an example of a cooperative which dealt with these changes in a successful way.

### The case of FresQ

Several small cooperatives jointly established a new cooperative called FresQ, at first this cooperative only provided quality control and administrative services, but after some years it became their joint marketing organization. FresQ is a cooperative situated in the Netherlands that markets glasshouse horticultural products such as tomatoes, cherry tomatoes and peppers. Most members are located in the Westland area a famous Dutch horticultural area. FresQ focuses on the high quality segment of the market. The cooperative is relatively small with 79 members but has shown high growth figures in the past years. During the period of 2001 until 2010 turnover grew from 130 million euro to 480 million euro while the production area increased from 250 hectares to 750 hectares (FresQ, 2010). In the same period the number of members only grew from 71 to 79. This research tries to explain how this enormous growth could take place and why FresQ is so successful in this hard market. This will be investigated by researching the impact of some striking characteristics of FresQ.

Some striking characteristics of FresQ can be seen which might be the drivers of their success. One of the striking characteristics of FresQ is that its members seem to be among the most innovative growers. FresQ introduced a lot of new varieties of tomatoes and peppers, with all kinds of colors and shapes. Supply chains can encourage innovation through the free flow of ideas that can enhance value adding through the network (Svensson, 2002). The second characteristic is that the members of FresQ seem to be very entrepreneurial. These producers have not only been entrepreneurs in production, but also in marketing they have for example established their own packaging facilities. They have always complied with the most strict public and private quality standards, and have organized internal monitor and control systems, in order to be able to assure quality towards their high-demanding customers.

The third characteristic is the organizational structure. First of all the fact that FresQ is a cooperative influences the organizational structure. A cooperative can be defined as “a unique type of non-government for-profit business entity comprised of individuals (or other businesses) characterized by voluntary membership, based on democratic governance principles (one-member one-vote), and established for the benefit of its members” (Prakash, 2003; Birchall, 2004). A cooperative can be viewed as either a supply chain network where sustainability depends on how well the network is configured (Garcia-Perez and Garcia-Martinez, 2007). Configuration varies by industry sector (Giannakas and Fulton, 2005) and in terms of formality and level of control (Desrochers and Fischer, 2005). This shows the potential impact of the organizational structure on sustainable competitive advantage. Cooperatives have some very specific problem such as free-riding, short term horizons, conflicts over shareholder rights, misalignment of member and cooperative interest and agency cost associated with the management of a complex network organization (Cook, 1995). Looking at their turnover figures it seems that FresQ is handling these organizational problems very well.

FresQ can be considered as a network organization, where a combination of ownership relationships, professional network relationships, and even social relationships has facilitated innovation and growth. FresQ is not a federated cooperative; members are both part of the cooperative but also part of a smaller producer group which are formed on the basis of crop variety. Thus, pepper growers have their own group, tomato-on-the-vine growers have their own group etc. These groupings were very important for the development of the product and marketing innovation. FresQ members have made optimal use of the subsidiary principle; some activities are done at product group level such as sales, other activities take place at FresQ cooperative level.

The last characteristic of FresQ is the presumable high amount of social capital. Where norms, trust and close relationships between the members seem to play an important role. FresQ is a small cooperative where all members know each other which seems to increase the level of trust in the organization. Every group has a representative in the board of directors which is also important for trust. Another organizational innovation is the decision, right from the start, not to use the one-member-one-vote system, but to distribute votes according to turnover. Connected to this is the interaction between the members and the cooperative. Many co-ops suffer from a divergence between member and co-op interests (Fulton and Giannakas, 2001). Trust and communication seem to be crucial for the sustainability of a cooperative, but is this also the case for the successful cooperative FresQ..

Because of the changing market in which the fresh produce cooperatives are active it is important to stay competitive. Continuous adaption to market circumstances is therefore necessary to remain successful. A tool to measure competitiveness on the long term is sustainable competitive advantage. Sustainable competitive advantage (SCA) means that a firm consistently produces products and/or delivery systems with attributes which correspond to the key buying criteria for the majority of the customers in their targeted market (Hall, 1993). This tool will be used to investigate the successfulness of the striking characteristics of FresQ.

This study about FresQ will be an input for a big study about cooperatives which is named *Sustainable Cooperative Enterprise: An Investigation into the Factors Influencing the Sustainability and Competitiveness of Cooperative Enterprises*". A study funded by the Australia Research Council (ARC) in conjunction with Co-operatives WA, Co-operative Bulk Handling (CBH) and the Capricorn Society. The aims of this study are to understand the factors influencing the sustainability and competitiveness of cooperatives. This explains why the focus during this research will be on factors explaining sustainability and competitiveness. Within this research this will be called; sustainable competitive advantage.

For the research proposal the structure of Verschuren en Doorewaard (2005) will be followed. The research proposal starts with the conceptual research design and the second chapter includes the technical research design. Within the research strategy the case study structures of Yin and de Vaas will be included into the structure of Verschuren en Doorewaard. According to Verschuren and Doorewaard (2005) the conceptual research design has the main function to guide the execution of the project. The conceptual design will define the basic outlines of the research. It contains the overall purpose of the study, which steps need to be taken to fulfill this purpose and which research questions need to be answered to come to an conclusion. The technical research design describes what has to be done in order to formulate an adequate answer to the questions detailed in the research issue and how this can be done within a reasonable amount of time (Verschuren and Doorewaard 2005).

## 1.1. Conceptual research design

Within the conceptual research design the basics of the research will be defined. It consists of the following parts: the research objective, the research framework, the research issue and the key concepts.

### 1.1.1. Research objective

The research objective contains the overall purpose and aim of the study: ‘what do we want to achieve?’ (Verschuren & Doorewaard, 2005).

**The main aim** of the study is to find out what are success factors for a sustainable competitive advantage of a fresh produce cooperative. By focusing on the factors: organizational structure, innovation, entrepreneurship and social capital. Through relating this case study to literature on success factors for cooperatives we aim to find some general insights about what determines sustainable success of a fresh produce cooperative

Related to the main aim are sub aims which are conducted as a support for the main aim of this study.

**This sub aims are:**

- What is the impact of the industry environment on the sustainable competitive advantage of the cooperative of FresQ
- Gaining insight in the relationship between cooperatives and sustainable competitive advantage
- Find out what is the importance/impact of organizational structure on sustainable competitive advantage of cooperatives
- Find out what is the importance/impact of social capital on sustainable competitive advantage of cooperatives
- Find out what is the importance/impact of innovation on sustainable competitive advantage of cooperatives
- Find out what is the importance/impact of entrepreneurship on sustainable competitive advantage of cooperatives
- How does the interaction between organizational structure, social capital, innovation and entrepreneurship influence the sustainable competitive advantage of a cooperative

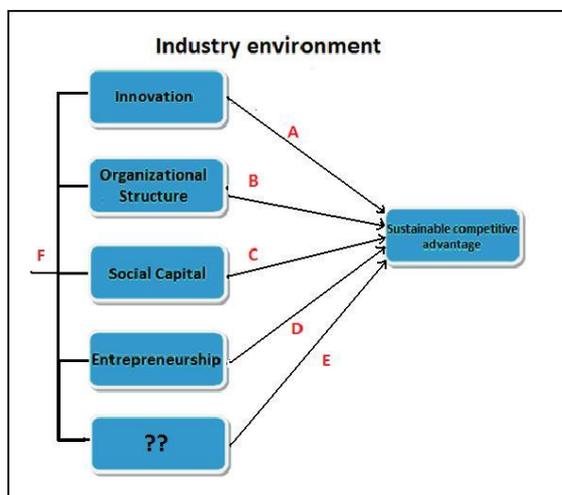


Figure 1.1: Conceptual model

Figure 1.1 on the previous page can be seen as a graphic representation of the aims from this research. This Figure shows which relationships will be investigated during this research, these relationships are represented by the arrows A to E. Where E stands for the relationship of other factors which can possibly be found in literature during this research. Arrow F stands for the interaction between the four different factors that are being investigated. Furthermore the environment in which the fresh produce cooperatives are active will be investigated.

### 1.1.2. Research framework

Several steps have to be taken to fulfill the purpose of this study. The research framework gives an overview of these steps and as a result of this framework research questions will be formulated (Verschuren & Doorewaard, 2005).

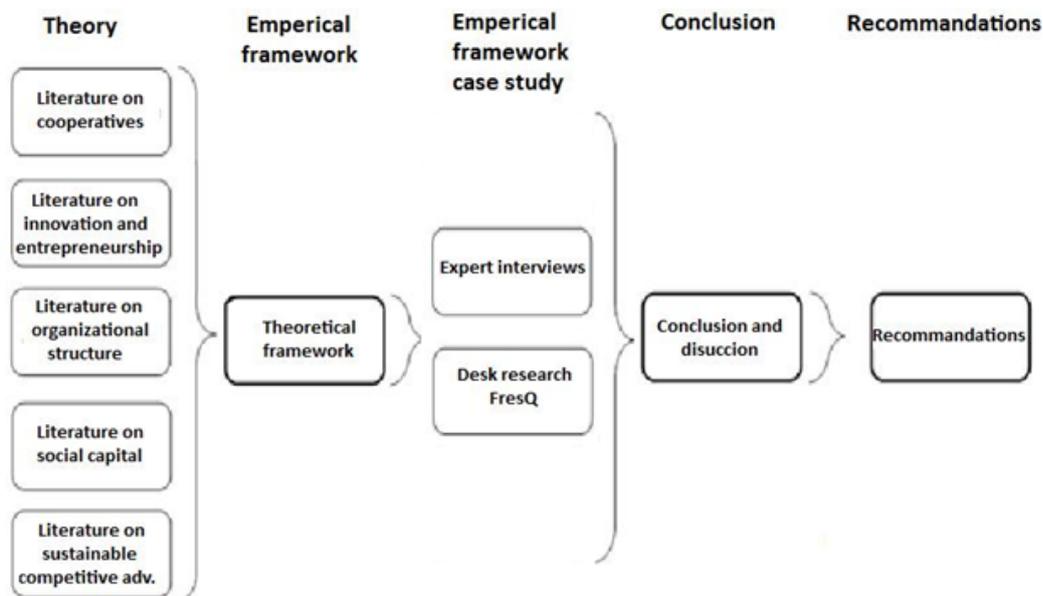


Figure 1.2: The research framework

The research framework can be seen as a funnel to process all the gathered information into an underpinned analysis about the sustainability and competitiveness of a cooperative. It starts with a broad literature review on the five theoretical subjects introduced in the research objective; cooperatives, innovation, organizational structure, sustainability and competitiveness. First a basic overview about cooperatives and its classifications will be provided, followed by literature about the arrows A to D presented in Figure 1.1. This means that literature about innovation, entrepreneurship, organization structure and social capital will be connected to the literature about sustainable competitive advantage. From the literature on sustainable competitive advantage possible other factors can be derived. This all with a focus on structures that are applicable on cooperatives. This will result in the creation of a theoretical framework. After the construction of the theoretical framework the empirical study can be carried out.

The empirical framework is the second constriction in the funnel applied for this research. The research framework can in this research seen as the case study framework. It consists of two major activities namely; interviews with expert within the field and a desk research with help of the expert interviews a comparison of the situation of FresQ with other cooperatives within the sector will be provided. In this way it can be checked whether the sustainable competitive advantage is really different from other cooperatives because of the factors identified in the literature. Because it is an embedded case study more data collection methods are needed. Within the research strategy this

will be explained in more detail. The desk research of FresQ has the aim to sort out how FresQ is organized with special attention to the organizational structure and innovation.

### 1.1.3. Research questions

In order to fulfill the aim of this study it is important to clarify the useful knowledge and information for realizing the objective. In the research issue a central research question and several sub questions are formulated, the sub questions should provide the information that combined lead to an answer to the central question (Verschuren & Doorewaard, 2005).

The central question is:

*Which critical success factors contribute to the sustainable competitive advantage of the fresh produce cooperative FresQ?*

The sub questions are:

1. What is sustainable competitive advantage and how can it be measured?
2. What is a cooperative and what are its characteristics according to literature?
3. What factors affect sustainable competitive advantage of a cooperative? With special attention to the factors:
  - a) Organizational structure
  - b) Innovation
  - c) Entrepreneurship
  - d) Social Capital
  - e) Other factors
4. How do the factors a - e affect sustainable competitive advantage of FresQ?

## 1.2. Technical research design

The technical research design consists of the following parts: the research strategy, the case study strategy, the research planning and finally the research.

### 1.2.1. Research strategy

This section, the research strategy, specifies how the research will be carried out, whether it is a quantitative or a qualitative research and what the strategy of information gathering is (Verschuren & Doorewaard, 2005).

A theoretical analysis on cooperatives and organizational structure, innovation, entrepreneurship social capital, and sustainable competitive advantage gives insight on theories but no insight on experiences and the specific case of FresQ, therefore it is important to use more than a literature research in order to establish a concise answer to the central question and some sub questions. In this research a case study will be used to provide this in-depth view. Due to the combination of a literature study and a case study, the overall validity of the research will increase. Collecting and analyzing information from case studies must be guided by theory (de Vaus, 2001).

Accordingly, the first part of the research is a literature study and this knowledge will be gained from scientific sources. The literature about the relationships between the possible success factors with sustainable competitive advantage will be reviewed. These findings will be used to develop a theoretical framework.

The second part of the research will be the case study, as a case study provides a deep insight on the subject, qualitative analysis are mostly used in this research project. The method of de Vaus (de

Vaus, 2001) and Yin (Yin, 1989) will be used. De Vaus stated: Since many cases will consist of different elements, different methods of data collection may be needed (de Vaus, 2001). In the next paragraphs the case study to be executed will be explained in more detail.

Yin (1989) suggests that there are at least six alternative compositional structures for the design of a case study and for this case study the Linear analytic structure is used. This type of structure is the standard approach for research reports. In most cases it follows more or less a similar structure as a scientific journal article. Key topics or sections will be a statement of the problem and research questions, the methodology employed findings from the analysis and conclusions with suggestions for future research (Yin, 1989).

For this case study design the book of de Vaus will be used which is closely related to the method of Yin. Within this book a lot of choices have to be made to clarify the case study, these choices will be explained in this part of the research proposal. A case is an object of study, it is the unit of analyses (de Vaus, 2001). In this case the unit of analysis is the cooperative FresQ. A first distinction which has to be made is between a holistic case and an embedded case. These terms are introduced by Yin (Yin, 1989). A holistic case is a case as a whole while an embedded case is a case with various levels or components (de Vaus, 2001). The case of FresQ can be seen as an embedded case, since a full picture can only be obtained if information from a wide range of elements will be collected. Embedded units are the board of directors and the different producer groups that are very specific at FresQ. Since many cases will consist of different elements different methods of data collection may be required for the different elements (de Vaus, 2001).

Furthermore a distinction between explanatory cases and descriptive cases has to be made. An explanatory case study tries to achieve more complex and fuller explanations of phenomena. While a descriptive case study only describes what can be seen (de Vaus, 2001). This case will be an explanatory case. Since case study research in social sciences has to have a theoretical dimension, because it otherwise has no further value for wider generalization. In the case study of FresQ this means that the relationship between potential success factors such as organizational structures, innovation, entrepreneurship and social capital related to sustainable competitive advantage of a fresh produce cooperative has to be explained. This is the wider generalization within this case.

Another important distinction that has to be made is between a theory testing or a theory building case study. With a theory testing case study the theory is the basis of which a prediction of a particular outcome will be made on the basis of a particular set of characteristics. With a theory building case study case is selected to develop and refine the propositions that are made and develop a theory that fits the cases that are studied (de Vaus, 2001). The FresQ case is a theory testing case since here some theories that can be used to compare with the FresQ case are expected after the literature study. Theories about a certain organizational structure or a certain marketing innovation path that will increase sustainable competitive advantage are expected after the literature study.

Furthermore single and multiple cases exist. In the case of this research one single case FresQ will be investigated but it is an input for a bigger multiple case research about cooperatives, furthermore a comparison with the competitor cooperatives will be made. Another characteristic that is important according to de Vaus (de Vaus, 2001) is if a case study is executed parallel or sequential (de Vaus, 2001). In this case it is parallel since different investigators investigate different case studies within the same period. The last characteristic that has to be clarified has to do with time dimension. Is the case study retrospective or prospective? Even though it is not the aim of this study to make a reconstruction of the history but to give an explanation about the causes of sustainable competitive

advantage this case study is a retrospective case study because it based on a situation of the past. Future developments and predictions will not be done.

So to conclude the FresQ is an explanatory, theory building, single case, with embedded units of analysis, sequential and prospective case study.

### 1.2.2 Structure of the report

The report is structured as follows. In chapter two a literature study is provided in which the literature necessary to answer the research question on sustainable competitive advantage, organizational structure, innovation, entrepreneurship and social capital is presented. This chapter will end with a theoretical framework which is the guidance for the empirical part of the study. In chapter three the variables of this theoretical framework will be operationalized. In chapter four the methodology used for the empirical study is presented. Followed by chapter five in which the results are presented. In chapter six these results are being interpreted and analyzed. Chapter seven, the conclusion will provide an answer to the central research question and in chapter eight a critical reflection on this research is given in the discussion.

In Table 1.1 below, the table of contents is linked to the research questions.

**Table 1.1:** *Research Questions linked to table of contents*

<b>Table of contents</b>	<b>Research question</b>
Introduction	
Theoretical framework	Answers R.Q. 1 and R.Q. 2, partly R.Q. 3.
Methods	
Case study	Answers Partly R.Q. 3, partly R.Q. 4
Results	Answers R.Q. 4
Conclusion and Discussion	Answers central research question

## 2. Literature study

In this part of the research the literature study necessary to answer the sub questions one till three will be carried out. Furthermore the literature study will be used as a guide for the case study since collecting and analyzing information from case studies must be guided by theory (de Vaus, 2001). The literature study consists of six parts. In the first part the concept sustainable competitive advantage will be explained, to clarify what it means and how it can be measured. In the second part the relationship between organizational structure and sustainable competitive advantage will be investigated in order to clarify how organizational structure can influence the sustainable competitive advantage and to understand the characteristics of a cooperative. In the third fourth and fifth part the concepts innovation, entrepreneurship and social capital are introduced and their relationship towards sustainable competitive advantage is investigated. This to understand how these factors relate to sustainable competitive advantage and how these factors can be measured. In the final part everything will be combined and a theoretical framework will be developed.

### 2.1 Sustainable competitive advantage

In this paragraph of the literature study the concept of Sustainable competitive advantage will be explained. This paragraph has to provide an answer to the sub question: *what is a sustainable competitive advantage, and how can it be measured?* Furthermore it will be made clear which factors can lead to a sustainable competitive advantage according to scientific literature. First the terms non sustainable competitive advantage and sustainable competitive advantage will be explained. Secondly the Resource based view and the relationship to sustainable competitive advantage will be explained. And finally it will be explained how this concept can be measured and an overview of potential factors that can influence sustainable competitive advantage will be provided.

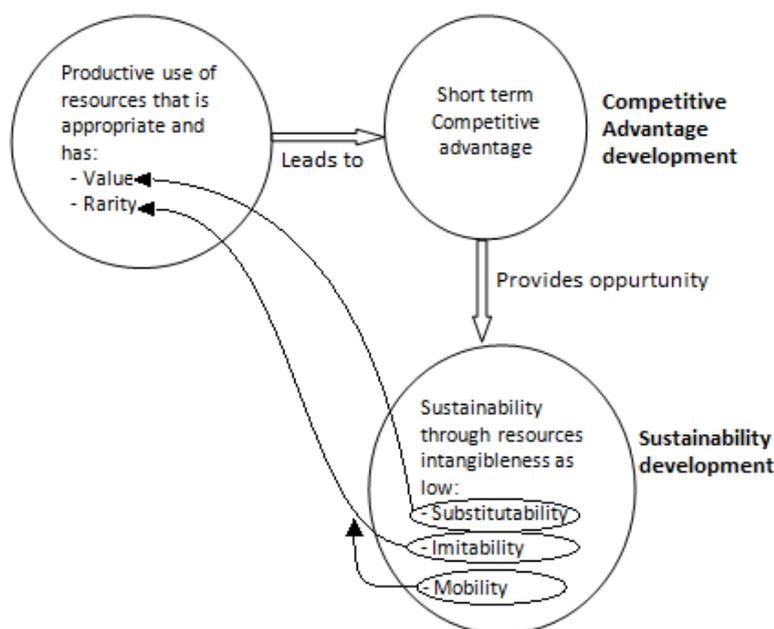
#### 2.1.1 Competitive advantage and sustainable competitive advantage

In this paragraph the terms competitive advantage and sustainable competitive advantage will be introduced and there meaning will be explained. This will be done by explaining the differences between the two concepts. How these concepts can be measured will be explained later.

First of all the term competitive advantage will be explained, because a sustainable competitive advantage can only follow from a competitive advantage. In this research, a firm or organization will have a competitive advantage when a strategy is implemented that delivers value, and when this strategy is implemented on a different moment of time then (potential) competitors (Barney, 1991). Looking at this definition there are to conditions that need to be met when a competitive advantage will be established, resources need to deliver value and they have to be rare, later in this chapter value and rarity will be explained in more detail. These attributes value and rarity are what will be called ex ante limits to competition (Wade and Hulland, 2004). This means that before a firm or cooperative can establish a superior position, as little as possible completion on this position is needed. When competitors have access to the same resources and can reach the same thing with these resources a superior position is not possible. But when a firm is able to avoid the ex-ante limits of competition and competitors cannot do the same thing with their resources a short term competitive advantage can be achieved. According to Furlong (2005), competitive advantage is related to the core competencies of the organization in many situations.

When one knows what a competitive advantage is, one can review the differences with a sustainable competitive advantage. According to Barney (1991) a firm has a sustainable competitive advantage when 'it is implementing a value creating strategy which is not simultaneously being implemented by any current or potential competitors and when these competitors are unable to duplicate the benefits of this strategy'. This definition shows that for a sustainable competitive advantage more is needed, it means that a competitor should not get the opportunity to duplicate the advantage in the

long run. Thus sustainability can be added to a competitive advantage when intangibility is added to a resource, this can be done with the help of what are called ex post limits to competition. These ex post limits to competition are substitutability, limitability and mobility (Wade and Hulland, 2004). When low substitutability low imitability and immobility is created for a resource this a sustainable competitive advantage can be created. Another point of view is provided by Hall (1993) he states that 'companies have sustainable competitive advantage when they consistently produce products and/or deliver systems with attributes which correspond to the key buying criteria for the majority of the customers in their targeted market' (Hall, 1993). This definition shows that sustainable competitive advantage also has to do with adapting to customer wants and needs, and it is not only based on firm resources and the ability of competitors to duplicate them. But in this research project we will not make use of this view since the focus will be on the resources since we are looking at the cooperatives themselves and not to the needs of the customers. The difference between competitive advantage and sustainability competitive advantage is outlined in Figure 2.1 below, adapted from a diagram by Wade and Hulland (2004).



**Figure 2.1: The difference between a non-sustainable and a sustainable competitive advantage (Adapted from Wade and Hulland, 2004)**

### Concluding remarks

After this paragraph we are able to answer the first part of the sub question: What is a sustainable competitive advantage? To explain what a sustainable competitive advantage is it is important to explain what a competitive advantage is. A competitive advantage will be achieved when an organization or firm is implementing a new strategy which creates value and which cannot be seen at competitors or potential competitors (Barney, 1991). A competitive advantage depends on two attributes namely value and rarity which are called ex ante limits to competition. A firm is said to have a sustained competitive advantage when 'it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these competitors are unable to duplicate the benefits of this strategy' (Barney, 1991). This means that a competitive advantage becomes sustainable when a kind of intangibility of the resources is created, this can be done due to low substitutability, limitability and mobility (Wade and Hulland, 2004). These attributes are the so called ex post limits to competition.

### 2.1.2 Resource based view and sustainable competitive advantage

In this article firm resources are conceptualized as: “all assets, capabilities, organizational processes, firm attributes, information, knowledge etc. controlled by a firm that enable the firm to conceive of and implement strategies” (Barney, 1991) that are available and can be used for dealing with market opportunities or threats (Wade and Hulland, 2004). Emphasis in the strategic management literature on competitive advantage has shifted over the years. First the focus was on environmental (industry/market) factors but now the main focus shifted to firm resources, which is called the resource-based view (RBV) (Rouse and Daellenbach, 1999). This shift was a result of the growing awareness that sustainable competitive advantage is the result of specific valuable resources of a firm that are difficult to imitate or substitute (Rouse and Daellenbach, 1999).

Thus what is actually meant with the resource based view? According to Barney (1991) the resource-based view is based on the assumption that firms possess resources, and with correct use of these resources they get the opportunity to come to a (sustainable) competitive advantage (Barney 1991). How these resources precisely can lead to a sustainable competitive advantage is explained in paragraph 2.1.3. As explained the RBV holds that certain assets with certain characteristics will lead to sustainable competitive advantage these assets can be both tangible and intangible (Black and Ball, 2007).

The last part of the definition of the RBV shows that the RBV theory is not only about resources. This because any company or organization that is doing sales must have an advantage in the eyes of their customers. So for the one consumer or company a resource or combination of resources can lead to a positive evaluation while for another this is not the case. This implicates that a competitive advantage can only be achieved when a majority of the potential consumers is in favor of the resources or combination of resources. This shows that (sustainable) competitive advantage also is connected with something that is a bit contrasting with the resource based view namely market orientation. In the case of cooperatives one can probably better speak of customer orientation. Customer orientation can be defined as “a group of actions taken by a business to support its sales and service staff in considering client needs and satisfaction their major priorities” (Business Dictionary, 2012).

In this research we have chosen the perspective of the RBV as the most important one since the main research question (*what are critical success factors will lead to a sustainable competitive advantage of fresh produces cooperatives?*) steers us towards the RBV. Furthermore are the resources also steering towards the resources based view because the here there is special attention for the factors organizational structure, innovation, entrepreneurship and social capital.

These questions show that we are looking at resources of the firm and therefore the RBV is most suitable. Furthermore a lot of the literature on sustainable competitive advantage is based on the resource based view (Barney, 1991; Wade and Hulland, 2004). So making use of the resource based view makes it easier to compare this research with other literature. So by using the same set of resource attributes based on the ex-ante and ex post limitations of competition mentioned earlier, resources can be compared with one another. Finally, the resource based view provides a good background for the relationship between resources and sustainable competitive advantage because of a clear dependent variable (Wade and Hulland, 2004).

Of course customer orientation is important as well, but it is already indirectly represented in this research. First of all because of the second part of the resource based view definition which states that resources need to recognize opportunities and adapt to these market opportunities or threats (Wade and Hulland, 2004). Furthermore there is another way in which customer orientation is included in this research. The following quote of Yolles (2009) shows that customer orientation can be seen as a prelude for a resource to become valuable or in some cases rare and therefore customer orientation is indirectly taken into account as well. “Since competitive advantage can be made

sustainable by making the organization responsive to rapidly changing market conditions by both maintaining the development of existing resources and capabilities, and creating new ones". So customer orientation is included in this research indirectly, but the resource based view is the starting point.

### **Concluding remarks**

In strategic management the focus in research when looking at competitive advantage has shifted towards a resource based view. With a resource based view it is meant that firms have resources, that when used in an effective way help to achieve competitive advantage. This can also be in the long run when this is done correctly over time. Even though it has some limitations in this research there is chosen to make use of the research based view perspective. This because it suits the research questions best since in these question a lot of emphasis is on resources as possible sources of (sustainable) competitive advantage. The customer orientation is taken into account as well but in this research we assume that it can be seen as a prelude for value of a resource and therefore there is not specifically looked at the customer orientation.

### **2.1.3 Measuring Competitive Advantage and Sustainable Competitive Advantage**

In the previous paragraph the concepts of competitive advantage and sustainable competitive advantage were introduced by explaining their differences. In this paragraph it will be explained how competitive advantage and sustainable competitive advantage can be measured. This will be done by explaining how the ex-ante and ex-post limits to competition can be measured, the presence of these limits decided whether or not one and to what extent one can speak of a (sustainable) competitive advantage.

#### **2.1.3.1 Competitive advantage**

As stated in the previous paragraph competitive advantage can be achieved by having value<sup>1</sup> and by being rare<sup>2</sup>, but based on what can the presence of these ex-ante limits of completion be measured? This will be explained in the following sections.

##### **1) Value**

Before firm resources can lead to a competitive advantage and overtime a sustainable competitive advantage they need to be valuable. This has to be at least the case for the firm that possesses the resource (Wade and Hulland, 2004). A resource can be called valuable when it enables a firm to implement strategies that lead to more efficiency and effectiveness of the strategy (Barney 1991). Resources with little or no value have a limited possibility of conferring an SCA on the possessing firm. Attributes of a firm can only be considered as valuable when they help to exploit opportunities or neutralize threats in a firm environment because in this situation a firm is able to improve their performance based on its strategy (Barney, 1991).

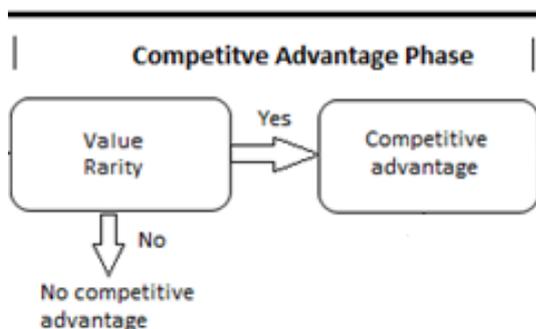
##### **2) Rarity**

It takes more for resources than only being valuable to become a source of competitive advantage. Besides being valuable the resources also should not be available in abundant supply (Wade and Hulland, 2004). So valuable firm resources that are possessed by a large number of competitors or potentially competitive firms cannot be a source of competitive advantage. This has to do with what will be called rarity in this research, which is defined as the condition where the resource is not simultaneously available to a plurality of other firms (Amit and Schoemaker 1993, as cited in Wade and Hulland 2004, p. 116). So this means that a firm can only receive a competitive advantage when it is the only firm that can exploit a valuable resource. When other firms can exploit the resource in a comparable way no competitive advantage can be achieved on this resource.

A combination of resources can be analyzed in the same way, which means that a particular mix of resources can be rare as well.

How rare a valuable firm resource must be to have the potential for generating a competitive advantage is a difficult question (Barney, 1991). But when a resource is unique it is obvious that it can lead to a competitive advantage.

*Concluding remark;* Now the second part of the sub question: How can sustainable competitive advantage be measured? can be answered partly. As said before a competitive advantage is a pre-condition for a sustainable competitive advantage. And a resource can result into a competitive advantage when it has value and it is rare the so called ex ante limitations. Resources become valuable for a firm when resources make it possible that new strategies can be implemented which lead to an improved efficiency and effectiveness. Rarity of a resource can be seen it is not available at the same moment of time for a large number of firms. This can be seen as the first step in the evaluation of a resource towards sustainable competitive advantage. The first part of this flowchart is presented graphically in Figure 2.2. So when a resource has value and rarity a short term competitive advantage is achieved. In this research the evaluation of a resources on the competitive advantage characteristics will be called the competitive advantage phase.



**Figure 2.2: Part 1 flowchart for accessing resources on sustainable competitive advantage**

### 2.1.3.2 Sustainable competitive advantage

As explained in the previous paragraph the difference between a competitive advantage and a sustainable competitive advantage depended the ex post limits of competition imitability<sup>1</sup>, substitutionability<sup>2</sup> and mobility<sup>3</sup>. What do these terms exactly mean and how can they be measured? This will be described in the following sections.

#### 1) Imitability

The first requirement for a resource to become a sustainable competitive advantage is that imitability of the resource is not possible for the competitors. According to Barney (1991), three factors can cause low imitability these are unique firm history, causal ambiguity, and social complexity.

The first factor *unique firm history* takes into account the firm's unique past, in this unique past things happen that cannot not be duplicated by competitors. For example, a firm decides to settle in a place at one point in time that subsequently becomes very valuable.

The second factor is *causal ambiguity*. With causal ambiguity is meant that for competitors no clarity exists about the connection between the resource and the competitive advantage (Wade and Hulland, 2004). This ambiguity can be a result of two types of indistinctness. First there can be uncertainty about the way that a certain resource provides a sustainable competitive advantage to a firm. The second indistinctness is a result of uncertainty about which resource (combination) leads to a sustainable competitive advantage (Wade and Hulland, 2004). Because of causal ambiguity competitors will experience problems when trying to duplicate a resource and use it in the same way as the firm with the sustainable competitive advantage (Barney 1991). On the other hand when a competing firm does understand how resources can lead to SCA, they can try to get access to this knowledge, for example by hiring away key personnel.

The final factor that can contribute to imitability is *social complexity*. With social complexity it is meant that there within a firm there are all kind of complex social relationships. These complex relationships can also occur between the firm and important stakeholders such as suppliers or customers (Wade and Hulland, 2004). When a certain complexity in the relationships exists it is extremely difficult to imitate these relationships. These relationships have grown over time and it is hard to understand how these relationships precisely look like.

## 2) Substitutability

The second requirement that a resource needs to have to be able to lead to a sustainable competitive advantage is that there must be no other resource that can be called a strategically equivalent. It can be called a strategic equivalent when the other resource is itself is either rare or imitable (Barney, 1991). This means that if for resource there is no other resource that is rare and imitable and leads to the same kind of sustainable competitive advantage there is low substitutability (Wade and Hulland, 2004). But when on the other hand there are two resources that are valuable and can be apart from each other used to implement the same strategies, there is substitutability possible. According to Barney (1991) substitutability can be seen in at least two forms. In the first form a competitor is not imitating the resource precisely but. But he uses similar resources that can be used to implement a strategy that is the same or comparable (Barney, 1991). For example a firm cannot copy a unique board of directors precisely, but it may be possible to come up with an own unique board of directors which can have the same impact on strategy an results.

In the second form resources that are completely different can be used as strategic substitutes (Barney, 1991). For example a good vision for the future can be a result of a good strategic leader, but it can also be a result of unique formal planning system in a firm.

Whether a resource can be evaluated as a strategic substitutability is difficult to say, it always depends on how it is interpreted. However, the implications for an organization that are the result of the substitute firm resources do not have to be exactly the same to be viewed as equivalents (Barney, 1991).

## 3) Mobility

The last requirement for a resource to become a sustainable competitive advantage is imperfect mobility. It is not always named like this in some researches it is named transferability (Grant, 1991) or low tradability (Amit and Shoemaker 1993). In this research we prefer to make use of the term resource mobility over resource tradability because tradability only covers the meaning partly. Resource mobility only takes place after the competitive advantage has occurred, and it has to do with the ability of competitors to acquire the resources with the goal to imitate an existing competitive advantage. This means that for a sustaining a competitive advantage a firm has to make sure that its resources are perfectly mobile and cannot be traded (Barney 1991). This implicates that it is not possible for another firm to make use of a firms resource at a different (physical) place. Barriers to mobility can arise as a result of several reasons namely switching costs, resource co-specialization or high transactions costs (Wade and Hulland, 2004). Some resources are more easily to buy or sell than others. Less easy to obtain resources are for example technical knowledge, managerial experience, and a lot of skills. While some resources will even only be available when a firm is sold, these are things like company culture, or brand assets (Grant 1991).

## **Relationships between ex ante and ex post attributes**

In the previous sections the ex-ante and ex post attributes are described separately. But there are some relationships between the two. The first relation that can be seen is between imitability and rareness. Resources that are imitated will exist in higher amounts than in the initial situation, and as a result become less rare (Wade and Hulland, 2004). Furthermore rarity can be affected by mobility. This because resources that have high mobility can probably be acquired by competing firms; this will affect the rarity of the resource for that specific firm as well. Substitutability will not affect rarity but

value. Rarity will not be affected by having multiple substitutes because it is not the same product that is going to be available in higher amounts. But substitutability can affect value, when more substitutes become available this may lead to a lower value of a resource (Wade and Hulland, 2004). These relationships are shown in Figure 2.3.



Figure 2.3: Relationship between ex ante and ex post limitations of competition (Wade and Hulland, 2004)

**Performance indicators**

As explained in the previous sections looking at competitive and sustainable competitive advantage is possible by looking at the requirements that decide whether a resource has competitive advantage or not. But there are also some general indicators that can be used to see whether a firm has (sustainable) competitive advantage or not. Return on investment (ROI) and assets (ROA), sales, and market share are methods that are often used in the strategic management literature (Wade and Hulland, 2004).

**Limitations of looking at sustainable competitive advantage**

Looking at sustainable competitive advantage has a part of the advantages also some limitations and complications. The first limitation is the indistinctness about how to evaluate the time that is needed to evaluate whether something is a competitive or a sustainable competitive advantage. Wade and Hulland (2004) state that a firm is sustaining its advantage as long as it has valuable resources which competitors cannot acquire, imitate, or find substitutes for. A second limitation of looking at sustainable competitive advantage is the fact that SCA has proved to be very difficult to operationalized (Wade and Hulland, 2004) especially in this research because most literature is not based on sectors comparable to the sector of fresh produce fruits and vegetables.

**Concluding remarks**

Now the second part of the research question: How can sustainable competitive advantage be measured? can be answered completely. As explained before a sustainable competitive advantage is built on top of a competitive advantage. Sustainability of a competitive advantage can be achieved by low substitutability, low imitability and low mobility, the so called ex post limitations. Low imitability can be caused by three factors: unique firm history, causal ambiguity, and social complexity. Low substitutability occurs if there are few, if any, strategically equivalent resources that are, themselves, rare and inimitable. Mobility has to do with the ability of competitors to acquire the resources that are needed to imitate the competitive advantage. Assessing on these attributes is the second part of the flowchart towards sustainable competitive advantage. In figure 2.4 this is presented graphically.

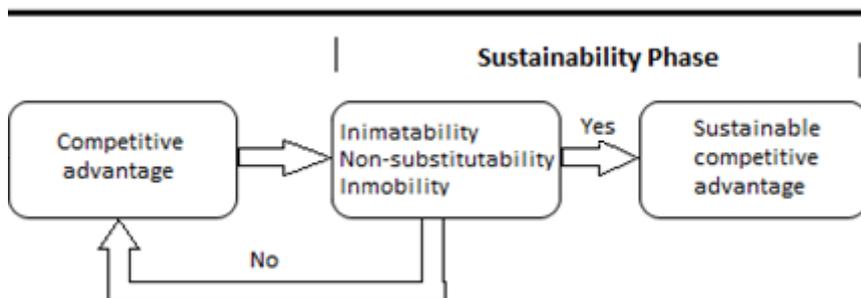


Figure 2.4: Part 2 flowchart for accessing resources on sustainable competitive advantage

Sustainable competitive advantage can also be measured based on some performance indicators. These performance indicators are return on investment, return on assets, sales and market share. Furthermore sometimes long time above average performance can be used to measure SCA. Looking at sustainable competitive advantage also has some limitations. First of all it is difficult to decide how to evaluate the time that is needed to evaluate whether a competitive advantage has become long term or sustained and secondly, sustainable competitive advantage is a difficult to operationalize concept.

#### 2.1.4 Factors influencing Sustainable competitive advantage

In this paragraph an overview of factors that can lead to sustainable competitive advantage will be presented. This will be done with the help of models in which several attributes are defined that determine sustainable competitive advantage. These factors are presented to get an overview of the possible factors that can lead to a sustainable competitive advantage other than the four factors that are pre assumed in this research, namely organizational structure, innovation, social capital and entrepreneurship. In this way it is prevented that some important factors are missed. A list of factors that can be found in literature will arise and this list will be crystallized in such a way that only the factors that are applicable for the specific situation of the horticulture sector with its cooperatives.

Johannessen et al. (2001) provided a list of potential factors that can influence sustainable competitive advantage. These factors are:

- *Tacit knowledge*. When the intrinsic tacit knowledge is lowered within an organization this can possible of influence of a firms ability to create sustainable competitive advantage or retain an existing one.
- *Total corporate knowledge*. Total knowledge available in a firm is influencing sustainable competitive advantage, both tacit and explicit knowledge. Tacit and explicit knowledge needs to be in balance no over emphasis should be seen.
- Innovation. This will be explained in more detail in section 2.3.
- Continuous improvement. To remain competitive firms need to improve continuously. Stability in the firm and awareness for new opportunities is needed.
- Core competences. When a firm is having core competences and they focus on these competences these can lead to a sustainable competitive advantage, since for competitors it is often hard to imitate these competences.

These factors can be seen as possible causes for sustainable competitive advantage and therefore they will be added to the list of potential factors.

Besides the already mentioned factors organizational culture is another factor that can lead to sustainable competitive advantage (Yolles, 2009). Schein (1992) defined culture as follows: 'A pattern of shared basic assumptions that the group learned as it solved its problems that has worked well enough to be considered valid and is passed on to new members as the correct way to perceive, think, and feel in relation to those problems'. This means that within a group or firm people should share some beliefs that are the result of things that happened in history. In the case of cooperatives this will result in a situation in which beliefs can then be taken over by new members.

Another author which came up with multiple factors that can lead to a sustainable competitive advantage is Hall (Hall, 1993). Here the culture of the organization is mentioned as well. The model takes intangible resources as a starting point. Within his study Hall comes up with the following intangible resources that are possible causes of sustainable competitive advantage:

- Intellectual property rights of patents, trademarks, copyrights and registered designs
- Trade secrets

- Contracts and licenses
- Data bases
- Information in the public domain
- Personal and organizational networks
- The know-how of employees, professional advisers, suppliers and distributors
- The reputation of products and company;
- The culture of the organization; Ability of the organization to react to challenge or to cope with change

So from literature many factors that can influence sustainable competitive advantage can be found. But in this research we are looking at Fresh produce glasshouse horticulture cooperatives. Some of the factors found in literature are not suitable for this specific situation, therefore some factors will be excluded. The first factor that is only partly suitable for this research about fresh produce cooperatives are the intellectual rights of patterns, trademarks, copyrights and registered designs. This because in the sector of Fresh produce fruit and vegetables patterns, trademarks etc. do not exist. The only kind of intellectual property rights that do exist are grower rights of particular crops, but this can better be seen as a license. The second factor that is not suitable are trade secrets, since trade secrets do not exist within this sector. The third factor that does not suit the situation of the fresh produce cooperatives are the databases, since no databases exist that can lead to sustainable competitive advantage. Data bases are of higher importance for ICT companies for example. The last factor that does not suit is the information in the public domain, since the sector is extremely transparent because most players are cooperatives. Therefore no information in the public domain can be expected that leads to sustainable competitive advantage for players within this sector. In Table 2.1 an overview of the attributes that may lead to a sustainable competitive advantage is provided.

**Table 2.1:** *Proposed attributes for sustainable competitive advantage (Based on Hall, 1993; Johannessen et al. 2001 and Yolles 2009)*

1. Tacit knowledge
2. Total corporate knowledge
3. Continuous improvement
4. Core competences
5. contracts and licenses
6. personal and organizational networks
7. the know-how of employees, professional advisers, suppliers and distributors
8. the reputation of products and company
9. the culture of the organization; e.g. ability of the organization to react to challenge, to cope with change, etc.

### 2.1.5 Concluding remarks chapter

After this chapter we are able to answer the sub question What is a sustainable competitive advantage, and how can it be measured? To explain a sustainable competitive advantage it is necessary to explain what a competitive advantage is first. A competitive is the result of a firm that is implementing a strategy that delivers value to the firm on a moment of time that competitors or potential competitors are not implanting the same strategy (Barney, 1991). Competitive advantage depends on the attributes value and rarity which are called ex ante limits to competition. After a competitive advantage is achieved it can be maintained for a longer period of time, when a firm manages to realize this a sustainable competitive advantage is achieved. A sustainable competitive advantage is achieved when a firm is implementing a value creating strategy on a different moment of time than its (potential) competitors furthermore it needs to hold that these competitors are not able to duplicate the benefits of this strategy (Barney, 1991). Sustainable competitive advantage depends on the ex post limitations of competition low substitutability, limitability and mobility.

Within this research the perspective of the resource-based view argues that firms possess resources, which they can use to come to a competitive advantage, and if used correctly leads to outperforming in the long run (Barney 1991). The RBV is chosen because it suits the research questions best because in these questions a lot of emphasis is on resources as possible source of (sustainable) competitive advantage. The customer orientation is taken into account as well but in this research we assume that it can be seen as a prelude for value of a resource.

A resource can become a competitive advantage when it has value and it is rare the so called ex ante limitations. Resources are valuable when it enables a firm to implement strategies that improve efficiency and effectiveness. Rarity occurs when the resource is not simultaneously available to a large number of firms (Barney, 1991). This can be seen as the first step in the evaluation of measuring the extent to which a resource leads towards a sustainable competitive advantage, this is called the competitive advantage phase. After this phase the sustainability phase is started, in this phase it is evaluation whether a resource leads to sustainable competitive advantage. Sustainability of a competitive advantage can be achieved by low substitutability, low imitability and low mobility, the so called ex post limitations. Low imitability can be caused by three factors: unique firm history, causal ambiguity, and social complexity (Wade and Hulland, 2004). Low substitutability can be seen when there are hardly any or no resources that have the same implications for strategy, which are furthermore rare and inimitable. Mobility has to do with the ability of competitors to secure the resources that are needed to imitate competitive advantage of a competitor. This can be seen as the second part of the flowchart, presented in Figure 2.4, in this part it is measured to what extend resources lead to a sustainable competitive advantage.

Sustainable competitive advantage can also be measured based on some performance indicators. These performance indicators are return on investment, return on assets, sales and market share. Furthermore sometimes long time above average performance can be used to measure SCA. The limitations of SCA are how to evaluate the time that is needed to evaluate whether a competitive advantage has become long term or sustained and the fact that SCA is difficult to operationalize.

From literature a list with potential resources that can lead to sustainable competitive advantage, of a fresh produce fruit and vegetable cooperative, other than the four we pre-assumed during this research is derived in this paragraph. In this way this list is a guide with factors that are important to keep in mind during the research. This has led to the following list: contracts and licenses, personal and organizational networks, the know-how of employees, professional advisers, suppliers and distributors, the reputation of products and company, the culture of the organization, tacit knowledge, total corporate knowledge, continuous improvement, and core competences.

Combining all this knowledge leads to a flowchart in which resources can be assessed. First to decide whether they lead to a competitive advantage and secondly a sustainable competitive advantage. In Figure 2.5 the complete assessing of a resource on sustainable competitive advantage is presented. Later in this research it will be explained how this flowchart will be used as a tool of analyses.

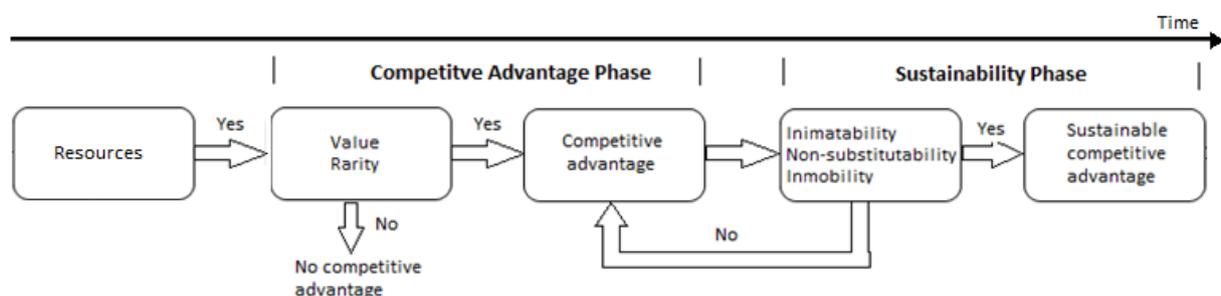


Figure 2.5: Flowchart for accessing resources on (sustainable) competitive advantage

## 2.2 Organizational structure

Within this section the literature on organizational structure will be presented. This paragraph will consist of two major parts. First organizational structure will be introduced with its implications and characteristics. The second part will be on a specific type of organizational structure namely the cooperative.

### 2.2.1 Organizational structure

This part of the section is about the organizational structure and its striking characteristics that were presented in the introduction. Here it will be clarified how the strength of organizational structure within a cooperative can be assessed. This is a first step of answering the sub question *What factors affect sustainable competitive advantage of a cooperative? With special attention to the factor a) organizational structure*. In this section it will first be explained what organizational structure is, followed by introducing some organizational structure dilemmas and it will end with literature on network organizations.

#### 2.2.1.1 What is organizational structure?

According to Schermerhorn, (2002) organizational structure can be defined as: 'The framework within which an organization arranges its lines of authority and communications, and allocates rights and duties' (Schermerhorn, 2002). A lot of things are determined by organizational structure in a firm, first of all the way in which roles, power and responsibilities are divided in a firm. Furthermore the structure decides how these things are controlled. And finally the communication lines between the levels of management are determined by organizational structure (Schermerhorn, 2002). The organizational structure is the result of objectives and the related strategy of the organization.

There are two ways of looking at organizational structure, one can look at the formal structure and but also at the informal structure.

1. *Formal structure*: The formal structure is the structure of an organization in its official state. Mostly the formal structure is presented in the form of an organization chart. In an organizational chart the arrangements of work positions can be seen. Also authority lines and job titles can be seen in most charts (Schermerhorn, 2002).
2. *Informal structures*: These are the lines and relationships that cannot be seen in an organization chart. It can be seen as a shadow organization in which unofficial working relationships within an organization between various persons are described (Schermerhorn, 2002). Relationships within the informal structure are not related to level of hierarchy.

Both the formal and informal structures within an organization are important to understand the total organization and its lines of authority.

Since the organizational structure can influence the sustainable competitive position of the organization it is important to determine the strength of the organizational structure. Furthermore it influences the strength of other resources as well. For example innovation is stimulated by the way an organization is structured.

#### 2.2.1.2 Organizational structure dilemma's

Related to organizational structure there are some dilemmas. These dilemmas have to do with the configuration of the organization. Which means fitting the structure to the relationships and processes of the organization. Within this trade of some dilemmas can occur. Johnson et al., (2008) mentioned three types of organizational structure dilemmas.

*Hierarchical vs. networks*

Hierarchies can be often needed to ensure control and action but they can conflict with networks that try to increase the exchange of knowledge and innovation. So this can be seen as one of the dilemmas on organizational structure. It depends on the situation which choice fits the best, the size of the organization also matters (Johnson et al., 2008).

#### *Vertical accountability vs. empowerment of employees*

Another dilemma can be seen between vertical accountability and empowerment of employees. Vertical accountability requires sub-ordinates to perform the best they can in the eyes of their superiors. But this has negative impacts when managers do only focus on their own objectives with as a result that horizontal relationships are harmed. Empowerment of employees can lead to initiatives but in the long term it can lead to incoherence (Johnson et al., 2008). In the case of a cooperative with empowerment of employees empowerment of the members of the cooperative is meant.

#### *Centrality vs. decentralized*

And finally centralization can be used when standardization is aimed at, but when there is too much centralization this can lower new initiatives of employees cost and also flexibility is lowered. By devolution is the other way around. Bureaucratic organizations are centralized structures while flat organizations are decentralized structures (Johnson et al. 2008). Centralized structures imply that authority and decision-making is only done by a few individual. All others take orders directly from the top and have limited influence on the decision-making process. When a decentralized structure can be seen, individuals at lower organizational levels get more freedom to make decisions by their management (Johnson et al. 2008).

#### 2.2.1.3 Strategic Network Theory

Looking at cooperatives from the perspective of a strategic network instead of making use of a usual business models has not been used in the past shows a review of the literature, but it can be a nice referencing point for looking at cooperatives (Mazzarol, 2009)

A cooperative should not be viewed as a firm in the conventional sense but as a coalition of members with different interests. Therefore it can be wise to look at a cooperative through the lens of strategic network theory in relation to corporate governance (Mazzarol et al., 2011).

Three forms of strategic networks can be distinguished according to Miles and Snow (1992):

**Stable network:** In this situation there is a firm that keeps the network together for a long period of time. A stable market is needed for this form of strategic networks.

**Internal network:** there can be independent parts of a bigger organization that cooperate within an overarching collaboration of companies.

**Dynamic network:** This networks focus on the short term. Independent firms work together on a particular product or service.

A cooperative can be placed between the stable and internal network (Mazzarol et al., 2011).

#### 2.2.1.4 Structural characteristics of a network organization

Before looking at the structural characteristics that determine the strength of a network it is important to realize on which level to analyze a network. According to Borgatti and Foster (2003) there are three levels of analysis. The dyadic level, which focuses on one social relation between two members within a network. The actor level is one step up from the dyadic level. Here the focus will be on a single actor within a network with its different relationships. One step up to the actor level is the network level. Here there will be looked to the network as a whole with all its relationships (Borgatti and Foster, 2003). In this research we will look to the network as a whole, since we are interested in the performance and relationships of the complete cooperative and not in the

performance of the different actors. We see the cooperative as a network which has internal and external relationships.

Looking at a network organization it is important to have a look at the typical characteristics of the network itself. These characteristics determine how to evaluate a network. The following structural characteristics of the network will be assessed:

- **Size**  
Networks can range from a small number of participants to a substantial number. More activities and relationships can be seen when the number of participants in a network is increasing. As a result control and organization is needed.
- **Complexity**  
Network complexity grows when the amount of members is growing. More relations are established and need to be maintained. But also networks with a low number of participants can be complex. This is the case when a lot of things are happening and shared with each other. This is normally the case at a cooperative. A more complex network requires a governance body that has extensive coordination skills (Provan and Kenis, 2007).
- **Density**  
With Density of the network the ratio of the number of existing direct relationships to all possible relationships in a network is meant (Nooteboom and Gilsing, 2004). When a network is dense, strong relations between all the members can be seen, in a sparse network on the other hand, the number of actual relationships is relatively low when comparing it to all possible relationships (Burt, 1992).
- **Centrality**  
Centrality is the measurement of the degree to which relationships are concentrated around a few organizations or spread out among many. When centrality is high and activities are concentrated around one or a small amount of organizations, this increases power (Burt, 2000).

### 2.2.2 The cooperative

After the organizational structure is described in general now a specific type of organizational structure will be highlighted: the cooperative. The goal of this part is to answer the second sub question of this research: What is a cooperative and what are its characteristics according to literature? In this part it will first be explained what is a cooperative and finally the characteristics of a cooperative that are suitable for this research will be mentioned.

#### 2.2.2.1 What is a cooperative?

A cooperative is a special type of organization which is non-governmental and aiming for profit and it exists of individuals. Furthermore it is has by voluntary membership, democratic governance principles (one-member one-vote), and set-up for the benefit of its members (Birchall, 2004). In this definition already three characteristics of the cooperative can be seen. First of all the fact that members freely enter a cooperative, secondly that there are democratic governance principles and thirdly that the cooperative always has the goal to help the benefits of the members. Another way of explaining the meaning of a cooperative is that a cooperative drives on properly understood self-interest (in Dutch: *welbegrepen eigenbelang*) (Van Dijk and Klep, 2005). Which shows that in a cooperative it is about doing things together but only when it leads to an advantage for the individual member.

Cooperation takes place for several reasons. Van Dijk and Klep (Van Dijk and Klep, 2005) distinguish eight reasons that can explain the formation of cooperatives, these are: countervailing power, market access, market transparency, risk management, economies of scale, becoming a more professional organization, chain development and community interest.

When looking at a cooperative one can say that a cooperative is a double layered enterprise, the first layer is the layer of the cooperative as a whole and the second layer is the layer of the members which own individual enterprises (Van Dijk and Klep, 2005).

This indicates the double-sensitivity of a cooperative, since both layers can have different interests, the interests of the individual members and the interest of the cooperative itself.

Furthermore one speaks about the primary and the secondary company.

Primary company: This are the members that do business with the first layer (the cooperative), this is mostly a closed market.

Secondary company: The First layer (the cooperative) does business with the external market (Van Dijk and Klep, 2005).

#### 2.2.2.2 Roles of the members

One of the characteristics of a cooperative are the different roles that members play, members can have multiple roles within a cooperation (Mazzarol et al., 2011). Here three roles of a member are discussed to get a good idea about the motives of members and the dilemmas they may face. The role of an investor which is also distinguished in some literature is not discussed since members of a cooperative are not really investing in a cooperative, at least they do not feel like doing so. In paragraph 2.2.2.3 about the financial relationship this investment relationship is further explained, here it is made clear that it is not really investing what members do.

#### Member as patron

A member of a cooperative has a customer or a supplier relationship with the cooperative. This relationship is called members patronage. It is focusing three factors (Mazzarol et al., 2011):

- **The price paid or received.** When the cooperative delivers services or products to the member price have to be set. The same holds the other way around when the member delivers products or services to the cooperation.
- **Transaction cost.** When doing business with each-other transaction costs arise. The way these transaction costs are handled and how efficient this is done is of high importance. A patronage refund, which is paid as a dividend that is proportionally connected to the extent that a member trade with the cooperative, tries to make sure that members only pay what goods and services actually cost plus the operating expenses and the allocation to reserves (Mazzarol et al., 2011)
- **Service quality.** The level of the services the cooperative provides to the members is also important in the patron relation. It is an important aspect which is connected to the commitment of members and plays a role in the identity building of the cooperation.

#### Member as owner

Being a member within a cooperative also means being an owner of a cooperative. When looking at a member of a cooperation as an owner the focus is on member control. The status of ownership provides right for members to be part of the decision making process. It also means that members have to respect the democratic rules that a cooperative has. In general many members don't see themselves as owners and they do not have a lot of influence on the strategic path of the cooperative (Mazzarol et al., 2011).

Furthermore there is a psychological sense of ownership. This will be explained in the part about member commitment.

#### Member as community member

One of the characteristics of a cooperative is their ability to be embedded in their local community (Sevarlic et al. 2010 as cited in, Mazzarol et al. 2011, p. 7). The members have a social role as they are

part of the community they are operating in, a role that is important not to forget when there is congruence between the goals of the community and the cooperative this can lead to long term cooperation which is called reciprocal loyalty (Mazzarol et al., 2011).

### 2.2.2.3 Relationships between the cooperative and its members

There is a threefold relationship between the cooperation and its members. These relationships lead to some typical characteristics of cooperatives. Based on these three relationships these characteristics will be explained. The threefold relationship is as follows (Van Dijk and Klep, 2005):

- Transaction relationship: The cooperative performs an activity which is of importance for the own business of the members.
- Financial relationship: A cooperation needs capital so initial investments are needed by the members which have to pay for ownership.
- Controlling relationship: The cooperative needs to choose a strategy. The cooperative as a whole decides but the members have their own vote.

The essence of a cooperation is often summarized as user controlled and user benefit (Barton, 1989). This can be combined with the threefold relationship. From the transaction relationship the user benefit is derived. The financial relationship provides the capital, user owned. From the controlling relationship it can be said that members have control so a cooperation is user controlled.

#### The transaction relationship

The collective interest can express itself in the following four aspects of the transaction relationship which are mentioned by van Dijk and Klep (2005):

- *The possibility of delivery*. This means that the cooperative makes transactions that normally were not possible because individual members cannot make this transactions. For an example one can think about long term contracts with retail by vegetable cooperatives.
- *Price*: The advantage of being part of the cooperative is often related to the price members receive for their products. But several factors play a role in the transaction relationship when looking at the price. First price leadership is strived aimed for, cooperatives try to realize a price advantage. Furthermore no redistribution takes place, member customers have to pay the market price as well to the cooperative since for every member the same rules have to hold. The last factor of price is the allocation of costs and benefits, which is something that can be done proportionally, were the cooperative pays in proportion of the transaction volume. Or with a correction for the value that products have.
- *Quality*: Several factors play a role for the quality of the products. First of all because of the cooperation there comes access to better production factors for example to experts on food safety. Furthermore cooperatives made sure that a better quality could be delivered to the market. When quality has to be the same within a cooperative the mutual discipline to achieve this is important furthermore uniformity of the product is necessary to avoid solidarity problems between members mutually. Members with better products do not want to receive a lower price because of members who deliver a lower quality. Furthermore the chain quality can be influenced by cooperatives since they can put more pressure on chain actors together than alone.
- *Quantity*: The bigger the amount of transactions the stronger the position of the cooperative. When looking at quantity it is important to realize that at cooperatives there is free entry but when one enters there is a transaction duty. For members this means right on transaction

#### Financial relationship:

The second relationship between a cooperative and its members is the financial relationship. Not all aspects of the financial relationship will be named here since it is not the goal of this study to explain the financial structure of the cooperatives.

When looking at the finances it is important to realize that return on investment differs for cooperatives with respect to other firms and organizations. This can be explained by the dual sensitivity of a cooperative because of the two layers of the cooperative. The members of the cooperative do not directly invest in their own enterprise but in the cooperative, this leads to different return on investment calculation.

### **Profit/surplus**

Looking at profit is also different for a cooperative. One can say that only a transaction price increase takes place. Still there can be a cooperative surplus this exists of two parts. First there is the profit on the product of the members and secondly the added value of the cooperative (Van Dijk and Klep, 2005). The members have a right to both profits, on the first part as a producer on the second part as an investor. In practice the allocation of this surplus is difficult (Mazzarol et al., 2011). This because members did invest different amounts, furthermore the role of external investors is difficult. A third profit effect can be that new markets are unlocked by organizing export, this is a volume effect.

### **Capital**

When looking at capital within cooperatives self-financing almost always is preferred. It is important to make sure that the transaction principle is not harmed. To realize this often the proportionality principle is chosen. This means that a member has influence in proportion to the amount of what he invests in the cooperative (Van Dijk and Klep, 2005).. In this way no conflict of interest will take place between members for which the transaction relationship is central and between members for which the return of investment is most important. Sometimes external capital is needed. This can be attracted in three ways (Van Dijk and Klep, 2005).

- Pre-financing by members: Proportional amount by members
- Credit proportional given by members.
- Capital market

### **Controlling relationship**

Because more and more cooperatives became second generation cooperatives the controlling relationship became more complicated. Second generation cooperatives are cooperatives that undertake activities that are outside the scope of the original member activities (Van Dijk and Klep, 2005). Faster anticipation to changing market conditions are needed so faster decisions need to be taken and this needs to be done more secretly. This conflicts with the open character of the cooperative and as a result more control is needed. Therefore the governance structure of cooperatives more and more makes us of several bodies . We will discuss the role of these bodies now. In this way the responsibilities of the different bodies become clear as well (Van Dijk and Klep, 2005).

### **Responsibilities of the bodies**

#### **Members**

The cooperation is from and for members. Therefore the general members meeting is the most important body of the cooperative (Mazzarol et al., 2011). Legally the one man one vote principle counts, in practice other ways of distributing the rights can be chosen. Mostly this is connected to the amount of transaction a member makes, with the rule that every member has at least one vote (Van Dijk and Klep, 2005). Furthermore a lot of cooperatives make use of a members council. Different districts or parts of the cooperative send their delegate to this council. This members council then replaces the general members meeting.

The duties of the general members meeting or the members council are (Van Dijk and Klep, 2005):

- Appoint and dismiss the board and the supervisory board
- The right to dissolve the cooperation, to split the cooperation or to merger

- To approve or dismiss members
- Make the statutes, and control of the balance sheet etc.

This is done afterwards so trust in the board and supervisory board is needed.

The typical administrative management structure consists of three parts, the board, the management and the supervisory board. The supervisory board is for the control. Sometimes the board really has the lead in the cooperation. But in most cases the board delegates the duties to the management of the cooperative. Then one speaks about a three layer model (Van Dijk and Klep, 2005). This model sometimes leads to problems because for example the management has to justify itself twice against the members and against the board. Therefore sometimes there is chosen for a legal breakdown. The entrepreneurial activities are hosted in a BV or NV then. The board represents the interests of the members and on the same hand forms the supervisory board. Mostly some external people are included here. This is more or less a two layered model (Van Dijk and Klep, 2005). The characteristics of supervisory board, the board and the management will be presented below.

#### Supervisory board

As said before the supervisory board is for the control of the cooperative in the interests of the members. How the supervisory board is composed differs per cooperative, they can choose for elderly experienced member, or they can see it as a pool for young members. When a cooperative has a certain amount of members they are obliged to have private equity and a works council, since 1989 these cooperatives are under a so-called structure regime (Van Dijk and Klep, 2005). For a cooperative within this structure regime a supervisory board is obliged.

#### The board

The board is the central organ of the cooperative, and it is mandatory for every cooperative to have a board. Besides representing the cooperative as a legal entity, it is their duty to initiate and execute the strategy and the policy of the cooperative (Mazzarol et al., 2011). And all the decisions connected to that. This consists of more than just the daily execution and management. Mostly the board consists of members of the cooperative, according to the statutory main rule. But they can differ in the statutes. The board is chosen by the general members meeting and the members council (Van Dijk and Klep, 2005).

#### Management

Just as in another type of company the board appoints managers that have to take care of the daily management of the cooperative. They have to do this within the strategy that the cooperative has formulated (Van Dijk and Klep, 2005).

#### 2.2.2.4 Typical cooperative problems

Besides the advantages of being a cooperative there are also some problems that can only be seen at cooperatives. Cook (1995) mentioned some of these weaknesses. The first one is free-riding, which means that members take the advantage of being member of the cooperative but they are not contributing to the strategy and growth of the cooperative. Furthermore he mentioned the short term horizons that some members of the cooperative show, but also the conflicts that can be seen over the shareholders rights in many cooperatives. Furthermore there can be a misalignment between interest of the cooperative members and interests of the cooperatives themselves. And finally he mentioned the so called agency costs that are needed for the management cooperative that becomes too complex (Cook, 1995).

### Concluding remark

After this section on organizational structure the research question: *what is a cooperative and what are its characteristics?* can be answered.

A cooperative is a special type of organization. It is a non-government for-profit business entity comprised of individuals. Furthermore it has by voluntary membership, democratic governance principles (one-member one-vote), and set-up for the benefit of its members (Birchall, 2004). In the definition already three characteristics can be seen. In the definition it is stated that a cooperative has voluntary membership, it has democratic governance principles (one-member one-vote), and it is founded in favor of the members. Furthermore it is characterized by its double layered structure. The cooperative as a whole which is the first layer, while the second layer consists of the members that all own an individual firm as well. Because different interests exist between the two layers a double sensitivity can be seen within cooperatives, individual firm interest and cooperative interests.

Another characteristic of the cooperative is that the members have different roles within the cooperative. First of all members have the role of the patron. This means that a member is a customer or a supplier for the cooperative. Within this customer or supplier relationship the prices paid or received, transaction costs and the level of service quality have to be decided. The second role of the member is the role as owner. Cooperatives are owned by the members who all have a share of the cooperative. This implicates that members are part of the decision making according to democratic rules, although in practice they mostly do not see themselves as owners. The final role of members in a cooperative is the role of community member. This means that they have a social role in the community they are operating in.

Furthermore three types of relationships can be seen between a cooperative and its members.

*The transaction relationship.* From the transaction relationship the user benefit can be derived. There are four aspects of the transaction relationship that express the collective interest. The possibility of delivery, the price, the quality and the quantity are important aspects of the transaction relationship.

*Financial relationship.* This relationship is not that important in this research since we are not interested in the financial structure of the cooperatives. Two aspects of the financial relationship are important though since they have impact on the relationship between the members and the cooperative. The first one is the cooperative surplus, the second one is the way that capital is attracted by cooperatives.

*Controlling relationship.* This deals with the different responsibilities of the different bodies within the cooperative. Since a lot of cooperatives undertake activities different than the original member activities and therefore control is needed to make sure that the rights of all members are defended. Therefore the way the responsibilities are divided between the bodies is important. To make sure the cooperative is led in the correct way, most cooperatives have the following bodies: supervisory board which controls the interests of the members, the board which is mandatory and represents the cooperative and decides about strategy and policy, the management which is responsible for the daily routine. Of course members have responsibilities as well, they own the cooperative and have decision making authority as general members meeting. They appoint or dismiss the board and supervisory board, can decide to dissolve, split or merge the cooperative, approve and dismiss members and finally they make the statutes and control the balance sheet.

### 2.2.3 Concluding remarks on organizational structure

Within the research proposal organizational structure was named as one of the striking characteristics of FresQ but it can be used to assess other cooperatives as well. In the previous sections the literature necessary to assess the strength of organizational structure which determines whether it can be seen as a core competence of a cooperative is provided. The second step is to determine how the cooperatives deal with some typical organizational structure related dilemmas

that are described in literature. These dilemmas are hierarchical vs. networks structure, between vertical accountability vs. empowerment of employees and between centralization vs. decentralization. Assessing how cooperatives deal with these dilemmas is a second way of determining the strength of organization structure. Furthermore literature about strategic networks is provided since a cooperative can be seen as a strategic network.

The third way of assessing organizational structural is by looking at the characteristics of a network. To assess the characteristics of a network depends characteristics size, complexity, density and centrality are used as variables to measure the strength of the characteristics.

The final step in assessing the strength of the organizational structure of a cooperative it is describing the responsibilities of the bodies and their power, as well as the describing the differences in the strategy of the different cooperatives. Together this will be named organizational structure characteristics.

Now three constructs are mentioned to assess the strength of the organizational: namely organizational structure characteristic, the organizational structure dilemmas and the structural characteristics of the strategic network. When strength of organizational structure is high, it will be seen as a core competence of a cooperative in this research and in this way if it can be a driver of sustainable competitive advantage. So the first step of a resource towards a sustainable competitive advantage is by looking at its strength. In Figure 2.6 a graphical presentation of the assessing of the strength is presented. How the strength of organizational structure will exactly be measured will be explained in the theoretical framework and the operationalization of this framework.

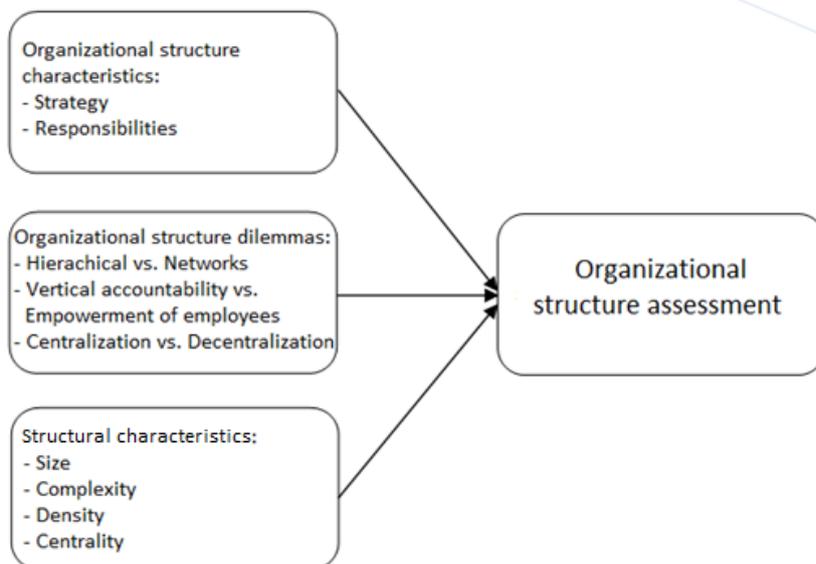


Figure 2.6: A graphical representation of the organizational structure assessment tool

## 2.3 Innovation

Within this paragraph it will be clarified how innovation will be conceptualized and used within this research project. Since innovation is a very broad concept it is necessary to focus on some aspects of innovation that are suitable for the goals of this study. Within this paragraph an answer to the following question will be provided: how to evaluate the strength of innovation a fresh produce cooperative in relation to its competitors? This question has to be seen as a first step in answering the research question: What factors affect sustainable competitive advantage of a cooperative? With special attention to the factors: b) innovation. First a short description about the concept is given. Then the forms and types of innovation will shortly be explained, resulting in concrete knowledge

about which types of innovation are dealt with in the case of a cooperative. Finally it will be investigated how innovation can be measured. In the concluding remark it will become clear how all these measures and indicators of innovation will be combined into a kind of tool which makes it possible to determine the strength of innovation for a fresh produce cooperative.

### 2.3.1 What is innovation

Innovation is many times connected to something new. But when something is new this does not make it directly an innovation. An innovation is more since it also has to have something that is novel and different (Smith, 2010). In this research following definition will be used: 'innovation is the process of growing good ideas/opportunities into widely spread practical use' (Tidd and Bessant, 2009). This definition shows that an innovation is more than an invention. Within innovation it is about making the idea work, while an invention is only the good idea or opportunity.

In most cases an innovation process starts with an invention, with the help of a business model the commercialization takes place which makes it an innovation. After the commercialization it is about the extent to which consumers are willing to adopt a product, this is called diffusion (Smith, 2010). In this research a sustainable competitive advantage can be achieved when diffusion of an innovation by consumers can be seen for a longer period of time.

Nowadays growing attention is spent on innovation as a critical success factor for sustaining competitive advantage within organizations (Hult et. al. 2004) The adoption of innovative ideas is generally intended to contribute to the performance or effectiveness of a company. The capacity to innovate is amongst the most important factors that impact business performance (Hult et. al. 2004). As a result, innovation is often seen as the key ingredient for business success.

Innovation and sustainable competitive advantage are having a clear relationship. In literature growing attention was provided on innovation as a critical success factor for sustaining competitive advantage within organizations (Hult et. al. 2004). Coming up with innovative ideas is in general intended to contribute to the performance or effectiveness of a company.

### 2.3.2 Forms and types of innovation

One of the characteristics of innovation is that it can be seen in many different shapes and sizes. It is used in various other meanings by different people, which makes it hard to make consistent sense of innovation (Smith, 2010). Then categorizing innovations can help to get a clearer view. In this section we will use a categorization method to clarify innovation.

One of the possible categorization methods is to classify innovation according to the applications of innovation which are: product, service and processes (Smith, 2010). As a result there are three forms of innovation namely product innovation, service innovation and process innovation.

Another way of mapping innovation is by looking at the framework of the 4P's which is quite similar to the categorization of Smith but a little bit more specified and slightly more extensive which makes classification more suitable. According to Tidd and Bessant (2009), one can reduce the forms of innovation to these 4P's by looking at the four dimensions of change

- Product innovation: is about changes in the products or services that are offered by an organization
- Process innovation: has to do with the way that products or services are created and delivered
- Position innovation: refers to the changes in the context in which products or services are introduced
- Paradigm innovation: is about changes within the underlying mental models which constitute what the organization does

Furthermore another categorization can be made namely between incremental and radical innovation. This has to do with the degree of novelty.

- Incremental innovations are small minor innovations which can be seen as improvements to existing products, services or processes (Bessant and Tidd, 2007)
- Radical innovations are fundamental changes which represent revolutionary changes related to technology (Dewar and Dutton, 1986) this means that these innovations are referring to a completely new concept, idea, design or product (Bessant and Tidd, 2007)

Bessant and Tidd make the difference between the two clear by referring incremental innovation to 'Do what we do but better' and radical innovation to 'do what we do differently' (Bessant and Tidd, 2007).

### 2.3.3 Innovative climate

Within a cooperative it is wise to have a look at the innovation climate within the organization since it is a group of individual producers that are member of a bigger part namely the cooperative. The innovativeness of the individuals is not what we are interested in within this research, it is the strength of innovation of the whole cooperative that is interesting. To what extend does being a cooperative contribute to the innovativeness. For being an innovative cooperative a climate that stimulates innovation is required. A climate is defined by Bessant and Tidd (2007), as 'a recurring pattern of behavior, attitudes and feelings that characterize life in the organization'. By looking at the innovation climate it is possible to see to what extend innovation is stimulates and how it is facilitated.

Isakson and Tidd have developed a Situational Outlook Questionnaire (SOQ) over the years as a way of assessing the climate on its influence on innovation. Over the years nine dimensions that support creativity and change within organizations were assessed in this SOQ (Isakson and Tidd, 2006). Bessant and Tidd (2007) renamed and sharpened some of these dimensions from the original SOQ. These sharpened nine factors (support and space for ideas needs to be seen as one) that positively influence the innovation climate will be presented and explained in more detail now.

#### **Trust and openness**

Trust and openness deals with the how emotional safe people feel in a relationship, people tend to feel safe when others are seen as competent and when they are sharing common set of values (Isakson and Tidd, 2006). Trust is will be presented in more detail in section 2.5 on social capital. But it needs to be said that when trust is high people feel free to come up with new ideas and opinions, without the fear that reprisals or in the case of cooperatives that others are going to run with the benefits of the ideas (Bessant and Tidd, 2007). When communication is open and easy this stimulates the innovation climate. Openness can be a result of trust since when trust is high people want to contribute commit and cooperate in an open way.

When trust and openness is to low resources are not shared and ideas are not spread because of fear, and therefore no feedback on the ideas is given. The organizational structure and culture does influence this trust and openness. First because of the way they are distribution the resources but also the level of communication within the organization and the degree of autonomy influences the trust and openness (Bessant and Tidd, 2007). When there is not enough communication between the organization and the employees and when there is too little autonomy this influences trust and openness. When there are groups within the organization where trust and openness is that high and this leads to a very innovative climate it is preferable to divide these people and connect them with other people in the organization (Bessant and Tidd, 2007).

### **Challenge and involvement**

According to Isakson and Tidd (2006) challenge and involvement can be seen as the level to which people within the organization are stimulated to think along about the daily operations, long-term goals and vision of the organization. When challenge and involvement is high people are motivated to invest time and energy in the future and success of the organization, but on the other hand when it is low the people are not engaged and feelings of alienation and indifference are present and there is a lack of interest (Isakson and Tidd, 2006).

### **Support and space for ideas**

Support and space for ideas needs to be seen as the time that people in the organization can use for elaborating on new ideas (Bessant and Tidd, 2007). When support and space for ideas is provided this makes it possible to think about and test new impulses which are not in the daily working routine. But furthermore it is also about the support that is provided for these new ideas. In the ideal situation there is an optimum of the support and space that is provided for creativity and innovation. When it is too low people feel that training in thinking about new possibilities will undermine their daily work, and where there is too much support and space people show signs of boredom (Bessant and Tidd, 2007). In the case of Fresh produce cooperatives it of course can be said that the individual members are their own boss and have enough time for thinking about new ideas. But in this research it is about the support and space for ideas that they have to think about innovations for the cooperatives. This has to do with the leadership within the cooperative do they stimulate new ideas, and is the organizational structure in support of these new ideas (Isakson and Tidd, 2006).

### **Conflict and debate**

Conflict has to do with the existence of personal, interpersonal or emotional tensions (Bessant and Tidd, 2006). These conflicts can occur on numerous things such as tasks, responsibilities or processes. Conflicts always exist but when the level of conflict becomes too high this leads to feelings like hate and dislike and there is gossiping going on. It is the goal to realize a situation where there is a constructive conflict situation. Some differences between individuals are good for coming up with solutions but when there is too much difference this leads to unworkable situations.

Connected to conflict is debate. Debate deals with issues and ideas, and not as conflicts on people and their relationships. Debate is dealing with different perspectives and point of views. According to Isakson and Tidd (2006) "debate involves encounters, exchanges or clashes among viewpoints, ideas and differing experiences and knowledge". When room for debate is present in an organization everyone is heard and people are willing to bring forward their ideas. When debate is not present people tend to follow authoritarian patterns without questioning (Isakson and Tidd, 2006). When little debate can be seen many times there are many complaining people about how things are going.

### **Risk-taking**

Risk taking is constituted from the open mindedness of uncertainty and ambiguity (Isakson and Tidd, 2006). When risk taking behavior is present in an organization people tend to take a gamble and are mostly the first to come up with new ideas. When risk taking cannot be seen, people choose for the safe side and it takes a long time before they make a decision. When risk taking minded people are in an organization that is risk avoiding they tend to become frustrated and bored over time (Bessant and Tidd, 2007). But risk taking also does not need to become too high, because then people get confused, and too many people are doing things on their own they are not working together. Working in teams can be a nice way to deal with balancing the amount of risk taking (Isakson and Tidd, 2006).

## Freedom

Freedom in an organization can be described as the amount of independence in their behavior that people within this organization can display. Much freedom can be seen in a climate where people are given autonomy to determine how their work needs to look like (Isakson and Tidd, 2006). In a situation of high freedom people take initiative to acquire and share knowledge, and plan their work themselves, while in a situation of low freedom people are guided more strictly and their role is predetermined.

Again in this research we are talking about an cooperative, of course freedom of the individuals is high at their own businesses, but in this research it is about the freedom they receive within the cooperative.

Besides the factors that have a positive effect on the innovation climate there are some factors that can possibly influence the innovation negatively. Kanter (2003) made a list some of these environmental factors that are stifling innovation some of them are:

- Dominance of restrictive vertical relationships.
- Poor lateral communications
- Limited tools and resources
- Top down dictates
- Formal, restrictive vehicles for change
- Reinforcing a culture of inferiority (innovation has to be from the outside to be good)
- Unfocused innovative activity
- Unsupportive accounting principles

What unites these factors is that they all have to do with behavioral norms that inhibit creativity and in this way to a lack of innovation within an organization. Changing an innovation climate is not simple because it deals with all kinds of behaviors and artifacts that have to be fine-tuned (Bessant and Tidd, 2007). It is not a result of one single adjustment it is often connected to the culture of an organization. This shows that an innovation climate can be a driver for sustaining a competitive advantage since it shows that it delivers value and can be rare and furthermore it is difficult to imitate a good innovation climate.

### 2.3.4 Other innovation measures

When assessing innovation there are numerous measures that can be used. But R&D figures are the most popular innovation indicator (Kleinknecht et al, 2002). R&D is the use of resources to create new knowledge, and to develop new and improved products, processes or services (Oxford B&M, 2006). Since innovation is the process of translating ideas into useful- new products, processes or services (Bessant and Tidd, 2007), R&D activities can be seen as the stage where these ideas for innovation are generated and worked out into feasible concepts. The advantage of R&D indicators is that the data required is relatively easy to gather and to measure (Kemp et al. 2003). A disadvantage of looking at R&D expenditures is that R&D expenditures say nothing about the outcome of the process or the efficiency at which it is applied.

Another innovation indicator that assesses the innovation efforts of an organization is the number of innovation projects started (Kemp et al. 2003). Another indicator for these efforts is whether the decision to innovate is an essential part of the corporate strategy or a coincidence

At last the number of current patents is also a well-known indicator of the innovation output. According to Kleinknecht et al. (2002) is the use of patent statistics as an indicator the second best solution, after R&D, for measuring innovation. In the case of FresQ assessing on patents is not wise since they are in fresh produce glasshouse horticultural products, these products are not easy to

patent. Therefore the indicator of product announcements will be used to determine the share of unprotected innovations and the failed patents

### 2.3.5 Concluding remarks on innovation

In the introduction innovation was named as one of the striking characteristics of FresQ. In the previous sections the literature that can be used for assessing innovation within a fresh produce cooperative was presented. Based on the strength it can be decided whether innovation can be seen as a core competence and thus a possible source of sustainable competitive advantage of FresQ. The section started with explaining the meaning of the term innovative and by presenting the types of innovation.

The first variable to assess innovation is the innovation climate which is based on factors that stimulate innovation these factors are trust and openness, challenge and involvement, support and space for ideas, conflict and debate, risk-taking and freedom. The second way of assessing the strength of innovation is by looking at factors that can stifle innovativeness as well as looking at factors that stimulate an innovative climate. Since cooperatives have a certain social climate with its own rules and characteristics the innovation climate is a good way of assessing the strength of innovation. The third constructs for assessing the innovation are some general measures for innovation that are presented in literature. These factors are expenditure on R&D, number of innovative projects started, the number of new products announcements. This provides some output measures of innovation which makes it possible to see whether the innovations are a result of strategy or coincidence. When putting these factors together with the innovative climate the strength of innovation within FresQ can be assessed. This is important because based on this it will be decided whether innovation can be seen as a core competence of FresQ and in this way can be a driver of sustainable competitive advantage. In Figure 2.7 a graphical presentation is provided on how the strength of innovation will be assessed, this will be called the innovation assessment tool. In the theoretical framework and the operationalization of this framework it will be explained how this assessment will take place within this research.

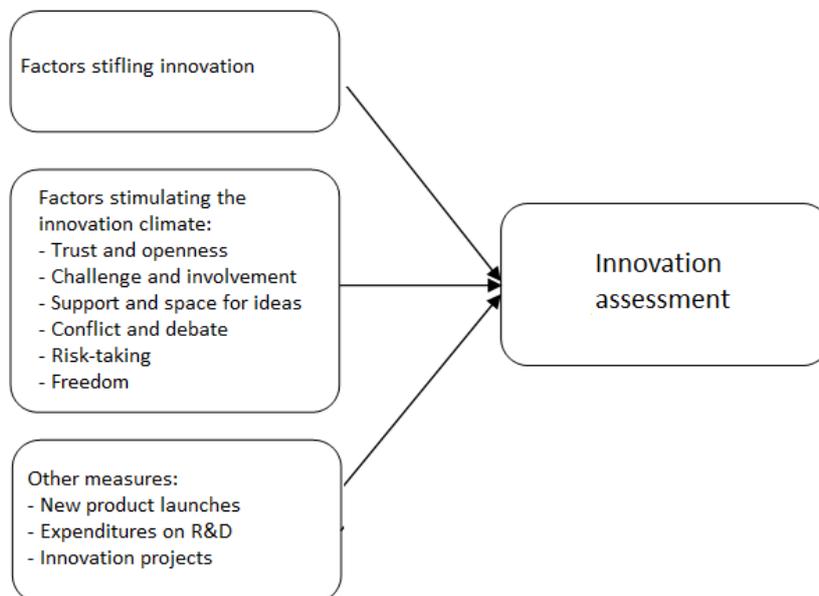


Figure 2.7: A graphical presentation of innovation assessment tool

## 2.4 Entrepreneurship

In this paragraph the factor entrepreneurship one of the striking characteristics from the introduction will be elaborated. This paragraph has to clarify how the strength of entrepreneurship

within a cooperative can be assessed. This is the first part of answering the sub question *What factors affect sustainable competitive advantage of a cooperative? With special attention to the factor d) entrepreneurship.* This as a first step towards assessing whether entrepreneurship is a resource or capability that can lead to a competitive advantage? First the concept entrepreneurship will be explained. Secondly some characteristics of the entrepreneur will be presented. Finally it will be presented how entrepreneurship can be measured.

#### 2.4.1 What is entrepreneurship

Even though is an important and commonly used term, there is not one undisputed definition of what is an entrepreneur or what can be called entrepreneurship. But in many definitions entrepreneurship is connected to the creation of new ventures and the management of small businesses. Furthermore the concept of self-employment and being your own boss is connected to this often (Kirby, 2003). But this does not cover the term completely since small companies cannot naturally be called entrepreneurial and an owner of a firm does not necessarily has to be an entrepreneur. To be able to speak about an entrepreneur more is needed, some personal goals/characteristics and the purpose of profit and growth needs to be included (Kirby, 2003). Furthermore innovative behavior from the owner has to be seen. Within this section these personal goals and characteristics will be explained in more detail.

When trying to explain entrepreneurship two currents can be seen. Or emphasize is on the personal traits and characteristics of the entrepreneur, or emphasize is on the influence or contextual factors such as the availability of support and finance (Bessant and Tidd, 2007). For this research the focus will be more on the personal traits and characteristics, since it is the goal to investigate the success factor entrepreneurship within an already established cooperation. Of course the support from FresQ is also important, but this is already captured within the paragraph about the innovation climate.

#### 2.4.2 Characteristics of an entrepreneur

From literature about this psychological background some characteristics of an entrepreneur can be conducted. The problem is that no agreement can be found in literature about these characteristics. For example Gibb came up with a list of 12 (Gibb, 1990) while Timmons et al. identified 19 characteristics (Timmons et al. 1985). But there are some similarities and some factors which seem to be most important. These characteristics are: Risk taking ability, need for Achievement (nAch), locus of control, desire of autonomy, deviancy, creativity and opportunism and intuition (Kirby, 2003). These factors will be explained in more detail below.

##### **Risk taking ability**

Entrepreneurs tend to be risk takers. But one has to be careful since no real consensus can be found in literature on this. Some researches indeed support the statement that entrepreneurs have higher risk scores, and are better capable the consequent ambiguity and uncertainty that non-entrepreneurs (Koh, 1996). But there are also researches that claim that entrepreneurs are more risk avoiding (Kirby, 2003). But in the end it can be said that entrepreneurs have the ability to deal with risk. It is often said that real entrepreneurs deal with this risk by moderate risk taking. They take risk but only on a level that they can control (Kirby, 2003).

##### **Need for Achievement (nAch)**

This attribute of entrepreneurship was first introduced by McClelland (McClelland 1961, as cited in, Kirby 2003, p. 111), and it suggests that entrepreneurs have a high need for achievement. It is the prospect of achievement that keeps them motivated. According to Kirby (2003) these people with high need of achievement will choose situations that are characterized by:

- Individual responsibility

- Moderate risk taking
- Knowledge of results of decisions
- Novel instrumental activity
- Anticipation of future possibilities

### **Locus of control**

This is based on how a person believes that success is achieved. When one believes that the achievement of a goal depends on a person's own behavior and characteristics this is called internal control. While when someone believes that it is the result of luck or other people's actions this is called external control (Rotter 1966, as cited in, Kirby 2003, p.112 ). Entrepreneurs tend to have a high internal locus of control.

### **Desire of autonomy**

Entrepreneurs tend to have a desire to be in control. It seems that they have a higher need of autonomy and a greater fear of external control than others (Caird, 1991). They value individualism and freedom high and on the other hand they have a dislike of rules, procedures and social norms. Therefore they have difficulties with functioning in constraining environments where creativity is stifled (Kirby, 2003).

### **Deviancy**

According to Kets de Vries (1977) entrepreneurial behavior is the result of negative characteristics and drives. An entrepreneur is an anxious individual, that cannot conform itself to situations, organizes poorly and has a behavior that is kind of self-destructive (de Vries, 1977). As a result an entrepreneur becomes a person with:

- Low self-esteem
- Lacks the ability to reflect critically
- Who dreams of being in total control and being independent of everything and everyone.

### **Creativity and opportunism**

A lot of literature suggests that entrepreneurs are more creative than non entrepreneurs (Kirby, 2003). But some say it is more related to opportunism. Rather than creating a new idea, entrepreneurs are able to see opportunities and make them happen. But within this research the term creativity will be used, since we are actually interested in whether members of a certain cooperative come up with new creative ideas. Finally in the General Enterprise Tendency which is explained later creativity is included and not opportunism.

### **Intuition**

Research has shown that entrepreneurs are intuitive rather than rational thinkers. Instead of taking a structured, analytic approach to problems, which requires attention to detail, adherence to rules and systematic investigation, it is believed that they prefer a more intuitive approach. Here a more holism and synthesis is required, and lateral instead of sequential reasoning is needed. Furthermore they make use of random methods of exploration (Kirby, 2003). But still the importance of this intuition is not always clear.

### **2.4.3 Measuring entrepreneurship**

Various methods have been developed to measure these factors. Some of them are complex some of them are simple to complete, but the reliability and validity is questionable. According to Cromie (2000) the most useful, extensive, easy to access and easy to administer test is the so called General Enterprising Tendency (GET) test which is developed by staff of the Durham University business school. It assesses the following five dimensions of personality Need for achievement, autonomy, drive and determinations, risk taking and creativity. As can be seen the earlier explained dimension

deviancy and intuition are not included in this test. Therefore in this research they will also be excluded

#### 2.4.5 Types of entrepreneurs

In addition to the literature about the typical entrepreneurial characteristics a distinction can be made between two types of entrepreneurs can be made. These two types are social entrepreneurs and technological entrepreneurs

##### **Social entrepreneurs**

Social entrepreneurs tend to have the following characteristics (Bessant and Tidd, 2007)

- Ambitious
- Mission-driven
- Strategic
- Resourceful (the ability to get access to resources as people, money and politics)
- Results-oriented

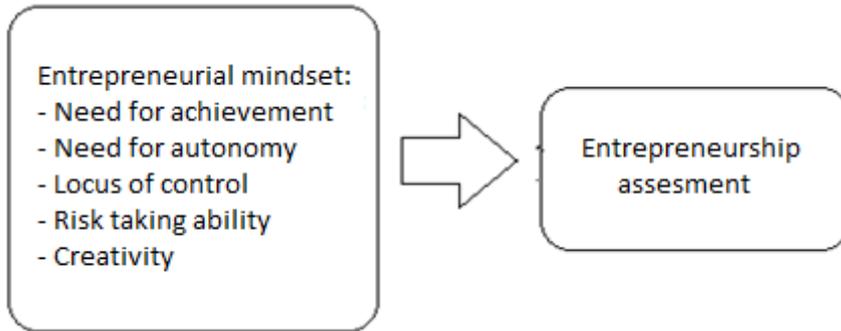
##### **Technological entrepreneurs**

The technological entrepreneur is a different type of entrepreneur where technology plays a big role. A technological entrepreneur has the goal to start a new venture where he can work with his technology independently. A technological entrepreneur can still be driven by his background and psychological profile, but the difference is in the education and training a technological entrepreneur had. With a more technical background and in most cases years of working experience (Bessant and Tidd, 2007). For technological entrepreneurs the drive for independence seems to be more important than the success (Bessant and Tidd, 2007).

#### 2.4.6 Concluding remarks on entrepreneurship

In the previous sections literature about entrepreneurial characteristics that can be used for assessing entrepreneurship is provided. Based on this the strength of entrepreneurship can be assessed and in this way there can be decided whether entrepreneurship is a core competence and consequently a possible success factor for (sustainable) competitive advantage. First the characteristics, risk taking ability, need for achievement, locus of control, desire of autonomy, deviancy, creativity and opportunism and intuition are mentioned as typical characteristics of the entrepreneur. Then the Get Model is presented as a measurement tool for the entrepreneurial mindset. When assessing these characteristics of entrepreneurs within a cooperative it can be assessed how entrepreneurial they are. In the GET model only the entrepreneurial mindset characteristics need for achievement, need for autonomy, locus of control, risk taking ability and creativity are assessed.

Based on these characteristics the strength of entrepreneurship will be determined. The strength determines whether entrepreneurship can be seen as a core competence of a certain cooperative and in this way can be a driver of sustainable competitive advantage. Based on the characteristics of entrepreneurs an assessment model is created. This assessment model is presented graphically in Figure 2.8. How the strength of entrepreneurship will exactly be measured will be explained in the theoretical framework and the operationalization of this framework in chapter 3.



**Figure 2.8: A graphical presentation of the entrepreneurship assessment tool**

## 2.5 Social capital

This paragraph is aimed at revealing what social capital is and how it can be assessed. In this paragraph it needs to become clear how the strength of social capital within a cooperative can be assessed. Furthermore it needs to become clear whether social capital can possibly be a resource or capability that can possibly lead to a (sustainable) competitive advantage. This paragraph will first discuss the concept of social capital then it will move forward to how social capital can be measured and finally member commitment will be linked to social capital.

### 2.5.1 What is social capital

It is difficult to define social capital, according to Fine (2001) this is because it is a complex construct, not very well defined in the past, which includes a large series of disciplines. But several definitions are provided. The definition that can be seen the most is the definition of Putman (1995) who sees social capital as ‘features of social organization, such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit’. A lot of definitions are comparable with this definition such as the definition from Adler and Kazanowski (1998) who stated that “social capital refers to those stocks of social trust, norms and networks that people can draw upon to solve common problems”.

So although not one clear definition can be provided some similarities can be seen within the definitions on social capital. Bowles and Gintis (2002) stated about these similarities that it is “often related to trust, care and interest for one's associates, and willing to stick to the norms of the organization with sanctions for those who do not”. When social capital within a community is high, the establishment of co-ops and similar kind of businesses is higher (Birchall, 2011). Thus social capital is related to trust. But it is important to find out how people learn to trust each other and as a result cooperate (Svendsen and Svendsen, 2000). This has to do with reciprocity which in this research means the existing economic and social relationships. The occurrence of reciprocity can bring people together, lead to the construction of social norms, lead to trust and solidarity and a common identity (Maus 1969 as cited in, Svendsen and Svendsen 2000, p.73). Reciprocity, in the sense of “the ability of people to work together for common purposes in groups and organizations”, has been defined as social capital by Coleman (1988). This shows that reciprocity is also an important building block for social capital. Social capital can also be seen as a more narrow definition of reciprocity, with a focus on trust (Svendsen and Svendsen, 2000). But in this research it is seen as a building block of social capital.

### 2.5.2 Types of social capital

Birch and Whittam (2008) identified four types of social capital that can be used in the social economy:

- Norms – With norms ties among individuals within a community are meant

- Networks – With networks the ties outside a community are meant that can be used to bring society together
- Links – With links the differences between the communities are meant
- Holders – Here people or groups are meant that can bring different communities together

Cooperatives can bring groups together and lead to the development of social capital since it possesses norms that bring individuals together. One of the key benefits of cooperatives is their ability to provide access to information and to link their members to markets were they normally would not have access to since individual members do not have access to the ties outside the network (Mazzarol et al., 2011).

### 2.5.3 Measuring social capital

For measuring social capital it is important to have in mind how it is defined. It is a very complex construct that which can be difficult to measure. But some components of social capital can be seen in a lot of definitions. So when looking at how to measure social capital it is also possible to look at how it is build, which components are needed. When you can identify the strength of the building blocks you can also say something about the strength of social capital. Social capital is important for the establishment and sustainability of a cooperative (Mazzarol et al., 2011). The building blocks that can be subtracted from the definitions are trust, norms of reciprocity and networks. Peredo and Chrismann (2006) have stated this as follows ‘The elements typically identified in the notion of social capital include densely interlocked networks of voluntary relationships, a high degree of reciprocity, trust, a willingness to take risks with the conviction that others will respond cooperatively, and a broad agreement on social norms’.

The above mentioned key elements for social capital will be explained in more detail now to provide an overview of the indicators on which social capital needs to be measured.

#### 1) Trust

This is an element that is mentioned in almost all definitions of social capital. Without trust people are not willing to commit to a economic or social relationship. Trust can be classified according to the ways that it can emerge (Mazzarol et al., 2011).

- Firstly there is *characteristic based trust*. This type of trust is related to characteristics of members that are involved in a certain relationship. In this research the members and employees of the cooperative.
- Secondly there is *process based trust*. Process based trust is a result of how people involved became involved in the relationship in the past
- Finally there is *institutional based trust*. This is the trust that members have in the rules and conventions within the group or relationship they are involved in which are established for the control and governance of the group.

Next to the classification on its emergence a relationship model that is based on three layers of trustworthiness can be used to come to a better understanding of trust. (Mayer et al., 1995).

- *Ability*: Trust in ability deals with the trust members of a relationship have in the ability of each other. Ability in this case relates to the skills, expertise, strength and capacity of an organization or individual
- *Integrity*: Trust in integrity is about a set of principles in which they need to have faith. Both the trustee and the trustier need to accept these principles, mutual integrity is needed.
- *Benevolence*: This means that the people involved in the relationship trust that the counterparty is in the relationship not only for profit but also for other reasons.

## 2) Reciprocity

In section 2.5.1 the term reciprocity was introduced, and it is one of the building blocks of social capital. Reciprocity is important to keep cooperation between individuals running (Mazzarol et al., 2011). Furthermore is reciprocity an element to motivate members to keep participating in the cooperative (McCain, 2008). There are three types of reciprocity that can occur (Mazzarol et al., 2011).

- Direct reciprocity. Direct reciprocity has to do with a direct reward or punishment that individuals receive for their behavior. When acting different than the previous time this has consequences.
- Indirect reciprocity. Here no direct reward or punishment can be seen. Indirect reciprocity means that when cooperation is stopped this leads to a different reputation within the community.
- Spatial reciprocity. In this case individuals do not experience direct or indirect consequences for their actions. This because these individuals are in a position in which they are mobile and can switch between different social networks without negative consequences.

When within a community stability can be seen for a longer period and durable memberships exist, it is mostly easier to develop cooperative behavior (Mazzarol et al., 2011). This means that for reciprocity it is important that stable networks and durable relationships can be seen within a community. So when taking this all together there are three factors that influence the amount of reciprocity: the reputation since a good reputation leads to a bigger chance that indirect reciprocity occurs, the stability of a network and the durable memberships in a network. These three factors can be used as indicators for reciprocity.

## 3) Networks

Networks are an important measure of social capital. This because entrepreneurial networks come together and are structured as a result of the social capital that is available. Furthermore it also leads to interactions within a group or community (Mazzarol et al., 2011). How to evaluate the strength of a network is already explained in sections 2.2.2.4. This way of evaluating will also be used in this part of the research.

### 2.5.4 Member commitment

Closely related to social capital is the identity and the commitment of a cooperative. Member commitment means that members experience something within the cooperative they cannot experience at a different cooperative or outside a cooperative. It arises when members have the feeling of being a part of something furthermore there needs to be a kind of attachment and belonging (Mazzarol et al., 2011). Change and sustainability within a cooperative can be accomplished with the help of member commitment and loyalty that members have towards their cooperative (Fulton, 1999). According to Borgen (2001) is member commitment and loyalty a result of the trust that members of a cooperative have in a cooperative. This latest quote shows that member commitment can be placed under trust one of the building blocks of social capital. Furthermore it becomes clear that the commitment is higher when the reputation of a cooperative is high.

### 2.5.5 Concluding remarks on social capital

From the research proposal social capital can be seen as one of the striking characteristics of FresQ. In the previous sections the literature that can explain the strength of social capital is provided. First the concept is explained and the types of social capital are presented. From the definitions on social capital it can be seen that three factors are coming back often, trust reciprocity and networks. These can be seen as the building blocks of social capital. It is explained how it these building blocks can be

assessed according to literature. Trust can be assessed by looking at different types of trust these are: characteristic based trust, process based trust, institutionalized based trust, trust in ability, trust in integrity and trust in benevolence. Reciprocity can be assessed by looking at the stableness of the network, the durability of the memberships and by the reputation. While the networks can be assessed by looking at the availability of the networks and by the earlier mentioned characteristics of the network. The member commitment can also be connected to social capital since it is connected to reciprocity and also to trust. Assessing member commitment will also be part of deciding the strength of social capital, but it is caught in the assessment of trust and also in the assessment of networks. When the strength can be determined it is also possible to say whether social capital is a core competence of a cooperative or not and connected to that can be a potential driver of sustainable competitive advantage. In Figure 2.9 a graphical presentation of the social capital assessment tool is provided. How the strength of social will exactly be measured will be explained in the theoretical framework and the operationalization of this framework in chapter 3.

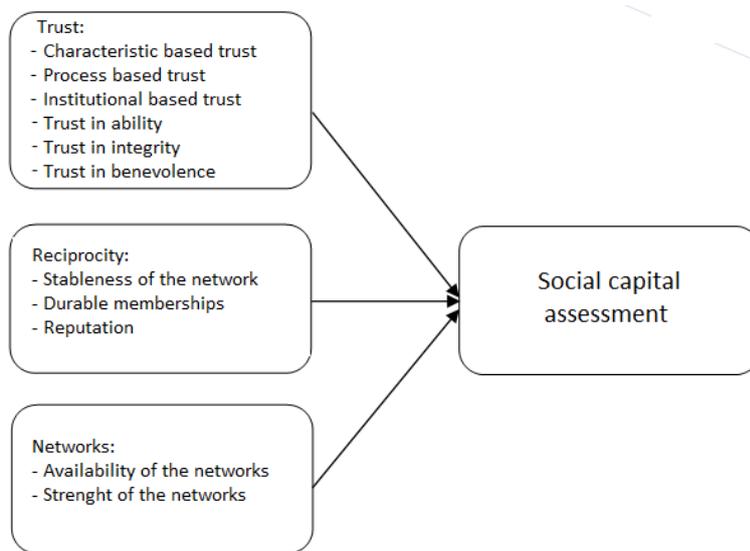


Figure 2.9: A graphical presentation of the social capital assessment tool

## 2.6 Theoretical framework

A theoretical framework is a collection of interrelated concepts, it enables the progress of the research by determining which criteria to measure and what are the relationships that need to be searched for. In this chapter, the reviewed concepts of the literature study; organizational structure, innovation, entrepreneurship and social capital, will be integrated within a framework of dependent and independent variables. Where the independent variables are constructed to result into an answer for the dependent variable. The dependent variable is the center of the research and can be found within the central research question; *Which critical success factors contribute to the sustainable competitive advantage of the cooperative FresQ?*

The dependent variable for this study will be; **sustainable competitive advantage** characteristics from FresQ. The independent variables are those concepts derived from the literature study that are relevant for the case of FresQ and are specified below.

The framework starts with the typical characteristics which were set up in advance as potential factors of sustainable competitive advantage of FresQ. First these factors will be assessed on their strength. The strength of these factors is assessed as follows

- The strength of the factor organizational structure will be assessed based on the organizational structure characteristics, the way that is dealt with organizational structure dilemmas and the structural characteristics of a network. These are the variables presented in Figure 2.6.
- The assessment of the strength of innovation will be based on the innovation assessment tool presented in Figure 2.7. In this model the innovative climate, stifling factors of innovation and the other innovativeness output measures are used as variables to assess the strength.
- The strength of entrepreneurship will be investigated with help of the characteristics assessed in the GET method which is derived from literature; need for achievement, locus of control, need for autonomy, risk taking and creativity. The factors were presented in Figure 2.8.
- The strength of the social capital will be assessed with help of a social capital assessment tool presented in Figure 2.9 in this tool the variables were: trust and reciprocity and on the strength of the network

After the strength of the factors is assessed the next phase will start in which it will be decided whether the factors lead to a competitive advantage. This done by assessing the factors on value and rarity which are derived from literature. When factors do not have value and are not rare the assessment ends. When they do have value and are rare the next phase of the assessment starts.

This phase is called the sustainability phase. Here the factors are assessed on imitability, substitutability and mobility, the variables that determine sustainable competitive advantage according to literature. When a factor/resource is inimitable, not substitutable and immobile it can be seen as a factor that leads to a sustainable complete advantage if it is not the factor is a competitive advantage.

In Figure 2.10 the theoretical framework is presented graphically.

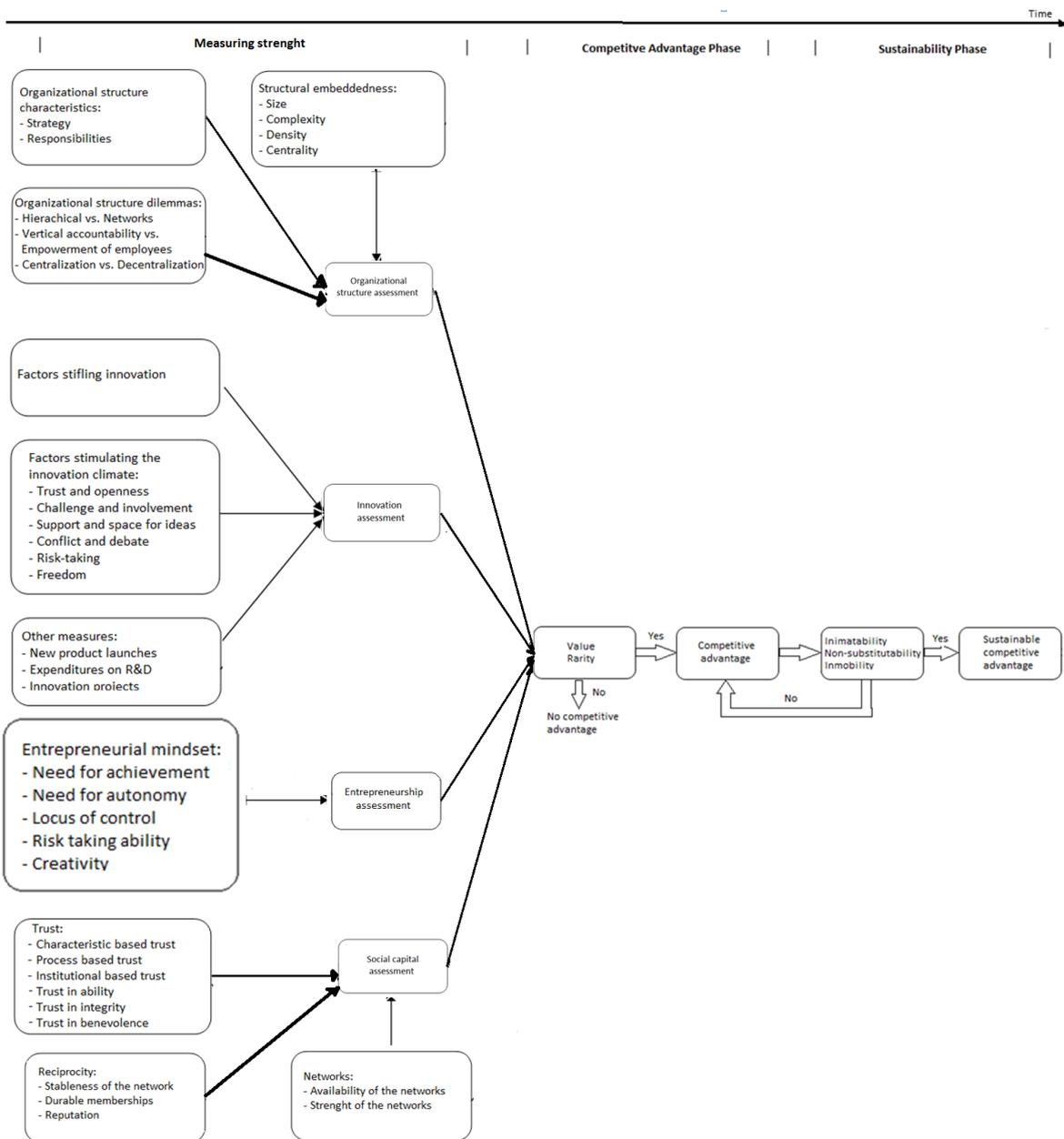
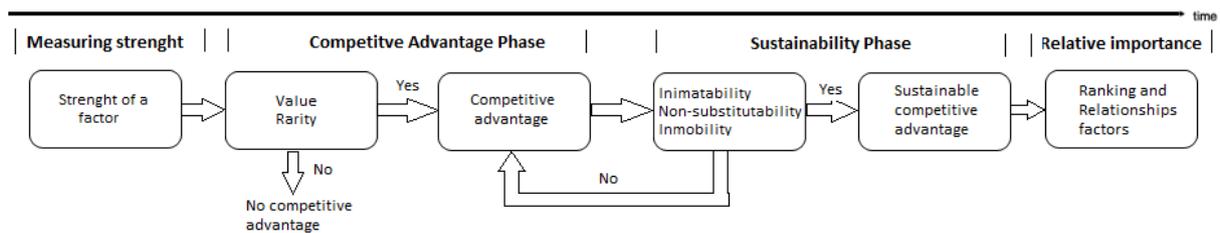


Figure 2.10: Theoretical framework

### 3. Operationalization of the theoretical framework

In this chapter the theoretical framework presented in Figure 2.10 will be operationalized. Per assessment model and for the assessment on (sustainable) competitive advantage a description will be provided about the indicators for measuring the different independent variables and the method of disclosure to collect the data is presented.

Since a the theoretical framework can be seen as a flowchart in which factors are assessed step by step, first this flowchart will be explained. The flowchart is used as a tool of analyses. This flowchart is presented in Figure 3.1.



**Figure 3.1: Flowchart for analyzing factors on their influence on sustainable**

The flowchart consists of four parts with different variables which all need to be operationalized. The first part of the flowchart is measuring the strength of the four factors (Innovation, social capital, organizational structure and entrepreneurship) that were elaborated on in the literature study. Per factor the strength will be measured based on independent variables which are derived from literature. The operationalization of these independent variables will be presented in paragraph 3.1 up to 3.4. Based on this the strength of a factor will be measured. When a factor is evaluated as strong this means that is still a possible factor for explaining sustainable competitive advantage. The factor can continue to the next step of the flowchart. In paragraph 3.5 step two, three and four from the flowchart will be operationalized. In the second step of the flowchart the factors will be assessed on value and rarity to determine whether a factor leads to a competitive advantage. Since the relationship between value and the factors is already made clear in the literature for all the factors it is assumed that it provides value for the cooperative. When a factor has no value and is not rare it cannot continue in the flowchart. If a factor does lead to a competitive advantage step three of the flowchart can be started here it is determined whether a factor leads to a sustainable competitive advantage. This will be done by assessing the factors on imitability, substitutability and mobility variables that need to be operationalized. Step four is determining the relationships between the factors and the relative importance of the factors. To understand which (group of) factors are the most important for the sustainable competitive advantage of a cooperative.

Before moving on to the actual operationalization it has to be explained that the operationalization of step two and three and four of the flowchart in paragraph 3.5 needs to be seen as a tool of analyses while the operationalization of step one in paragraph 3.1 up to 3.4 is as a tool of data collection. This because assessing of the strength will be done based on data from the interviews. While the other steps of the flowchart will be an analyses of the interviews and the desk research by me as a researcher with the indicators in mind but not by actually asking the interviewees about every indicator.

#### 3.1 Operationalization of organizational structure

Within the literature study a tool for assessing organizational structure was presented in Figure 2.6. In this tool three evaluation criteria for organizational structure were presented namely

organizational structure characteristics, dealing with organizational structure dilemmas, and structural characteristics of a network. By evaluating these three criteria it is possible to get an indication of the strength the organizational structure. Within this paragraph it will be explained how this evaluation will be executed. This evaluation will be done by evaluating the strength of the organizational structure at FresQ compared to the competitors which are the greenery and ZON. First an operationalization of the three criteria will be presented in Table 3.1 in which the indicators of the independent variable are presented. Followed by a description about how the results will be analyzed.

Organizational structure characteristics within the three cooperatives. The variables that will be used are strategy, and distribution of responsibilities. This will be done by describing the strategy of FresQ in comparison to its competitors based on strategy indicators. The formal responsibilities will be assessed by presenting organizational charts of the cooperatives while the informal responsibilities are assessed based on how the experts judge the cooperatives on the indicators.

The second way of assessing the organizational structure is by assessing the typical organizational structure dilemmas of the three cooperatives. The dilemmas on which the assessment will be based are hierarchical vs. networks, Vertical accountability vs. empowerment of employees and centralization vs. decentralization. By asking how the experts evaluate the way the different cooperatives deal with these dilemmas an assessment in comparison with the competitors is provided.

The final way of assessing the strength of the organizational structure of a cooperative is by assessing on the structural characteristics of a network. The structural characteristics can be assessed based on four variables these are: size, complexity, density and centrality.

**Table 3.1 : Operationalization table of organizational structure**

Independent variables	Indicators	Method
<b>Organizational structure characteristics</b>		
Strategy	Differences in the long term goals, objectives and the vision on how resources need to be allocated of the different cooperatives (description).	Interview
Distribution of responsibilities	Formal responsibilities are described in an organizational chart, the official state with authority lines (description). Informal responsibilities lines and relationships that cannot be seen in organizational chart. And unofficial working relationships	Interview and desk research
<b>Organizational structure dilemmas</b>		
Hierarchical vs. networks	The number of steps in decision making and strategy development. The amount of influence and decision making authority on strategy of bodies in the cooperatives that are formally subordinate to other bodies. (description)	Interview
Vertical accountability vs. empowerment of employees.	Are members made powerful, do they decide themselves on strategic cooperative decisions or do they have to follow up the instructions of an superior.	Interview
Centralization vs. decentralization	Whether important decisions on strategy are taken centrally by a few people and spread throughout the organization or are decision made decentral by a lot of people. Is the cooperative bureaucratic or flat and decentralized	Interview
<b>Structural characteristics of the network</b>		
Size	Indication of which cooperative has the highest amount of	Desk research

	members in his network	
Complexity	Whether relationships in the network are straightforward based on easy to follow lines or are they very differentiated	Survey/Interview
Density	Are relationships strong and between all the members, or are there a lot of network members that are not in contact with each other.	Interview and Desk Research
Centrality	The extent to which networks are built around a few big players (Burt, 2000)	Interview

### *Analyzing the results*

The strength of the factor organization structure will be evaluated based on the results on the organizational characteristics, the way that is dealt with the organizational structure dilemmas and the structural characteristics of the network. Based on this an evaluation of the strength the organizational structure will be provided by me as a researcher. This will be done by comparing the FresQ with its competitors ZON and The Greenery. When the organizational structure of FresQ is evaluated as high and as stronger than suits the situation than at the competitors it can be seen as a core competence of FresQ. When organizational structure is evaluated as strong this means that it can enter the next step of the flowchart towards sustainable competitive advantage.

With this type of analyses the interpretive paradigm which beliefs that there exists no clear objectivity and reality is a result of interpretation has to be taken in mind (Lincoln, 2000). Scientists assume that the researcher is part of the research and this will influence the results. This interpretive paradigm needs to be taken in mind by the assessment of all other factors as well.

## **3.2 Operationalization of the innovation**

Within literature a tool for assessing innovation was presented. In this tool three constructs were presented to assess innovation namely; stifling factors of innovation, the innovation climate and other innovation figures. In order to get an overview of these three criteria for SCA they have to be measured. Within this paragraph it will be explained how these criteria are going to be assessed to evaluate the innovation of the cooperatives FresQ, compared to the Greenery and ZON. First an operationalization of the factors is provided in Table 3.2, in which the indicators for the independent variables will be followed by how these results are going to be analyzed.

One of the criteria for assessing innovation are the stifling factors for innovation within the three cooperatives. In this research these factors will be assessed by just describing the stifling factors that are mentioned for the different cooperatives within the expert interviews.

The second way of assessing the innovativeness is by assessing the innovation climate of the three cooperatives. In Table 3.2 below the 7 characteristics of the innovation climate which are found in the literature study are presented and it is explained on which indicators they are going to be assessed. For every characteristic that possibly influences the innovation climate the presence of the factor at FresQ will be assessed based on the opinion of the interviewees. For every characteristic it is asked whether the factor based on its indicators holds for the cooperative FresQ or not compared to the presence within the cooperatives ZON and the Greenery.

The third and final way of assessing the strength of innovation within the three cooperatives is by assessing on other figures. The other measures that are used are number of new product launches, expenditure on R&D and the number of innovation projects. Table 3.2 explains on which indicators and based on what data collection method this will be measured.

**Table 3.2: Operationalization of the innovation**

Independent variables	Indicators	Method
<b>Stifling Factors</b>		
<i>Stifling factors of innovation</i>	Factors mentioned when experts are asked if there are factors that oppose innovation within the 3 cooperatives.	interviews
<b>Innovation climate</b>		
<i>Openness</i>	<ul style="list-style-type: none"> <li>- The amount of willingness to share ideas without fear of others running out with the ideas.</li> <li>- Open information sharing by the cooperative towards members.</li> <li>- Amount of emotional safety members experience</li> </ul>	Interviews
<i>Trust</i>	See Table 3.4 trust is also measured for determining the strength of social capital	Interviews
Challenge and involvement	<p><i>Challenge:</i></p> <ul style="list-style-type: none"> <li>- Motivation to invest money and time in the future and success of the cooperative</li> <li>- The amount of big cooperative wide big projects members are involved in</li> </ul> <p><i>Involvement:</i></p> <ul style="list-style-type: none"> <li>- The amount of growers that are board members.</li> <li>- Attendance rate at the general members meeting</li> <li>- The extent to which growers think along about the strategy and future of the cooperative</li> </ul>	Interviews
Support and space for ideas	<ul style="list-style-type: none"> <li>- Indication about the amount of time spend on new ideas.</li> <li>- The extent to which the cooperative board stimulates members to come up with new ideas.</li> </ul>	Interviews
Conflict and debate	<p><i>Conflict</i></p> <ul style="list-style-type: none"> <li>- The amount of tensions between persons or between departments on tasks, responsibilities and processes</li> <li>- Whether conflicts stay internal or can be seen in the press.</li> </ul> <p><i>Debate</i></p> <ul style="list-style-type: none"> <li>- The room for members to come up with objections or new ideas on tasks responsibilities and processes.</li> <li>- How there is dealt with different point of views within the cooperatives</li> </ul>	Interviews/desk research
Risk Taking	See Table 3.3 where risk taking ability of members is also measured.	Interviews
Freedom	<ul style="list-style-type: none"> <li>- The amount of independence cooperative members receive from the board</li> <li>- The amount of initiative that members of the cooperatives take.</li> </ul>	Interviews
<b>Other figures</b>		
New product launches	How many new products has the cooperative launched the last 10 years?	Desk research/ interviews
Expenditures on R&D	Total amount spent on R&D in one year	Desk research
Innovation projects	Number of innovation projects	Desk research

### Analyses of the results

Based on the results of the three parts of the innovation assessment (Stifling factors, innovation climate and other figures) the strength of innovation compared to the competitors will be assessed. Determining the strength is the first part of the flowchart towards sustainable competitive advantage. When innovation is evaluated as stronger than at the competitors innovation will be seen as a core competence of the cooperative. This evaluation is an analysis of the results by the

researcher, so it is his interpretation. When innovation is assessed as high it can continue to the next steps of the flowchart.

### 3.3 Operationalization of the entrepreneurial mindset

In Figure 2.8 a tool for assessing the strength of entrepreneurship was presented. In this tool the characteristics for explaining the entrepreneurial mindset of fresh produce growers were presented. These were need for achievement, locus of control need for autonomy, risk taking ability and creativity. Within this paragraph it will be explained how these are measured to evaluate the entrepreneurial mindset of the members of the cooperatives FresQ with respect to the competitors The greenery and ZON. First an operationalization of the factors will be presented, and then it will be explained how these results need to be analyzed.

In Table 3.1 below it can be seen how the independent variables will be measured. Locus of control is not assessed since it was not possible to assess this based on expert opinions. Normally this will be done based on survey questions or entrepreneurship tests that are developed for individuals, but this is not possible in this research since only experts could be interviewed. The measurement of every variable will be a description about how the experts see the individuals of the different cooperatives. This has to be seen as an explorative description since it only gives an indication of how the experts see the entrepreneurial mindset of the growers. In Table 3.3 it can be seen on which indicators the independent variables will be assessed.

**Table 3.3:** Operationalization of the entrepreneurial mindset

Independent variables	Indicators	Method
<b>Characteristics of the entrepreneur</b>		
Need for achievement	The extent to which growers chose for difficult but feasible tasks, want to be the best and want significant accomplishment (McClelland, 1961). In comparison to the competitors. The extent to which cooperative members want to spread their message of success and want their performance to be visible.	Interview
Need for autonomy	- The extend in which growers want to stand on one's own in comparison to the competitors. - The amount of fear of external control that cooperative members experience	Interview
Risk Taking ability	The relative amount of risk full projects cooperative members are involved in, in comparison to members of competitors. The extent to which cooperative members chose for challenge instead of safety. (when risk seekers are in a risk averse environment they tend to become frustrated and bored) The willingness to search competition and take a gamble (Bessant and Tidd, 2007).	Interview
Creativity	The amount of unusual ideas growers have in comparison to competitors.	Interview

#### *Analyses of the results*

From the results about the entrepreneurial mindset conclusions per variable can be drawn, for every characteristic it can be said for which the growers of which cooperative this holds the most. In this way it becomes clear how FresQ growers are evaluated by the experts based on the four presented variables compared to the competitors. By analyzing the results, as a researcher I will evaluate the strength of entrepreneurship. When the result of this analyses is that FresQ has more

entrepreneurial growers that the competitors entrepreneurship will be seen as a core competence of FresQ, entrepreneurship then can continue to the next step of the flowchart.

### 3.4 Operationalization of the social capital

In the literature study a tool for assessing social capital of a fresh produce cooperative was presented. In this tool three evolution criteria were presented namely trust, reciprocity and networks. By evaluating these three criteria it is possible to get an indication of the strength of social Capital. First an operationalization of the three criteria will be presented. Followed by a description about how the results will be analyzed.

To be able to tell something about trust 6 characteristics of trust are assessed. For every characteristic experts are asked to evaluate how strong this type of trust is in comparison to the competitors. The answers are assessed based on the indicators presented in Table 3.4. Normally a survey is used to operationalize trust but this is not possible within this research. Therefore a description is provided based on the opinions of the experts. This gives an indication about trust but it is not a hard measure but since this is an explorative research this is sufficient.

For the assessment of reciprocity three independent variables are constructed based on literature these are: Stableness of the network, durable memberships and reputation. The indicators of these variables are presented in Table 3.4.

The evaluation of the network is the last measure from literature that explains social capital. There are two variables for the network. First the availability of the networks is accessed and secondly the strength of the network will be assessed based on the characteristics of the network. Since characteristics of a network is also a part of the organizational structure assessment and is operationalized in Table 3.1, here the same indicators and method will be used.

**Table 3.4:** Operationalization of social capital

Independent variables	Indicators	Method
<b>Trust</b>		
<i>Characteristic based trust</i>	The extent to which the actors involved in the relationship trust each other's characteristics such as expertise, drive and sincerity.	Interviews
<i>Process based trust</i>	The extent to which the history and process of getting together influences the mutual trust. This in comparison with the competitors.	Interviews
<i>Institutional based trust</i>	The trust in the rules and conventions that are applicable within the organization. This in comparison with the competitors	Interviews
<i>Trust in ability</i>	Trust in the expertise, power and capacities of fellow members in comparison with the competitors according to experts.	Interviews
<i>Trust in integrity</i>	The trust that the others within the organization adhere to a set of principles that are acceptable and prevailing within the organization	Interviews
<i>Trust in benevolence</i>	Trust that the others within the organization are in it for more than just financial reasons	Interviews
<b>Reciprocity</b>		
Stableness of the network	The amount of years the network exist The amount of member and board mutations over time. Comparison of the relative amount of big conflicts at the	Desk Research, interview

		different cooperatives over time that were in the press	
Durable memberships		How long does the network exist The average amount of members of the cooperatives	Desk research
Reputation		Comparison about how the experts judge the reputation of the different cooperatives	Interview
<b>Networks</b>			
Availability of networks		Indication of experts about the number of networks FresQ is involved in compared to competitors	Desk Research/interviews
Strength of networks		See Table 3.1 strength of a network is already operationalized to measure the strength of organizational structure, and the same indicators will be used here.	Survey/interviews

### *Analyzing the results*

The strength of the factor social capital will be decided based on the results on trust reciprocity and network. By analyzing the results, an evaluation by me as a researcher on the strength of social capital will be provided. This will be done by comparing the FresQ with its competitors ZON and The Greenery. When the amount of social capital is evaluated as high and as stronger than the social capital of competitors social capital can be seen as a core competence of FresQ. Furthermore this means that social capital can continue to the next step of the flowchart towards sustainable competitive advantage.

## 3.5 Operationalization of the sustainable competitive advantage

In Figure 3.1 and in the theoretical framework a flowchart for assessing competitive and sustainable competitive advantage was presented. The four factors that are already assessed on their strength (innovation, social capital, organizational structure and entrepreneurship) will be assessed to decide whether they lead to a competitive or a sustainable competitive advantage. To be able to evaluate the possible competitive advantage of the four factors they need to be assessed on two factors, value and rarity. To evaluate whether a factor leads to a sustainable competitive advantage it needs to be assessed whether a characteristic is not substitutable, has no imitability and has no mobility. Within this paragraph it will be explained how evaluation takes place. First an operationalization of the factors will be presented followed by an indication about how the results will be analyzed.

In the literature the flowchart towards sustainable competitive advantage was presented. In the previous four paragraphs it was explained how the characteristics innovation, entrepreneurship, social capital and organizational structure have been assessed on their relative strength in comparison with their competitors. When their strength was high the four factors will be evaluated in the next steps of the flowchart. Which exists of three extra parts. Part two in which is decided if the characteristic can be seen as a competitive advantage. Part three in which is measured whether the characteristic can be seen as a sustainable competitive advantage and part four in which is decided whether the characteristic can be seen as a critical success factor for sustainable competitive advantage.

To evaluate step two of the flowchart whether a factor can be seen as a competitive advantage a factor needs to be assessed based on value and rarity. The relationship between the four factors and sustainable competitive advantage can already be seen in literature. So when the strength of the factor is already evaluated as high in step one of the flowchart, this means that it does contribute to value. So value will not be analyzed another time. Furthermore it will be analyzed to what extent factors can be seen at competitors as well to assess rarity.

To evaluate step three of the flowchart whether a factor can be seen as a sustainable competitive advantage it will be assessed based on substitutability, imitability and mobility. The interviews will be

analyzed to see what statement of the experts connect to these variables. The interviews will be scanned on statements about the effect of the unique cooperative history, social ambiguity and social complexity that affect the imitability. The same holds for substitutability and mobility, if there are substitution possibilities mentioned for a factor or statement about the mobility can be seen these will be reported. These results will be evaluated and analyzed based on the indicators presented in Table 3.5. But these variables are not specifically questioned in the interviews.

In step four it will be decided what is the contribution to the success of the characteristics when looking at all the possible factors that can explain sustainable competitive advantage. First of all the relationships between the factors that are mentioned in the interviews will be analyzed. Furthermore a top three of factors that influence sustainable competitive advantage is asked to be able to rank them.

**Table 3.5:** Operationalization table of sustainable competitive advantage flow chart

Independent variables	Indicators
Rarity	Whether the resource is simultaneously available or not for the competitive firms (Amit and Schoemaker, IN Wade and Hulland, 2004)
Imitability	Based on three indicators that can influence the imitability <ul style="list-style-type: none"> <li>- Unique firm history</li> <li>- Causal ambiguity</li> <li>- Social complexity</li> </ul> <ul style="list-style-type: none"> <li>- A firm's unique past, which is not possible to duplicate by competitors (Wade and Hulland, 2004)</li> <li>- The extent to which competitors understand the relationship between a factor and the sustainable competitive advantage (Barney, 1991)</li> <li>- Are there the multifarious relationships within the firm or between the firm and key stakeholders and are these relationships complex (Wade and Hulland, 2004).</li> </ul>
Substitutability	A resource has low substitutability if there are few, if any, strategically equivalent resources that are, themselves, rare and inimitable
Mobility	Whether it is possible for competitors to make use of the same resources at a different (physical) place. This can be the result of switching costs, resource co-specialization or high transactions costs (Wade and Hulland, 2004).
Relationships of the factors	How the different factors are related to each other and influence each other. According to the experts.
Rank of the success factors	Opinion of the experts about the factors with the most influence on sustainable competitive advantage, there is asked to give a top three ranking.

#### *Analyzing the results*

Again for the analyses of the results the interpretive paradigm which beliefs on the perception that there exists no clear objectivity and reality has to be taken in mind (Lincoln, 2000). The fact that the researcher is part of the research does influence the results.

The first part of the analyses of the results is part two of the flowchart. Based on the statements in the interviews it will be decided whether a factor provides value for a cooperative. Furthermore it will be evaluated whether the factor in a certain cooperative can be seen as rare. In this way it will be decided for innovation, entrepreneurship, social capital and organizational structure whether it is a competitive advantage for one of the three cooperatives. Whether a characteristic is a competitive advantage is a condition to become a sustainable competitive advantage so to move on in the flowchart.

When a factor led to a competitive advantage for a cooperative it continued to the next part of the flowchart. Based on the statements within the interviews it will be decided whether a factor also

leads to a sustainable competitive advantage. Imitability will be evaluated based on statements about the unique cooperative history, causal ambiguity and social complexity. The substitutability will be evaluated based on its indicators. The same holds for mobility. When a factor is evaluated as being of low imitability, no substitute possibilities can be seen and mobility is not possible this factor will be evaluated as a sustainable competitive advantage. If not it is a competitive advantage.

In part four of the flowchart it will be decided which factors are critical success factors for a sustainable competitive advantage of a cooperative. The results on the top three rankings will be seen as an indication about the relative importance, which results in the critical success factors for a fresh produce cooperative. Furthermore the relationships between the factors that were mentioned are evaluated and an indication of the relationship between all these factors is provided.

## 4. Methodology

In this chapter the methodology for the empirical part of this research will be described. In the first section the data sources used for this empirical framework are presented. The second section explains the methods of disclosures. After that the operationalization will be showed and finally the validity and reliability of the research will be discussed.

### 4.1. Data sources

In the previous chapters the first two sub questions are answered based on the literature. The next chapters contain the empirical research. For the empirical research three different sources of data are used: documents, media and people.

### 4.2. Methods of disclosure

The empirical part of this research consists of three major methods namely; Desk research, interviewing and a small survey. These three methods are necessary to provide a context to place the theoretical framework in and to derive a final recommendation. All methods will be described in this paragraph.

#### 4.2.1. Desk research

The desk research is carried out for two goals. First, annual reports and other data from FresQ, the Greenery and ZON will be obtained to get a good overview of the cooperative and its current organizational structure and strategy. The other purpose of the desk research is to provide an overview of the market characteristics with special attention to the role of the competitors. Due to the short time span for this research, and the lacking ability to get insight competitor knowledge a desk research is the most suitable strategy for acquiring knowledge about the market characteristics, for the competitor knowledge also expert interviews will be used. Secondary data, which is used in this desk research, has several advantages. Firstly, it saves time and money (Ghauri and Gronhaug, 2005). Secondly, it is easier to compare similar data from two or more competitors (Ghauri and Gronhaug, 2005). Finally, it is of high quality and reliable if the secondary data consist of sources of (inter)national organizations and governments, since they are collected by experts which used accurate methods (Ghauri and Gronhaug, 2005). As said before this will not hold for the competitor knowledge which will be gathered by interviewing experts.

In the desk research about the characteristics of the Dutch horticultural sector, first an overview about the three cooperatives will be provided, with special attention to the organizational structure and its strategy. Then the five forces model of Porter will be used to give an overview of the market and as tool to perform the desk research. Special attention will be given to the competitors, without giving a complete competitor analysis, since it is not possible to access all the necessary information, and it is not in line with the goal of this research. For the data of the competitors secondary data are studied, like annual reports, horticultural journals and websites of the three major competitors in this sector.

#### 4.2.2. Interviewing

Interviewing was chosen as a data collecting method, because this is an explorative research where qualitative data is needed to get a good inside of the cooperatives and their success factors since we are curious at specific experiences and specific data from our case. Within a case study it is almost always the goal to gain a deep insight and an in depth view, for this goal interviewing is the best solution. Furthermore there is chosen for interviewing since it gives complementary knowledge about data which can be found in desk research. The interviews will be guided by literature.

As explained in the research proposal this case study is an embedded case, since a full picture can only be obtained if information from a wide range of elements will be collected. The industry experts are interviewed to provide a context in which the cooperative FresQ can be placed. Their knowledge of the sector and their knowledge about the role, and competences of FresQ in relation to the competitors are crucial. Furthermore opinions of people that are outside the organization are important since social desirability can be expected from people inside the organization. Five industry experts are interviewed within this research. One of the interviewees did not want to follow the structure of the interview and therefore he can be seen as a background interview, since he did not provide answers to all the questions that were needed to access the independent variables.

There are three types of interviews: structured, semi-structured and unstructured interviews (Punch, 2005). In structured interviews, questions are planned and standardized in advance and fixed response categories are made. As result, the interviewer is not able to go to any depth. Moreover, flexibility and variation are minimized (Punch, 2005). The stimulus-response nature of this type of interview stresses rational rather than emotional responses (Punch, 2005). The second type is unstructured interviews, this interview is not standardized and the respondent is allowed to discuss reaction, opinions and behavior (Ghauri and Gronhaug, 2005). The final type is a semi-structured interview. Semi-structured interviews differ from unstructured interviews that the main topics and questions are planned in advance (Ghauri and Gronhaug, 2005). In this research a semi-structured interview is used for the following reasons.

First, in a semi-structured interview the interviewer is able to ask subsequent questions which suit the interviewee's replies in order to obtain rich and detailed answers (Ghauri and Gronhaug, 2005; Yin 1994). This is necessary to do in our interview; since just a few persons are interviewed we need to acquire a lot of information of these persons. Second, a little bit structure is needed, because we are not only interested in the rational responses but also in the emotional responses, otherwise it is possible that the interviewee only gives answers on questions which we also could find in other data and reports of the cooperatives and the sector. Third, there are some topics that are important for our interview but still it is an explorative case study so it is not the goal to guide the interviewees too much because in this way it can be possible that important information is not obtained because too much structure is given. So looking to it in this way a part of the interview can be called a structured interview because standardized and fixed response categories are needed. But in practice interviewees already mentioned things about other factors and topics at a time in the interview that other topics and factors were asked. In this way the semi-structured interview changes into unstructured interviews. Since already mentioned things were not questioned again.

In addition, it is needed to guide the interview in a way to obtain enough information in order to be able to answer the sub questions. The topics which will be discussed in these interviews are: innovation, entrepreneurship, organizational structure, general market information, social capital and factors influencing the sustainable competitive advantage.

The interviews were recorded on tape so that the researchers were able to play back the interviews for analysis. The interviews are written out completely so the interviewees can be requested. The interviews were done in Dutch so I made a translation from the interview to the results, which has to be taken in mind when looking at the results.

### 4.3. Validity and reliability

Validity is concerned with the integrity of the conclusions that are generated from a piece of research (Bryman and Bell, 2003)

#### 4.3.1. Internal validity

Internal validity refers to the soundness of findings that specify a causal relationship (Bryman and Bell, 2003). In order to increase the internal validity of this research, triangulation is applied, which is the use of multiple sources of evidence. Sources which are used in this research are literature in the literature study, documents and media in the desk research and interviews with experts are interviewed to provide a comparison between the competitors. Internal validity could have been improved by interviewing people from inside the three organizations since they have more insight and different views on the organizations but this was not possible. To decrease this effect there were within the five interviews interviewees included with a background within all three of the cooperatives.

#### 4.3.2. External validity

External validity is concerned with the question of whether the results of a study can be generalized beyond this particular research (Bryman and Bell, 2003). The results of this research can only be generalized to a certain extent, because it is mainly focused three Dutch cooperatives and the Dutch horticultural market and with special attention to the situation of FresQ. Therefore, the results and the critical success factors can only be extended to cooperatives within the Dutch horticultural sector. However, four different assessment models are generic models and can be used in further researches of other cooperatives. In this study the further generalization is that an indication of the relationship between potential success factors organizational structures, social capital, innovation and entrepreneurship related to sustainable competitive advantage of a fresh produce cooperative is made.

#### 4.3.3. Reliability

Reliability is concerned with the question of whether the results of a study are repeatable (Bryman and Bell, 2003). The reliability of this research is increased, because the different assessment models are developed and used as tools to explore the strength of the characteristics. Furthermore the factors that can be possible causes of sustainable competitive advantage are found in literature, and based on this used to develop a model that can be used for further generalization. By the use of the different assessment models the data gathering and analyzing of the different characteristics is done in a systematic way with the help of semi-structured interviews. But still this is a qualitative research were only some experts are interviewed, so interviewing different experts with different background may lead to different results.

## 5. Results

In this chapter the results will be presented. This chapter will consist of three main parts, first a part in which the results of the organizational and market characteristics are presented. This will be followed by a part on the results of the factors innovation, social capital organizational structure, entrepreneurship and their relationship to SCA. And finally a part in which the results about the relationships between the four factors are presented.

### 5.1 Organizational and market characteristics

In this paragraph striking characteristics and figures of the three cooperatives and the fresh produce vegetable market will be presented. First the market characteristics of the fresh produce vegetable sector will be presented, followed by the history of the three cooperatives is and finally key figures and the formal structures of the three most important cooperatives in the sector will be provided.

#### 5.1.1 Market characteristics

In this paragraph some market characteristics for the glasshouse horticulture sector will be described. First of all some figures of the production will be presented. In Table 5.1 it can be seen that the production within greenhouses of Aubergines, Peppers and especially tomatoes has grown a lot. The last few years it seems that this growth is a little bit attenuated. The total production of the EU 27 shows how this relates to the total production in the EU for tomatoes and cucumbers. But it has to be said that here also open field tomatoes are counted as well. Within Europe the Netherlands is still one of the biggest producers of greenhouse vegetables.

**Table 5.1:** Production of vegetables (x1000 ton) (LEI, 2011)

	1985	1995	2000	2005	2008	2009	2010
<b>Netherlands</b>							
- Aubergines	15	35	33	41	40	46	46
- Cucumbers	350	494	410	440	440	435	430
- Peppers	51	244	285	345	318	370	365
- Tomatoes	525	601	520	660	680	800	815
<b>Europe (EU27*)</b>							
- Cucumbers						1032	
- Tomatoes						14791	

In Table 5.2 the prices of the most important greenhouse vegetables are presented. It can be seen that the last five years the prices have decreased quiet a lot for almost all the products.

**Table 5.2:** Average auction/growers price of some important types of vegetables in eurocents (LEI, 2011)

	2005	2006	2007	2008	2009
<b>Aubergine</b>	82	89	110	81	69
<b>Cucumber</b>	25	24	23	21	19
<b>Pepper (Green)</b>	89	118	113	109	71
<b>Pepper (Orange)</b>	100	142	164	132	91
<b>Pepper (Red)</b>	99	144	151	130	77
<b>Pepper (Yellow)</b>	104	141	137	114	86
<b>Tomatoes round bunch (kg)</b>	79	81	78	73	67
<b>Tomatoes round loose (kg)</b>	66	70	68	63	56
<b>Tomatoes flesh bunch (kg)</b>	77	79	87	86	63

In Table 5.3 the number of holdings and the size of these holdings can be seen expressed in area. In the last decade a trend of a declining amount of growers can be seen. On the other hand it can be

seen that the total cultivated area has been growing. Furthermore table 5.3 shows that a growing amount of larger holdings (more than 5 hectares) and declining amount of small (less than 3 hectares) holdings can be seen.

**Table 5.3: Holdings with vegetables under glass by size and area and (main) type of holding (LEI, 2011)**

	Businesses with ... hectares under glass					Total	
	0.01 to 0.5	0.5 to 1.5	1.5 to 3	3 to 5	5 or more	Holdings	Area
<b>2001</b>	953	1237	678	202	99	3169	4271
<b>2004</b>	752	916	607	222	148	2645	4359
<b>2007</b>	615	688	487	213	208	2211	4571
<b>2008</b>	547	604	420	211	240	2022	4647
<b>2009</b>	491	526	387	201	269	1874	4826
<b>2010</b>	435	472	372	201	286	1766	4986
<b>Specification 2010</b>							
<b>Main holding: Horticulture</b>	366	464	370	201	286	1687	4966

Concluding remark: When looking at the market characteristics it can be seen that vegetable production has grown the last ten years. On the other hand the prices did only decrease in the last 5 years for the most important greenhouse vegetables. This in combination with a decreasing amount of holdings and a growing amount of area cultivated. This shows that the surviving companies only grow bigger in a period that prices decrease. This is important background information in realizing what challenges and risks surviving growers take. Furthermore it provides a background in assessing the performance of the different cooperatives.

### 5.1.2 History

#### ZON

Since ZON is the oldest of the three cooperatives their history will be described as first. For reconstructing the history of ZON we actually need to go back to the end of the 19th century when the auctions for fruits and vegetables have arisen in the Netherlands. With the help of a descending clock buyers were able to get the product. A minimal price for the grower was guaranteed and when there was too much supply it was taken from the market at the auctions were set up according to the cooperative law which meant that the growers had to sell all their products via the cooperative and on the other hand cooperative was obliged to sell all the products of the growers. ZON has a history that starts in 1915 when such a cooperative auction association was set up. After a lot of mergers in 1991 the name ZON (Coöperatieve Veiling Zuidoost Nederland) was introduced when these already merged cooperatives in the southern part of Holland also merged with the Venlose Groenteveiling (ZON, 2012).

From this point ZON also focused on other things than just being an auction, such as the ZON fresh Park but also with integrating the traders function. In 2001 the cooperative introduced the direct membership. Until 2001 many growers were only member of the local marketing cooperatives which were member of ZON. A lot of business activities were placed under work companies which are controlled by ZON Holding B.V (ZON, 2012).

#### The Greenery

In the early 1990s all the producers of fruit and vegetables saw their competitiveness going down very fast. Several ideas were investigated by growers with the goal to improve their market position. In the middle of the nineties of the previous century the 'Commission Veerman' was formed to

investigate the possibility of a merger between the biggest fruit and vegetable auctions with the goal to switch from a system where the product was auctioned into a system in which the product was sold through mediation (Bijman, 2002). In this way it would be easier to become more market oriented for the auctions in the market, exporters would be able to buy the volumes the retail wanted and the prices could be protected because foreign competitors could not come with prices under the Dutch prices (Bijman, 2002). After some negotiations nine cooperatives with the products fruit, vegetables and mushrooms decided to merge in 1996. They started a new cooperative which got the name 'Voedingstuinbouw Nederland' (VTN). ZON veilingen was not joining the merger. Not much later in 1997 this new cooperative merged with 'Centraal Bureau Tuinbouwveilingen' (CBT), which was a cooperative that also provided marketing services. As a result of this merger the activities of CBT were integrated in The Greenery International. This was done to combine all commercial activities of the connected cooperatives so a central marketing and sales organization could arise. This was the beginning of the Greenery which in the beginning operated next to the cooperative VTN. The Greenery wanted to become a powerful European marketing organization in fruit and vegetables, they wanted to achieve that they became preferred supplier of the European retail (Bijman, 2002).

The establishment of the Greenery can be seen as a response to the dissatisfaction of with the traditional way of selling Dutch fresh produce. The first reason of this dissatisfaction was because it led to high prices for large buyers. Secondly the big retailers wanted big quantities which the auction could not provide. And last but not least buying at the auction makes negotiating with producers about delivery conditions such as time, quality special packaging and so on impossible (Bijman, 2002). This led to the situation where growers with specialties were not rewarded. Another problem that existed was that growers were not challenged to increase quality. These disadvantages were the reason that VTN/Greenery wanted to become a marketing organization. Under this marketing several new functions were introduced for the cooperative. These were marketing wholesale, innovation quality control of production process and processing.

This new situation led to a struggle between the cooperative and its members. The Greenery, in its early years, spoke outwardly that it wanted to separate the production and the marketing function. The growers would do production and The Greenery was responsible for marketing. This strategy conflicted with the goal of many growers. For example the Rainbow growers wanted to have a voice in the marketing strategy for their products and to maintain control over their products until they reached the customer, in order to guarantee high product quality. These growers also wanted to do the packaging of their own products. This shows the main conflict, as a result of the new marketing strategy the Greenery made the grower –Greenery relationship subordinate to the Greenery-customer relationship. The Greenery wanted to decrease the amount of influence that member had, this because it made them less flexible and it was already difficult to build up long term relationships with the retail. Therefore the decision making shifted from democratic to autocratic. While the members interest shifted from homogeneous to heterogeneous (Bijman, 2002). This led to a struggle that is still going on, and which made already a lot of growers make the decision to step out of the Greenery.

Although in the beginning it was the goal to get high market power with good relationships to the traders and in this way control over the price there were problems. The struggle led to some problems, the main reason was that growers did not trust the week prices. The exporters that were seen as friends still saw The Greenery as the auction it was in the past, they wanted to buy their products for the lowest price possible. Furthermore no bottom price could be guaranteed because over production could not be destroyed because of the Dutch rules (Hubers, 2011). The way to deal with this was in the eyes of the Greenery was to take over the traders, in total Greenery bought 20 traders, with the goal to come to direct contact with the retail. In reality this did not solve the problem. The traders did not adopt the strategy of The Greenery. Traders kept their own

mentality and did not adapt the marketing or product quality optimization. Furthermore a lot of people with knowledge and the network left the trading organizations and started working on their own or within other companies.

### **FresQ**

The emergence of FresQ can be seen as a reaction of growers who did not support the strategy of the Greenery. But before FresQ as it is known now some other steps have taken place, in this section it will be explained how the History of FresQ looks like. Furthermore it will be explained why FresQ can be seen as a reaction to The Greenery.

It all started when two pepper growers, Wim Grootcholten and Karel Vromans, which had the vision that there was a market for high quality greenhouse vegetables. They were able to convince five other growers to collaborate on marketing to realize this vision. Together they founded the growers' association Rainbow Growers Group U.A. in June 1997, with the goal to work together on this marketing but also on other things like for example quality control (Bijman, 2002). In the beginning, the products of the Rainbow Growers were still sold through the cooperative vegetable auction and this did not help to realize the marketing ambitions of Rainbow because direct trade with supply specific markets was not possible within the auction.

During the establishment of The Greenery in 1996, the growers had the hope and expectation that this new organization would facilitate in their needs to produce for specific customers and to organize product-specific marketing programs (Bijman, 2003). But as explained vision at the was that at the Greenery the growers had to do the production and The Greenery would do marketing.

As a result of this conflicting vision, the association Rainbow was transformed into the cooperative Rainbow in December 1998 this new cooperative was named Cooperative Growers' Association Rainbow (CTR) (Bijman, 2003). Another very important goal was getting EU subsidies. Other growers and grower groups were invited to join their initiative because CTR realized that they needed to increase in scale to be interesting for retail. Not only individual growers became members of CTR, also groups of growers started to participate, such as Red Star Trading, the Green Nature Group. As a result of the growth under this cooperative, several sales subsidiaries were set up, such as Delft Cooperative Growers BV, Rainbow Growers BV and Kleinpak BV. These individual BV's are all placed under one holding company, CTR Holding BV, which had cooperative CTR as its 100% shareholder. Marketing was not the only goal of CTR. A new expansion took place in 2000 when the following grower groups entered CTR: Action Pearl (tomato growers), Sweet Color Pepper (pepper growers), Looije, Van Vliet, and Harting Vollebregt (all three growers of cherry tomatoes), and Gresnigt Brothers (growers of both tomatoes and peppers). After this expansion CTR had a number of 75 growers, a greenhouse area of 250 hectare, and an annual turnover of 250 million guilders (Bijman, 2002).

As a result of the growth of the cooperative the members wanted a discussion about the strategy this resulted in the following three core tasks of CTR: guaranteeing and enhancing product quality, getting EU subsidies, and marketing. In 2002 the decision was taken to turn CTR into a common marketing organization for all members as a result the sales activities of the grower groups were transferred to CTR.

In January 2003, FresQ (60 members) merged with Quality Queen Growers Group (20 members). Economies of scale were the most important reasons for the merger. Were FresQ wanted a growth of the organization to increase efficiency and the increase the amount of EU funds, QQ wanted to lower the administrative burden of getting EU funds. The members of QQ maintained control over

the sales of their product through their sales companies United West Growers (for the pepper producers) and Quality Queen Sales (for the five tomato growers).

The establishment of QQ in 1996 shows some parallels with the establishment of FresQ. The growers that started QQ had comparable as the growers that started FresQ namely to have control over the marketing and sales of their products, and to get EU subsidies. And again there ambitious could not be met under the flag of over the cooperative auction and later The Greenery.

The above shows that members of FresQ were different than those of other cooperatives. Members of FresQ wanted involvement in the marketing of their products, to meet with their customers and discuss product quality, packing, marketing, innovation, prices and other supply conditions (Bijman, 2002). While growers of other cooperatives focused on production and let their cooperative marketing organization carry out the sales process.

FresQ was restructured in the previous century: a holding company was formed directly under the cooperative. This holding became owner of the sales companies that are currently owned by the grower groups. The sales companies will continue to do the marketing and sales for particular grower groups. Control over the marketing and sales process remains with the growers, this because they appoint the management of the sales subsidiaries of FresQ (Bijman, 2003).

In the last decade this holding was continued, and six sales subsidiaries were formed around big growers within the cooperative. The number of members stayed relatively stable and the focus can on developing all kind of services that facilitated the growers. A complete new ICT system was developed and packaging facilities were improved. The growth of FresQ has been on tomatoes will the other crops did not show any growth.

*Concluding remark;* Different history paths can be seen for the three cooperatives. The biggest and most important difference in these histories is that the Greenery and ZON are both cooperatives that are the result of mergers or takeovers. While FresQ is started from scratch by some growers with the same beliefs and values. As a result FresQ did not have growers in their organization which they do not want to join. While ZON and the Greenery have members that became members of because of the merger or the take-over. This indicates that there is a big chance that within these cooperatives members with different values and beliefs have to work together. This is important to know since one of the indicators for imitability is the unique firm history.

### 5.1.3 Organization of the three cooperatives

Before the organization of the three cooperatives will be presented in more detail first some key figures of the three cooperatives are presented in Table 5.4 below.

**Table 5.4: Key figures on the three cooperatives**

<b>FresQ</b>	2005	2006	2007	2008	2009	2010	2011
Member turnover (million Euro / year)	268	317	347	393	407	480	445
Number of members	96	90	88	79	76	76	79
Number of employees (FTE'S)	12,4	12,7	13,7	14,7	15,9	17,8	18,7
Hectares	482	524	590	694	757	755	770
<b>The Greenery</b>	2005	2006	2007	2008	2009	2010	2011
Member turnover (million Euro / year)	736	778	810	763	633	749	636
Total turnover (million Euro/year)	1.909	1.950	1.941	1.795	1.626	1.843	1610
% member turnover of total turnover	38,6	39,9	41,7	42,5	38,9	40,6	39,5
Number of members	2104	1350	1250	1150		1000	
Number of employees (FTE'S)	1699	1693	1638	1661	1655	1631	1507

Hectares	2005	2006	2007	2008	2009	2010	2011
<b>ZON</b>							
(Member) turnover (million Euro / year)	207	237	283	281	267	334*	326*
Number of members		507	464	422	395	372	377
Number of employees (FTE'S) (ANNUAL AVERAGE)	195	182	156	156	160	161	

Source: Greenery, FresQ and ZON annual Reports

\* Other way of calculating turnover more than only member turnover

In the following section the formal structures of the three cooperatives are described briefly.

**ZON**

Below the organization chart of ZON is presented. There are two because it shows the distinction between the structure of the cooperative grower organization ZON and its relationship with ZON Holding B.V on the one hand and the structure of the cooperative growers organization ZON and the relationship with the enterprise on the other hand.

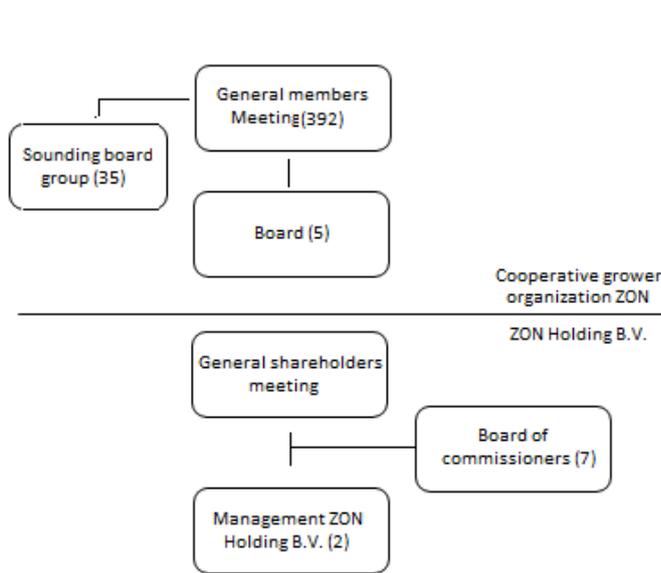


Figure 5.1: Cooperative grower organization ZON and organization ZON and enterprise (ZON, 2012)

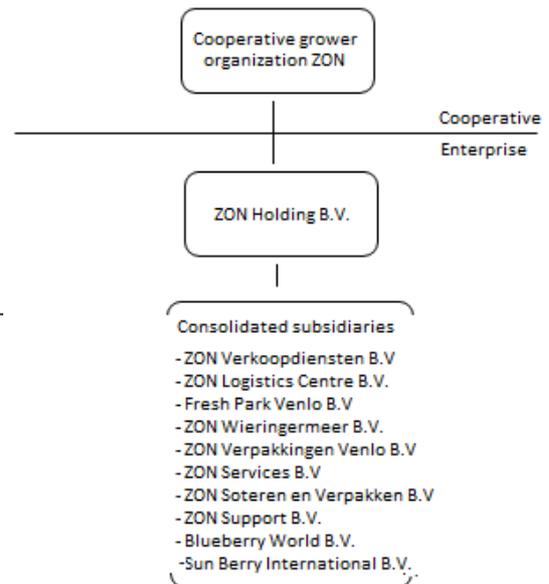


Figure 5.2: Structure Cooperative growers ZON Holding B.V (ZON, 2012)

In Figure 5.1 it can be seen that the cooperative grower organization ZON exist of three bodies. First a general members meeting with 392 members which is the most important body of the cooperative. They are supported by a sounding board group which exists of 35 people which are representatives of the grower groups and product commissions. The general members meeting chooses the board which consists of 5 members.

This cooperative grower organization ZON is above the ZON Holding B.V and decided the strategy and structure of the holding. The Holding consists of the general shareholders meeting which is the cooperative growers organization ZON represented by the board. A board of commissioners which exists of 7 persons. A direction of the holding which consists of 2 people and they are responsible for the daily affairs.

In Figure 5.2 this relationship between the cooperative which is the cooperative growers organization ZON and the enterprise ZON Holding B.V is made even clearer. Here it can be seen that

ZON Holding B.V. consists of a lot of consolidated subsidiaries. In Figure 5.2 only the most important ones are presented.

### Greenery

Below the organization chart of the Greenery is presented.

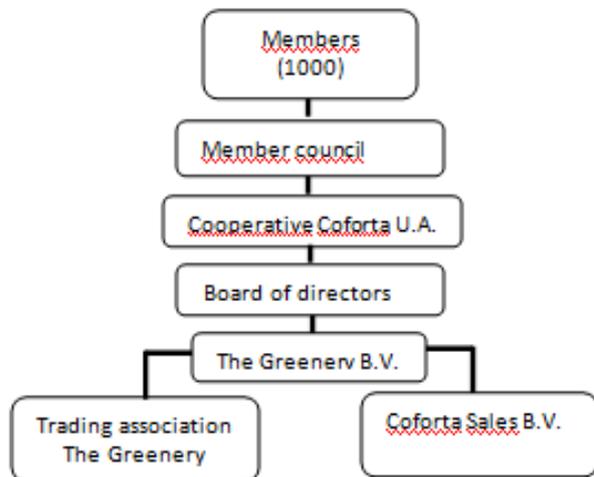


Figure 5.3: Organization chart The Greenery (The Greenery, 2012)

### Coforta

The Greenery is owned by the cooperative Coforta which has 1.000 of Dutch growers that are member of the cooperative. The members had to choose a distribution relation in 2011: 82% of the members have a preferred supplier relationship with distribution via the Greenery, 18% of the members did chose for a distribution via a transaction relation with Coforta Verkoop B.V but this represented 40 % of total cooperative volume, 6 members have chosen for a different distribution relationship (Coforta, 2012). The members of Coforta together are involved in the decision making process of the cooperative. Together they decide the strategy of the cooperative and it daughters. More than 10% of the members of Coforta are involved in an administrative function at the cooperative or its companies (Coforta, 2012).

### Department boards

The members of Coforta are divided over four regional departments. These regional departments are North, Middle, South and Westland. Every department has its own department board, this board is chosen by its own members (Greenery, 2012).

### Member council and the board

The member council of is formed by all the department board members of the four regional departments. This member council is the highest administrative body within the cooperative and it is concerned with things like the changes in the statutes and the appointment of board members.

The goal is that the number of board members is equally divided between regions and product groups.

### Product Advice Committees

Within the Greenery one works with so called Product Advice Commissions (PAC's). There are 17 of them and they are there for all specific product groups. They provide advice towards the cooperative on things like food safety and Quality (Greenery, 2012).

## FresQ

The organization chart of FresQ can be seen in Figure 5.4.

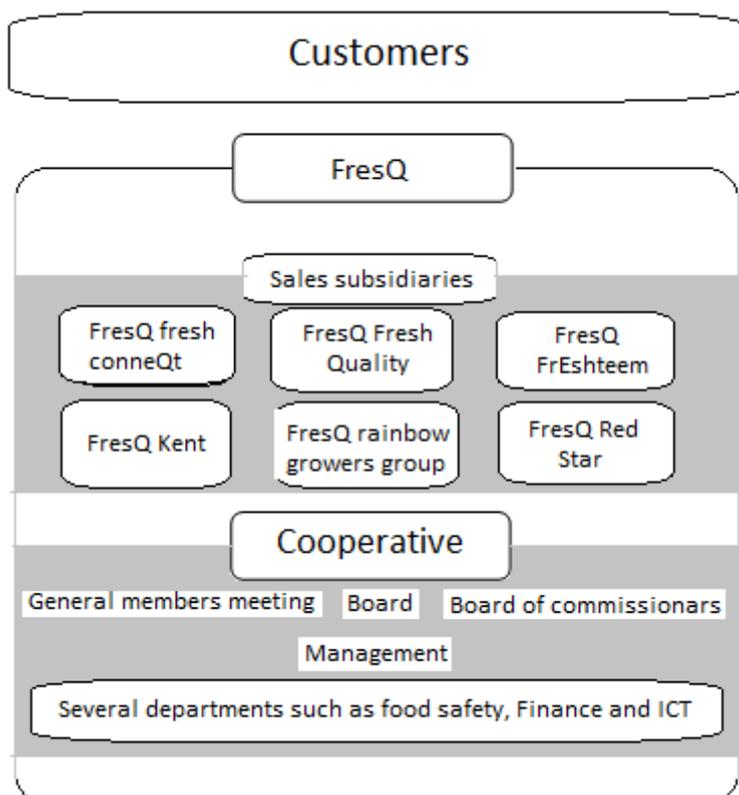


Figure 5.4: Organizational structure chart FresQ (FresQ, 2011)

### The cooperative

The cooperative consists of the general members meeting in which all the members are united. This is the most valuable body of the cooperative and they choose the board of FresQ. The board of FresQ consists of 9 people and 4 advisers. Furthermore the formal structure is completed with the board of directors which consists of 5 people and which is responsible for the control of the board and the cooperative. And also a direction which is concerned with the daily affairs.

Furthermore the cooperative does all kind of activities for its members as a facility provider and therefore there are departments within the cooperative such as marketing, advocacy, quality control and food safety, (financial) administration, ICT communication and various subsidy projects (FresQ 2012).

### Sales subsidiaries

In Marketing and distribution organization FresQ consists of a cooperative and some sales subsidiaries. These sales subsidiaries are 100% owned by FresQ but not part of the cooperative. In Table 5.5 the sales subsidiaries are presented in more detail.

Table 5.5: Sales subsidiaries and their products, number of members and hectares

Sales subsidiary	Product, number of members and hectares
FresQ Fresh ConneQt*	Produces: tomatoes, aubergines and cucumbers. Members: 76 Hectares: 690
FresQ Fresh Quality	Produces: tomatoes, bunch tomatoes and peppers Members: 11 Hectares: 50

FresQ FrEsteem	Produces: tomatoes, peppers and cucumbers Members: 40 Hectares 480
FresQ Kent	Produces: tomatoes, peppers and cucumbers. Members: All members in United Kingdom Hectares: 24
FresQ Rainbow Growers Group	Produces: tomatoes, peppers, cucumbers, aubergines Members: 17 Hectares: 110
FresQ Red Star	Produces: tomatoes Members: 5 Hectares: 55

\* In total 72 growers came over on 01/01/2012 from Coforta and they are going to deposit their product via FresQ Fresh ConneQt.

*Concluding remark;* From the formal organizational structure presented in the organizational charts only a few differences between the cooperatives can be seen. FresQ and ZON make use of a board of commissioners while at the Greenery they call this body the board of directors. One of the differences that can be seen is that ZON and the Greenery both have a holding in which they undertake their trading activities and other activities. FresQ does not have such structure since they do not fulfill the function of a trader. Another difference that can be seen is the sales subsidiaries that FresQ has, this structure with six points where the customers can buy their products cannot be seen at the competitors.

## 5.2 Results on the factors

In this paragraph the results from the interviews will be presented. This section consists of four paragraphs, one for every factor of which the strength is going to be assessed namely innovation, social capital, organizational structure and entrepreneurship. Every section consists of two parts, the first part in which the results on the independent variables are presented and a section in which the results of the influence of the factor on sustainable competitive advantage are presented. Even though there was not actively asked about these influences there were some statements in the interviews which need to be reported.

### 5.2.1 Results organizational structure

In this section the result on organizational structure will be presented. The results are based on the expert interviews and desk research.

#### Organizational structure characteristics

##### **Strategy**

During the interviews it was mentioned by three interviewees that the strategy of FresQ is to be an organization that is as lean and mean as possible. The strategy of FresQ is that the cooperative only has a role as facilitator, they only do what the members cannot do. So this means that they make use of as little as possible resources. It was stated that for the competitors this was different, within ZON and The Greenery the cooperatives are more than a facilitator, they also operate as traders. FresQ has chosen to be an organization that is very unambiguous. This choice makes that the objectives of the FresQ differ from the other cooperatives. FresQ decided it will only be a marketing/distribution cooperative and not also a trading company. Two reasons for this were provided in the one of the interviews. The first reason was that members are that large nowadays that they want influence on the distribution and marketing otherwise they will leave the cooperative. The second reason that was

provided was that in this way FresQ was seen as an interesting supplier and not as a competitor of the trading cooperatives such as the Greenery.

### **Distribution of responsibilities**

A description about how the responsibilities lay within the different cooperatives can be found in the paragraph 5.1 where the structure of the three cooperatives is presented in organizational charts. About the informal responsibilities it was stated by one expert that because of the small character of the cooperative, with people that know each other personally the responsibilities are not always as formally described.

### Organizational structure dilemmas

#### **Hierarchy vs. networks**

During all the interviews it was stated that within FresQ things are less hierarchical and decisions were taken faster than within ZON and especially The Greenery. Within FresQ power is at the sales subsidiaries, these are formally lower bodies than the board but in practice they decide on important strategic matters it was stated three times. Furthermore it was three times mentioned that the board members and the chairman are more between the growers within FresQ, the former chairman of FresQ stated that the members always decide and are the most important. The Greenery was very hierarchical and arrogant and that this was a reason that many growers stepped out The Greenery according to two interviewees.

#### **Vertical accountability vs. empowerment of employees**

In every interview it was stated that within FresQ the empowerment of the employees and growers since their influence on strategic decisions is bigger than within ZON and Greenery. One interviewee quoted 'within the Greenery you have to do what is asked you to do within FresQ you are asked to advise what the cooperative should do.

#### **Centrality vs. decentrality.**

During all of the interviews it was stated that that within FresQ everything was organized less central than within the three other cooperatives. It was two times stated that The Greenery is much more bureaucratic than FresQ, and FresQ was named a flat organization three times. A lot of responsibilities are within the grower groups. Only things that can better be done together such as administration, applying for subsidies and food safety are done centrally.

### Network Characteristics

#### **Strength of the network**

*Size:* The size of the FresQ network is according to the two interviews very big, they are a national and international known player in the market according to the interviews. But this holds for the competitors as well.

*Complexity:* FresQ exists of a lot of producer groups which themselves also consist of smaller groups which makes the internal complexity quite high since a lot of informal relationships can be seen, two interviewees mentioned. Furthermore it was mentioned in three interviews that when looking at the sector is a small world, in which everybody knows each other.

*Density:* It was mentioned in three of the interviewees that although contact between the sales subsidiaries the strongest relations can be seen within the network of the sales subsidiary. So the contact is the strongest in smaller networks. Although it was also mentioned that all FresQ members know each other well and are in contact with each other.

*Centrality:* In four interviews it was stated that FresQ was organized around a few very big and influential growers which are the most extravert and proud. These growers are very well known and have the biggest network within the organization it was stated in three interviews.

### Sustainable competitive advantage and organizational structure

In this section the results on Sustainable competitive advantage related to organizational structure are presented. Even though there was not actively asked in every interview for these factors, since the sustainable competitive advantage assessment is a tool for the analyses and not for data collection, there were some statements during the interviews on this factors. These results are presented in Table 5.6.

**Table 5.6:** Results on sustainable competitive advantage in relations to organizational structure

Factor	Results
<b>Rarity</b>	he organizational structure as in FresQ cannot be seen at the competitors (5) A different voting system exists at FresQ. The decentralized and less hierarchical structure is named rare. (2) The distribution of power with the high amount of power for the growers cannot be seen at competitors
<b>Imitability</b>	
- <i>Unique firm history</i>	FresQ could start from scratch they could organize their cooperative according to their own beliefs while for the competitors this was not possible since they were the results of mergers (3).
- <i>Causal ambiguity</i>	In 16 years the competitors still did not understand how to lower the overhead costs. (1) In three interviews it was stated that the competitors seem to not understand the advantages of the less hierarchical organization with power for the growers
- <i>Social complexity</i> .	The organizational structure of FresQ with all its grower groups, and groups underneath these grower groups is hard to fathom. This is a complex situation with personal relationships which grew over the years that are difficult to understand (2).
<b>Substitutability</b>	-
<b>Mobility</b>	-

### 5.2.2 Results on innovation

In this section the result on innovation will be presented. The results are based on the expert interviews and desk research. First some general results will be presented followed by results on stifling factors of innovation, the innovation climate and other measures of innovation.

In the glasshouse horticulture sector the focus is on process innovation that is based on lowering costs and improving product quality. There is also some product innovation but this is incidental according to 3 of the interviews. The statement that the focus is only on process innovation to decrease costs and improve quality is supported by a report called 'Het innovatiesysteem voor de Nederlandse glastuinbouw in 2020' (Hekkert, 2010). According to SIGN an organization that focuses on innovation in the Glasshouse sector the focus from the grower is indeed on quality and quantity of the product, while the economic revenues of these innovations are minimal and go to the other players in the chain (SIGN, 2011). In two interviews it was stated that focusing on innovation that

changes the supply chain, or on changing towards a more consumer driven product assortment would be a better way of innovating.

### Stifling factors of innovation

In this section the stifling factors of innovation that were mentioned in the interviews or can be found in the desk research will be mentioned.

It was mentioned by three interviewees that they incorrect use of GMO money can be seen as a stifling factor of innovation, this because GMO money was invested for the wrong purposes. It was mentioned twice that FresQ did make better use of GMO money. Another stifling factor that was mentioned three times is the collectivity of a cooperative that slows down innovativeness. Some innovations cannot be expressed in the price of the product since innovative product are sold together with the less innovative products. One of the interviewees named that there is no clear innovation strategy as a stifling factor, he called innovation in the sector a one trick pony. And finally three of the interviewees called the role of the traders as a stifling factor of product innovation since they do not want to sell differentiated products.

### Innovation climate

The following indicator for the strength of innovation was the innovation climate. In this section the predictors of the innovation climate will be addressed one by one.

#### **Openness**

Within three interviews it was stated that FresQ is the most open in exchanging information about what happens to a product after it is delivered to the cooperative such as information about which subsidiary sells their products. This gives better insights to growers about the results of innovations. Within other cooperatives especially within the Greenery the information was more a closed it was stated within two interview. One interviewee called it a black box Furthermore it was stated within two interviews that growers of FresQ can switch from one grower group to another without problems, this can be seen as an indication that openness between members is high since innovative ideas are openly communicated within these producer groups without fear of others running out with the ideas. But it was also stated within two interviews that this is only the fact when growers need each other to work on an innovation, when they can do the innovation on their own they will logically not exchange all information.

#### **Trust**

The results on trust will be presented in section 5.2.4.

#### **Challenge and involvement**

According to three of the interviews the challenge and involvement of FresQ growers is illustrated by step to start a complete new cooperative, this members wanted to invest money and time in the future of the cooperative. Furthermore projects such as big packaging stations and a complete new administration system were mentioned as big projects members wanted to invest in.

An indication about the involvement is the board which almost completely exists of growers, only the chairman is not. The figure of the attendance rate of 80% within the general members meeting also shows involvement it was stated in one of the interviews. Furthermore it was stated within three interviews that within FresQ the growers want more than just delivering a good product, they are more involved in the marketing and distribution of the product. Which was also the reason that FresQ started.

### **Support and space for ideas**

All the interviewees stated that within FresQ there is more space provided by the cooperative board for the growers to come up with ideas. An example is a grower of FresQ van Kleef who made his own contract with the category manager of Metro Germany to sell his products to, without getting problems with the cooperatives. On the other hand it was stated by one interviewee that because of the lean and mean organization of FresQ the support of employees is lower.

### **Conflict and debate**

Within all the interviews it was stated that within all the cooperatives there are conflicts. Within two interviews it was stated that there are less conflicts within FresQ because they are only a facilitator and have a unified organization therefore they are only working for the interest of the members it was stated. Three interviewees stated that the fact that none of the conflict within FresQ came into the media is an indication that the problems that do exist can be solved. While at competitors conflicts are often in the newspapers.

From both the Greenery and ZON it was stated that the board did not listen to the recent conflicts within the cooperative (Prominent at Greenery and Pamosa at ZON), the Greenery was even called arrogant towards members, objections are not heard.

### **Freedom**

Every interviewee stated that within FresQ the grower group and the individual growers have a lot more freedom to act as they think that is best for themselves and the cooperative. In two interviews it was stated that within FresQ growers have the feeling that they are in the driving seat. An example of this freedom is the independent position of the grower Looijen that does the marketing of his product himself but still he can make use of facilities of FresQ such as packaging and food quality control. This example of Looijen can also be seen as an initiative taken by growers. Other initiatives by growers that were mentioned were packaging stations and a new information system for growers.

### Other measures for innovation

During the desk research it was noticed that it was very difficult to find actual figures on innovation for the specific cooperatives, conclusions and figures are often generalized for the whole sector. Furthermore it is strange that big differences between different researches can be seen. A research of the LEI stated that the Glasshouse sector is very innovative and progressive (Bunte, et al., 2011) while another rapport 'floreren met Rabobank' from the Rabobank states that compared to other sectors the innovation and flexibility was low (Rabobank, 2012).

The figures about return on investment of the individual cooperative members are not available, and since the members have to do the investment not a lot can be said about return on investment. But as stated in the first section of this paragraph the economic revenues of the process and product innovation to reduce costs, where the focus has been on the last decade, are low. Which is an indication of low return on investment. During two interviews it was stated that a lot of growers are in financial trouble despite of their innovation efforts. This because no profit can be retrieved from product innovation, and a lot of GMO money went to the wrong proposes according to two interviews.

On the number of new product launches no figures are found. But another possible indication of innovation can be the amount of innovation prizes the cooperatives won. The price agrarian entrepreneur of the year is three times won by a grower of FresQ because of their high level of innovation. In 1998 Cor and Dirk van der Kaaij won the price, while in 2007 Cees and Leo van der Lans won and in 2008 Frank van Kleef won.

### Sustainable competitive advantage and innovation

In this section the results on Sustainable competitive advantage related to innovation are presented. Even though there was not actively asked in every interview for these factors, since the sustainable competitive advantage assessment is a tool for the analyses and not for data collection, there were some statements during the interviews on this factors. These results are presented in Table 5.7.

**Table 5.7:** Results on sustainable competitive advantage in relations to innovation

Factor	Results
<b>Rarity</b>	Although they are very rare FresQ is the cooperative where most innovation towards the market can be seen (2)
<b>Imitability</b>	
- <i>Unique firm history</i>	Growers that started up FresQ were the most innovative growers. In this way a unique climate was created in which all innovative growers felt home and were able to set up the innovation climate as they desired (2)
- <i>Causal ambiguity</i>	
- <i>Social complexity</i> .	How this innovation climate has arisen with the freedom the growers receive from the board is the result of a very complex grown social relationship (2)
<b>Substitutability</b>	
<b>Mobility</b>	It would be very hard for a competitor to acquire the innovation climate of FresQ, because these growers feel connected with FresQ and growers have the same innovation goals at FresQ (2) In the interviews switching costs because of GMO and the related contract with the cooperatives are mentioned (3)

### 5.2.3 Results entrepreneurship

In this paragraph the results on entrepreneurship will be presented. Entrepreneurship is assessed on four characteristics: need for achievement, need for autonomy, risk taking ability and creativity. The results are based on the expert interviews.

#### Characteristics of the entrepreneur

##### **Need for achievement**

During two of the interviews it was stated that already large growers they wanted to buy new area if growers of FresQ that saw that other growers were expanding their businesses they were trying to do this as well. As examples the Wieringermeer and Brabant were mentioned where huge new areas of greenhouses were build or are going to be build. The big players of FresQ want to grow even though they do not needed it was stated, this is an indication that FresQ growers strive to be the best.

Besides this in three interviews it was mentioned that FresQ consists of huge entrepreneurs with huge companies that want to show what they have accomplished. In two of these interviews it was also stated that growers of FresQ disseminate this message very well. This was definitely different within FresQ than within other cooperatives they stated. In the interview with someone from ZON was mentioned that ZON had maybe too much the mentality of the south which is known for its reticence and modesty.

During one of the interviews the interviews with a former stakeholder of FresQ it was mentioned that within FresQ there are less growers that would chose to sell their company when they got a nice offer to sell it. During an interview within ZON it was mentioned that within ZON it was expected that

a lot of growers would chose to leave the cooperative when they got a nice offer. This is an indication about the willingness of significant accomplishment as well.

### **Need for autonomy**

The need for autonomy of the FresQ growers can be seen when looking at the step from FresQ growers to start a complete new cooperative, they wanted to decide themselves. They did this because they did not have the feeling of being in control at The Greenery it was stated in 3 interviews, which indicates that there was a fear of external control. Furthermore during all interview it was stated that entrepreneurs from FresQ were more aware and busy with the actual distribution of the product then at other cooperatives, they wanted to control this themselves. Growers of FresQ did not want to become dependent on traders etc. During two of the interviews it was stated that there are two types of growers, the ones that want to produce a nice product and that is it and the ones that want total control of distribution and marketing etc. The last type can be seen more within FresQ according to the experts. Finally it was stated in three out of five interviews that within FresQ the growers are more on their own feet, they decide and that is the reason that many growers over the years chose for FresQ, recently Greenery growers made the step towards FresQ for this reason. It was stated several times that within ZON but especially The Greenery the growers had to do what the cooperative wanted.

### **Risk taking ability**

During every interview it was stated that the risk taking ability of the members of FresQ was higher than within the two other cooperatives. Three out of five interviewees stated that the enormous projects in which FresQ members are concerned of more than 10 hectares and one of even 100 hectares illustrated the risk taking ability of FresQ. Within two interviews it was said that the actual stepping out of the greenery and beginning with a complete new cooperative shows that FresQ members are willing to take risk, they chose challenge instead of safety. Furthermore it indicates that they were frustrated in their old situation which was more risk averse. One of the interviews stated that FresQ always searches for the competition, even though this is a risk they need this to keep on performing.

### **Creativity**

Based on the interviews it was hard to say something about the creativity. Although some examples of creative ideas came up during the interviews, such as direct contracts with retail. It was mentioned once that FresQ members travel a lot to see how in different countries to deal with certain problems and come up with creative ideas. Furthermore it was mentioned in three out of five interviews that the innovations of the entrepreneur at FresQ are cost price driven product innovations that are not very unusual.

### **Sustainable competitive advantage and entrepreneurship**

In this section the results on Sustainable competitive advantage related to entrepreneurship are presented. Even though there was not actively asked in every interview for these factors, since the sustainable competitive advantage assessment is a tool for the analyses and not for data collection, there were some statements during the interviews on this factors. These results are presented in Table 5.8.

**Table 5.8:** Results on sustainable competitive advantage in relation to entrepreneurship

Factor	Results
<b>Rarity</b>	None of the other cooperatives had the same amount of large entrepreneurs (3) The clustering of so many entrepreneurs cannot be seen

	anywhere else (5)
<b>Imitability</b>	
- <i>Unique firm history</i>	Because of the common history the entrepreneurs found each other and together built FresQ. (3) Other growers with the same entrepreneurial mind joined later because they could identify and a unique clustering took place (2)
- <i>Causal ambiguity</i>	FresQ entrepreneurs have better understanding of what it means to collaborate in a cooperative
- <i>Social complexity</i> .	The clustering of the largest entrepreneurs provided a social complex situation with entrepreneurs that now each other quit well (3)
<b>Substitutability</b>	It would be very hard to replace the entrepreneurship for something else that would result in the same value. (3)
<b>Mobility</b>	The entrepreneurs felt good within FresQ and it would be very hard to induce them to switch to another cooperative. (2)

#### 5.2.4 Results social capital

In this paragraph the results on social capital are presented. The results are divided in three parts namely results on trust, reciprocity and on networks. The results are based on the expert interviews and the desk research that are executed.

##### Trust

As presented in literature trust exists of several types, the results of all these types of trust that are introduced in literature will be presented.

##### **Characteristic based trust**

The trust between members of FresQ is high is stated in four interviews. It was stated two times that this startup of FresQ was possible because growers trusted that each other since they believed they the correct characteristics and beliefs for it. Characteristics as extravert, risk taking and need for control were mentioned in the interview. These initial growers are still in the organization. In two interviews it was mentioned that the members of FresQ believe that the employees of FresQ have the right characteristics to do the job.

##### **Process based trust**

All the interviewees mentioned that because FresQ is a startup company from stretch their trust is increased because they have designed the cooperative according to their own beliefs, there was consensus from the beginning. The members that started up FresQ experience the whole risky process together which increased the trust in each other it was mentioned in two interviews. It was mentioned in three interviews that the competitive cooperatives had to start with financial weak members and different types of growers because of the mergers and takeovers. Also the growers that entered the cooperative later entered because they had more trust in the way FresQ was managed then it was before at the competitors. According to the interviews the trust was high because they belief in the high amount of freedom and the role of facilitator of the cooperative.

##### **Institutional based trust**

Within all the interviews it was agreed that the institutional based trust was higher at FresQ. Two main reasons were provided. First of all it was stated three times that the board and employees of FresQ are accepted and trusted broad-based. Another indication was mentioned twice namely that within FresQ no conflicts on strategy have reached the media while for competitors this was different. FresQ has decided that it is a facilitating company and all members feel good with this. The Greenery with prominent and paprika.nl and ZON with Pamosa had some big conflicts. Furthermore

it was mentioned three times that within FresQ the members have the highest trust that their products are sold for the best price at the lowest cost because of the institutional rules. Rules that were mentioned were: no packages with other products were made because FresQ does not have a trading function as competitors have and the guaranteed payment within 14 days while at the Greenery this can be 3 months.

### **Trust in ability**

The results on trust in ability can be divided into three parts. First there is the trust in ability of the board that growers have, within FresQ it was stated three times that the board members have the good expertise and capacities, while a grower of ZON stated that at ZON the board members are just growers with a bit of extra time. Three interviewees stated that the trust in the board at the Greenery is very low, because they feel that these board members only have managing capacities and do not understand how a cooperative works. Furthermore the trust in the ability of the cooperative and its employees is high according to all the interviewees. One interviewee stated that within FresQ all growers know all employees and feel that they try to get the best results for the growers. Finally there is trust in the ability of the growers. The freedom the growers receive also is an example of the high amount of trust the board has in its growers it was stated. Furthermore it was stated within three interviews that within the grower groups the trust between growers in their ability is high since they are willing to exchange information.

### **Trust in integrity**

Within three interviews it was stated that compared to its competitors the trust that the cooperative really wants to stand up for the interests of its members at FresQ is higher. They also stated that within the Greenery it was the lowest because they also think about their trading function.

### **Benevolence**

All the interviews agreed that members of FresQ are not only at FresQ for financial reasons but also because of the freedom they receive and the feeling that they are of a cooperative with a good reputation. Furthermore it was mentioned twice that growers receive a platform where they can show their capabilities. This is supported by the transition of growers in the past it was stated twice. These growers have no idea whether they receive a better price within FresQ but they want freedom and this feeling drove them to FresQ.

### Reciprocity

### **Stableness**

When looking at the figures about the amount of members of FresQ presented in section 5.1 it can be seen that the number of members has been quite stable over the years. In the interviews it was mentioned that within FresQ the lowest number of mutations took place over the years as a result of conflicts. Within the board the amount of mutations has also been low, and none of the board members has left FresQ because of a conflict. Furthermore it was mentioned three times that FresQ is the cooperative with the lowest amount of conflicts that reached the press.

### **Durable**

The predecessor of FresQ the rainbow growers group U.A founded in the year 1997, and most of the founders are still involved in the organization. This is a relatively short period of time. In a lot of interviews it was mentioned that in the upcoming years the cooperative has to show that FresQ has to prove that they are more than just an angry young man and new fresh name in town.

## Reputation

All the interviewees agreed that the reputation of FresQ is better than the reputation of competitors. It was also mentioned in three interviews that one of their strengths was propagating this story. They are always very visible in the press and on national and international fairs it was mentioned.

## Networks

### Availability

First of all there is the internal network with different grower groups with according to the interviews the most innovative and progressive growers in the sector. Furthermore FresQ has a very big national and international network. They are travelling all over the world it was mentioned in one interview to meet interesting new people. Furthermore one interviewee stated that because of their well-known name there are a lot of parties in the market that are coming to FresQ instead of the other way around. Two interviewees stated that the relationships with trading is bad for all three the cooperatives but for FresQ this is the least bad.

### Strength of network

In paragraph 5.2.1 this is already discussed

## Sustainable competitive advantage and social capital

In this section the results on Sustainable competitive advantage related to social are presented. Even though there was not actively asked in every interview for these factors, since the sustainable competitive advantage assessment is a tool for the analyses and not for data collection, there were some statements during the interviews on this factors. These results are presented in Table 5.9.

**Table 5.9:** Results on sustainable competitive advantage in relations to social capital

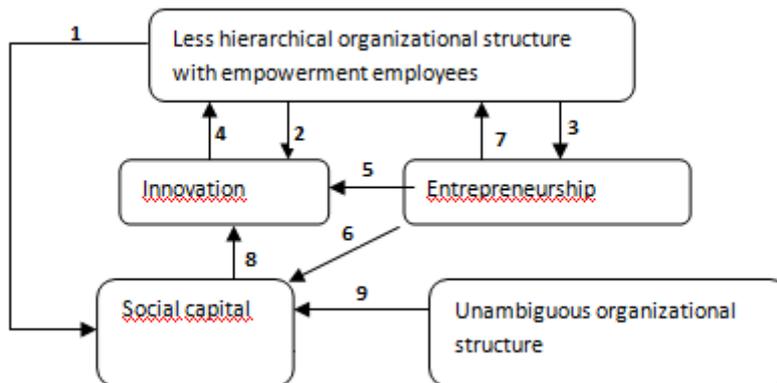
Factor	Results
<b>Rarity</b>	Social capital as within FresQ cannot be seen within ZON and Greenery (3) The amount of trust and as a result of quietness about conflicts is something that none of the other cooperatives has. The strong network of FresQ, especially internal, is rare (3)
<b>Imitability</b>	-
- <i>Unique firm history</i>	-
- <i>Causal ambiguity</i>	It is hard to tell and understand how the trust and the relations actually are grown (2)
- <i>Social complexity.</i>	the relationships within FresQ are pretty complex with all kind of groups within the cooperative, a lot of small networks of people that know each other pretty good (2).
<b>Substitutability</b>	-
<b>Mobility</b>	social capital is grown over the years and can only be acquired by taking over the complete cooperative and even in that case the feeling and trust of the growers will not be the same (2)

### 5.3 Results on the relationship between the factors

In this paragraph first an overview of the mentioned relations between the factors will be provided, and secondly the results on which factor had the biggest impact on sustainable competitive advantage are presented.

#### Relationships between the factors

During the interviews statements about the relationships between the factors were provided these relationships are presented graphically in Figure 5.5 and explained this section.



**Figure 5.5: Relationships between the factors**

- 1) In all the interviewees it was stated that organizational structure strengthened social capital, because of low hierarchy and decentralized organization trust was build.
- 2) It was stated 4 times that the low hierarchical, decentralized organizational structure with empowerment of the employees stimulated the innovation climate, since more freedom and support is provided for the growers.
- 3) It was mentioned in three of the interviews that the organizational structure of FresQ stimulated the entrepreneurship of the cooperative, because the entrepreneurs got an environment in which they could distinguish themselves because of the freedom they receive in the nonhierarchical environment.
- 4) Some examples were given as an indication for relationship from innovation towards organizational structure. The contribution based on amount of hectares, and the voting rights based on the amount of contribution were mentioned examples.
- 5) Two of the interviewees mentioned the relationship between entrepreneurship and innovation, because a lot of entrepreneurial growers are within FresQ the innovation stimulated.
- 6) It was mentioned three times that entrepreneurship strengthened social capital because FresQ existed of the same type of entrepreneurial growers with the same beliefs that trusted each other.
- 7) It was stated twice that entrepreneurship influenced organizational structure since these entrepreneurs had a lot of influence on the strategy and structure of FresQ, they wanted to be involved.

8) In two interviews it was mentioned that the high amount of social capital of FresQ led to a better innovation climate since growers within the groups that are created trust each other and work together on innovations.

9) Organizational structure influenced social capital in another way, because of the unambiguous organization which increased trust of the growers because they felt the cooperative did everything to defend their interest all the interviewees mentioned. This was strengthened because this strategy led to a very clear way of the future perspective the cooperative had in mind it was mentioned twice.

Another relation that was mentioned twice was that because of the high amount of trust this attracted entrepreneurs to join FresQ, but other interviewees stated that this was more the results of relationship 3 that the organizational structure with the freedom is attracting new entrepreneurs.

### Relative importance of the factors

On the question which factors had the most impact on the sustainable competitive advantage of FresQ all the interviewees answered that it was a combination of factors, although social capital and entrepreneurship were both mentioned once as the most important factor. Four of the five interviewees wanted the question what they thought that were the most important factors. Social Capital was mentioned three times as being one of the three most important factors, and one time explicitly as the most important factor. Entrepreneurship was also mentioned 3 times. Parts of the organizational structure were also mentioned, the unambiguousness was mentioned, as well as the right blend of freedom and binding in which the employees are at the helm which was mentioned three times and finally the multichannel of FresQ with more than one selling table. Innovation was not mentioned once as one of the most important factors.

**Table 5.8:** Number of times factors where mentioned as important factors for sustainable competitive advantage

	Mentioned as the most important factor	Mentioned as one of the most important factors
Innovation	-	-
Organizational structure	-	5 times
Social capital	One time	3 times
Entrepreneurship	One time	3 times

One of the question which other factors influenced the sustainable competitive advantage of FresQ, it was answered twice that they have taken advantage of the bad performance of the competitors Also a board that supported them was mentioned but this can be caught under organizational structure. One interviewee also mentioned the three A's: adaptability, agility and alignment as the most important factors.

## 6. Analyzing the results

In this chapter the results presented in chapter 5 will be analyzed. With this chapter the last sub question will be answered:

*How do the factors innovation, social capital, organizational structure entrepreneurship and a combination of these factors affect sustainable competitive advantage of the fresh produce cooperative FresQ?*

### 6.1 Organizational structure

In this paragraph the results on the organizational structure will be analyzed. First the strength of the organizational structure within FresQ will be analyzed, and then the results of the influence of organizational structure on sustainable competitive advantage will be analyzed.

#### Strength

When analyzing the results of the organizational structure some clear differences between the three cooperatives come to the front. The biggest difference is within the strategy of the cooperatives. While FresQ has chosen to be a facilitator focusing on marketing/distribution, the competitors also have a trading function. Furthermore FresQ has chosen to be as lean and mean as possible they will only do what the members cannot do by themselves. This seems to be a good structure, which suits the situation well, while at competitors the strategy of the board and the wishes of the members are not in line. The roles of the members and the formal responsibilities of the different layers are not that different. But informal the influence of the growers is bigger than at competitors. Connected to this FresQ seems to deal better with the classical dilemmas. They give the power to the growers, are less hierarchical and more decentralized, which suits the growers well. Furthermore FresQ is a well-known player in the market, which is growing in its size, and is built around some very big growers with a good reputation.

Summarizing, the organizational structure of FresQ is one of its key competences since it is well tailored to the situation. Actually the strength of the organizational structure is not the formal structure but how it facilitates the cooperative and its growers to excel on their other key competences. The strength is that the organizational structure is well aligned towards the situation at FresQ.

#### Related to SCA

##### Rarity

The structure as within FresQ is rare, since none of the competitors has the same strategy of being only a facilitator on things the growers cannot do themselves. This strategy affected the structure of FresQ, with as a result a unique organizational structure. Focusing only on the marketing and distribution function and not on trading is unique in the sector as well. And the low hierarchy and decentral decision making cannot be seen at competitors. And finally the structure with the 6 grower groups is very different which all have their own selling tables.

*Concluding remark;* A good organizational structure as a resource provides value as can be seen in literature, since there is organizational structure exists within FresQ we assume it delivers value Furthermore it is rare for several reasons. Which means that for FresQ the organizational structure leads to a competitive advantage.

##### Imitability

*Unique firm history*

The fact that FresQ could start from scratch made it possible to come up with this organizational structure. They had no problems with other growers that were involved in the merger that had other ideas of how the cooperative needed to be structured.

#### *Causal ambiguity*

When analyzing the results it can be concluded that competitors do not understand how the organizational structure leads to the success of FresQ. It seems that competitors do not understand how the lean and mean structure of FresQ that fits well with the philosophy of the growers can lead to the success of a cooperative. The competitors are not only facilitating but are also in trade and this seems to conflict with the beliefs of the members.

When analyzing how the competitors deal with their own organizational dilemmas in comparison with FresQ it seems that they do not understand how working less hierarchical and more decentral with empowerment of the growers can lead to sustainable competitive advantage.

#### *Social complexity*

The organizational structure of FresQ with the six different groups with a bundling of growers and entrepreneurs in all the groups is relatively simple. But it is hard to understand how the informal structures contribute to the success of FresQ.

#### **Substitutability**

It will be almost impossible to implement the organizational structure of FresQ in the same competitors. This because at competitors the relationships between members mutually and between members and board are not comparable. Members of FresQ are different growers with a different mindset. The lean and mean structure with only a facilitating function fits FresQ well in case of the competitors it is not possible to implement this the same way.

#### **Mobility**

An organizational structure is an asset of an organization that is immobile. The individual members can switch relatively easy, but since the organizational structure is the collection of members with the same values and beliefs with a structure that is suitable for this group of members the organizational structure can be called immobile. For a competitor it is not possible to take over this complete structure with the beliefs and feelings the members have, and implement this into their own cooperative.

**Concluding remark** Because the organizational structure of FresQ is inimitable, hard to substitute and immobile it contributed to a sustainable competitive advantage for FresQ.

## 6.2 Innovation

In this paragraph the results on innovation will be analyzed. First the strength of innovation will be analyzed within FresQ, and then the influence of innovation on sustainable competitive advantage will be analyzed

#### **Strength**

Based on the results innovation within FresQ can be evaluated on its strength. Firstly it can be said that innovation at the three competitors FresQ, The Greenery and ZON is relatively similar. Within these three cooperatives it can be seen that the focus of innovation is mostly on lowering costs and not so much on their products. FresQ seems to have the most innovative climate. Especially the freedom and support and space for new ideas at FresQ were seen as important indicators of this climate by the experts. But it is hard to see if this really leads to more innovation since no hard figures on innovation of the different cooperatives can be found, only generalized figures exist. Furthermore there are some stifling factors of innovation that can be seen. Product innovation is

more difficult because of the collectivity, when a grower has a new product but it is sold together with the products of its competitors the innovation is not made into value.

So taken all this information about innovation together, innovation within FresQ cannot be evaluated as strong. There is a more innovative climate but the focus is, comparable with the situation at the competitors, on process innovations and hardly any product innovations on a large scale can be seen. But on process innovation focused on cost reduction it can be concluded that FresQ performs better.

### Related to SCA

Here it will be analyzed how innovation is evaluated on the (sustainable) competitive advantage criteria.

### Rarity

The product and process innovation in itself is not rare at FresQ. Other cooperatives come up with product innovations like specialties and also process innovations like packaging machines or thermal couplings can be seen at competitors. The difference is within the innovation climate. There is more support and freedom for members to come up with innovations. So the rarity is in the innovation climate and not that much in the innovations itself, although there seem to be more process innovation at FresQ.

*Concluding remark:* Whether innovation delivers value to the cooperative is not particularly asked in the interviews because in the literature study it was shown that innovation leads to value so it is assumed that innovation delivers value for FresQ. Innovation as it can be seen at FresQ is rare within the Dutch fresh produce horticulture sector. But this only holds for the process innovation and the innovation climate. So this means that process innovation can be seen as a competitive advantage of FresQ.

### Imitability

#### *Unique firm history*

The unique firm history contributed to the unique innovation climate within FresQ. Since in the past the most innovative growers formed FresQ in such a way that innovation was supported. In this way a unique climate was created in which all innovative growers felt home and supported because they could shape the cooperative from scratch so more room for innovation was created.

#### *Causal ambiguity*

All the cooperatives understand the link between innovation and sustainable competitive advantage. But from the expert interviews it became clear that FresQ was better able to understand how innovation needs to be stimulated in the current market. But there was also criticism since expert believed that also FresQ focused too much on process innovation to reduce costs, a strategy of which the end of possibilities is insight. On the other hand the experts also mentioned that FresQ members were better aware of this than members at competitors.

#### *Social complexity*

FresQ has a complex innovation climate because of the relationship between the board and the growers that is built over the years. This has to do with the freedom and the trust the growers receive from the board, this is the result of a long term developed complex social relationship that is the result of years of working together and of people with the same beliefs that clustered together.

### Substitutability

It is not possible to imitate the innovation climate exactly since it is not possible to do this with the other types of growers that can be seen at the competitors so substitutability by copying it towards their own situation is not possible for competitors. The second form of substitutability arises when strategic substitutes exist, this can be seen to a certain extent. The results of the innovation were lower costs and better quality of the product. This could for example also be the result of better

organizational structure or better relationships with the seed producers, so in this way substitutability is possible.

### **Mobility**

The unique part of innovation at FresQ is the climate and the growers that are innovative. It is hardly impossible for a competitor to take this over as a whole. Especially because these growers are in FresQ because in FresQ they could create a climate in which they feel comfortable and supported. In the past they were already members of the competitors but they did not had the right feeling then, so it is not to be expected that these members will support a step towards their old situation. Furthermore switching costs can be seen because growers have contracts to cooperatives as a result of CMO.

*Concluding remark:* So when analyzing at the imitability substitutability and mobility of innovation at FresQ it can be said that innovation as a whole does not seem to be an explanatory convincing factor of FresQ's sustainable competitive advantage. For the innovation climate and process innovation it can be concluded that it is hard to imitate, difficult to substitute and immobile so here it has led to a sustainable competitive advantage.

## **6.3 Entrepreneurship**

In this paragraph the results on entrepreneurship will be analyzed. First the strength of entrepreneurship within FresQ will be analyzed, and then it will be analyzed to what extend entrepreneurship leads to a sustainable competitive advantage.

### **Strength**

When analyzing the results about the characteristics of the entrepreneur it can be said that FresQ members are more entrepreneurial than the members at the competitive cooperatives. Their continuous willingness to grow, spreading out their message of success are their drive to keep the business running in economical difficult times shows their need for achievement. Also their need for autonomy is very strong, FresQ is actually a result of growers that wanted to have influence on marketing and therefore FresQ is organized in such a way that autonomy of the growers is enlarged. This starting up of their own cooperative also shows their risk taking ability they chose change over security. Nowadays they still participate in large risk taking projects something that members of competitors do less. Although some creative ideas can be seen it is hard to say something about the creativity of the members of the different cooperatives, although it can be seen in the interviews that there was some criticism on the fact that most ideas are in the same direction. Most ideas were on cost reduction and not on market orientation.

So it can be said that entrepreneurship of FresQ is strong enough to be a possible driver of a sustainable competitive advantage. In the following section it is going to be analyzed whether and to what extend entrepreneurship leads to a sustainable competitive advantage

### **Influence of entrepreneurship on SCA**

#### **Rarity**

When analyzing the interviews and desk research it can be said that the entrepreneurship of FresQ is quite rare. The same amount of entrepreneurs with a big name and company cannot be seen at any of the competitors. Furthermore a clustering of all these entrepreneurs which found each other because of their same mindset is rare, and also the freedom they receive from FresQ to exploit their entrepreneurial activities is rare.

*Concluding remark;* Since the relationship between value and entrepreneurship is already explained in the literature study we assume that if present entrepreneurial growers deliver value to a cooperative. Entrepreneurship as it can be seen at FresQ is rare within the Dutch fresh produce horticulture sector. So this means that entrepreneurship can be seen as a competitive advantage of FresQ.

### **Imitability**

#### *Unique firm history*

When analyzing the results it can be said that the clustering of the large number of entrepreneurial members as it can be seen within FresQ is a result of a unique firm history. This because growers with the same entrepreneurial mindset felt not supported and therefore founded FresQ. A clustering of entrepreneurs arose but also an environment where entrepreneurship is stimulated. This attracted other entrepreneurial growers to join FresQ which made the clustering even bigger.

#### *Causal ambiguity*

When looking at the results it can be concluded that within FresQ everyone had a better understanding of what it means to be a cooperative. Which means that within FresQ members and board better understands what to do together and what to do alone, for competitors it seems hard to understand how this actually work. Furthermore it can be said that within FresQ there is a better understanding about what entrepreneurs can deliver to a cooperative, freedom is higher. At the competitors less room was provided entrepreneurs to contribute to the cooperative, which can be seen as an indicator that at the competitors there is less understanding about what entrepreneurs can contribute to the success of the cooperative.

#### *Social complexity*

Because of the clustering that has taken place a complex social relationship has grown. The entrepreneurs have been undertaken the complete process of starting up their own cooperative and building it bigger and bigger together. In this way a lot of knowledge came together, and strong relationships did arise.

### **Substitutability**

It is hard to replace the value that entrepreneurship delivers to FresQ. The entrepreneurs are the driving forces within FresQ and their knowledge and reputation are impossible to create with other resources.

### **Mobility**

The entrepreneurial growers of FresQ started the cooperative themselves and structured it a way that suits their beliefs. This makes it for competitors hardly impossible to obtain these entrepreneurs. The fact that entrepreneurs already have a history as member at the competitors in which they did not feel supported, makes it even less expectable that the competitors can obtain these growers. Furthermore it is a network of entrepreneurs that has to be taken over and not an individual.

**Concluding remark:** Entrepreneurship seems to be a factor that has led to a sustainable competitive advantage of FresQ since it is hard to imitate, difficult to substitute and immobile.

## **6.4 Social Capital**

In this paragraph the results on social capital will be analyzed. First the strength of social capital will be analyzed within FresQ, and then the influence of innovation on sustainable competitive advantage will be analyzed

### **Strength**

FresQ can be evaluated on its strength in comparison to competitors. First of all the amount of trust in general within FresQ was evaluated as higher. Especially the trust in the ability and integrity of the cooperative. This was a result of the low costs members had for the provided services and the less hierarchical way of managing the cooperative. Also the mutual trust in each other's capabilities and the belief that all the members have correct incentives seems to be higher at FresQ. Furthermore FresQ has been a stable cooperative which led to a good reputation. So a direct penalty could be felt by members when leaving the network since costs would be higher but also indirect because of the reputation loss of leaving FresQ. This only holds for members of the internal network of FresQ. For example retail in the network does not feel any negative consequences when no reciprocity occurs. Furthermore the internal network seems to be quite strong, because it is relatively big and focused around the most entrepreneurial players of the sector. The external network of FresQ is not that different that of the competitors, although they are a well-known player in the market which attracts external parties to work with them.

Summarizing the results of social capital it can be said that social capital at FresQ is high and it is one of the key competences of the organization. Especially the internal trust and stableness around the key players leads to the strong social capital.

### Related to SCA

In this part of the results chapter there will be presented how social capital is evaluated on the criteria of sustainable competitive advantage.

### Rarity

According to the expert opinions there is an amount of trust and as a result quietness at FresQ that cannot be seen at the competitive cooperatives. With FresQ a stable cooperative has grown. With a strong network, especially internal, with a bundling of knowledge and growers with the same beliefs that is rare. The reputation of FresQ which is also a result of the social capital can also be evaluated as rare.

*Concluding remark:* Social capital leads to value as can be seen in literature, since social capital exists within FresQ we assume it delivers value. The amount of social capital that FresQ possesses cannot be seen at the competitors so it is very rare. This means that social capital can be seen as a competitive advantage of FresQ.

### Imitability

#### *Unique firm history*

The social capital of FresQ can be seen as a result of the unique firm history. Growers with the same goals and beliefs established FresQ. Therefore a big amount of trust is grown since all the growers and board members have the same philosophy and history which strengthens the feeling of togetherness. Furthermore the reputation which is a result of the extravagant growers that claim their success is a result of the successful history of the firm.

#### *Causal ambiguity*

It is hard to understand how the trust and the social relations actually have grown over the years. This was the result of personal contact between people with the same values and beliefs which only the type of growers of FresQ tends to have. Competitors cannot lay there finger on this because they have not closely seen this process, and also because they possess a different mindset.

#### *Social complexity*

The informal relationships within FresQ are pretty complex with all kind of groups within the cooperative, there are a lot of small networks of people that know each other pretty good. The personal and formal relationships are closely related which increases complexity.

### Substitutability

According to the experts no real substitutability possibilities for social capital could be seen. The results of trust reputation etc. are hard to substitute since it delivers other values to the cooperative than lower costs or better prices. Things as reputation and trust cannot be achieved by substitutes.

### Mobility

Social capital is an asset of a cooperative that is immobile on itself. Social capital is grown over the years and can only be acquired by taking over the complete cooperative with all its growers and the whole network. And even then it is the questionable whether the same amount of social capital can be retained since the same feeling as what they had within FresQ cannot be created in a different environment. Social capital is mentioned in literature as a factor that is hardly not mobile and for FresQ this seems to be the case as well.

*Concluding remark:* Social capital as it can be seen at FresQ is not imitable, hard to substitute and immobile so it can be said that social capital contributes to a sustainable competitive advantage for FresQ.

## 6.5 The relationships between the factors

### Relationships between the factors

Within the results chapter the various relationships between the factors that were mentioned during the interviews were presented but they are not all of the same importance. In Figure 6.1 the relationships 1, 3 and 9 received a bigger arrow because the importance of this relationship is higher in the case of FresQ. Social capital in two ways and entrepreneurship can really become important factors for creating sustainable competitive advantage because they are strengthened by the way the cooperative is structured. The low amount of hierarchy and empowerment of the employees really leads to a higher amount of trust within the cooperative and a better reputation and thus social capital. Furthermore it gives entrepreneurs the possibility to excel, to get the freedom and support they needed. And because of the clear unambiguous structure which is very clearly communicated towards the growers this social capital is strengthened even more. This is supported by the fact that these 3 relations are mentioned in all of the interviews.

It has to be said although that these relationship are only indications of possible important relationship within Fresh produce cooperatives, not all of these relationships can be supported by already existing literature. But since this is an explorative research this is not a problem, and these indications can be investigated further.

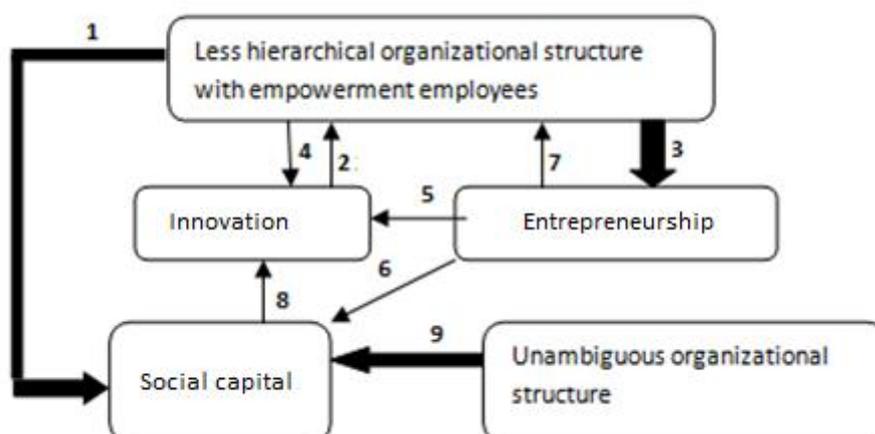


Figure 6.1: Graphical representation of the relationships between the factors

**Relative importance of the factors**

When analyzing the results it can be said that not one most important factor can be mentioned, it is a combination of the factors. But still two factors seem to be of the highest influence on sustainable competitive advantage namely social capital and entrepreneurship these were also mentioned the most by the experts when asking to the most important factors. But these two factors can only be of this high importance because of the supporting and suitable organizational structure. This also explains why the organizational structure is mentioned that much. It is not that this organizational structure is crucial for a fresh produce cooperative but in this situation it suited perfectly.

## 7. Conclusion

In this chapter an answer will be provided to the main research question of the study;

*Which critical success factors contribute to the sustainable competitive advantage of the fresh produce cooperative FresQ?*

From literature a list of possible factors that can contribute to the sustainable competitive advantage for a fresh produce cooperative was provided. These factors are contracts and licenses, personal and organizational networks, the know-how of employees, professional advisers, suppliers and distributors, the reputation of products and company, the culture of the organization, tacit knowledge, total corporate knowledge, continuous improvement, and core competences.

Four other factors that were considered in advance as possible drivers of sustainable competitive advantage were investigated on their strength namely innovation, social capital, organizational structure and entrepreneurship. The assessment of its strength is the first step in determining whether a factor leads to a sustainable competitive advantage. The result was that entrepreneurship and social capital were indicated as very strong within FresQ, and organizational structure was indicated as very strong as well since it was facilitating the entrepreneurship and social capital very well. From assessing innovation it can be concluded that process innovation is developed quiet strongly while product innovation was not stronger at FresQ compared to the competitors. But in the end all the four factors could be seen as core competences of the cooperative and in this way they were possible drivers of the sustainable competitive advantage.

The following step was to see whether these factors were a competitive advantage of the cooperative since this is a pre-assumption for a possible sustainable competitive advantage. Innovation delivered value to the cooperative but it was hard to measure how much in comparison to competitors since data was not available. Furthermore only the innovation climate and the process innovations that led to a lean and mean organization were rare, so innovation can only partly be seen as a competitive advantage of FresQ. Social capital delivered more value to FresQ than for competitors since it was more rare. This means that social capita can be seen as a competitive advantage of FresQ. For the organizational structure it holds that it leads to value for FresQ expressed in an organization that is leaner and meaner and higher member satisfaction. Furthermore the structure as seen within FresQ is rare so it can be concluded that the organizational structure is a competitive advantage of FresQ. And finally FresQ growers are very entrepreneurial which delivers value to the cooperative expressed in reputation and growth, and furthermore the entrepreneurial mindset of the growers as could be seen at FresQ was evaluated as rare in comparison to competitors. As a result entrepreneurship can be seen as a possible competitive advantage as well.

When it is decided that a factor leads to a competitive advantage the next step of the flow chart can be taken, in which it is decided whether a factor contributes to the sustainable competitive advantage. Innovation as a whole is relatively good imitable, substitutes exist and it is relatively mobile. So it is not a convincing factor. For the innovation climate and process innovation it is hard to imitate, difficult to substitute and immobile so only the innovation climate can be seen as a factor for sustainable competitive advantage. Social capital as it can be seen at FresQ is not imitable, hard to substitute and immobile so it can be said that social capital led to a sustainable competitive advantage for FresQ. Because the organizational structure of FresQ is inimitable, hard to substitute and immobile it has led to a sustainable competitive advantage for FresQ. Entrepreneurship seems to be a factor that has led to a sustainable competitive advantage of FresQ since it is hard to imitate, difficult to substitute and immobile.

Now it is clear that all the factors for a certain extend lead to the sustainable competitive advantage of FresQ, the last step is to look at how these factors are related and what is their relative importance in the contribution to the sustainable competitive advantage of FresQ. First of all it can be concluded that no single factor is the most important factor for sustainable competitive advantage of FresQ it is a combination of the factors. Various relationships between the factors can be seen but the three most important ones are:

- 1) The influence of the organizational structure with low hierarchy, decentralization and empowerment of the employees on entrepreneurship since entrepreneurs are stimulated by the freedom and support they receive
- 2) The influence of the organizational structure with low hierarchy, decentralization and empowerment of the employees on social capital since the level of trust and the reputation of the cooperative is improved
- 3) The influence of the unambiguous organizational structure which holds that FresQ is a 100% sales cooperative on social capital. Trust is grown because of the clarity this provides to growers. The cooperative is working completely as a service provider for the growers and clarity about the strategy is provided.

These relations contribute to the conclusions that can be drawn from relative importance of the factors. The factors entrepreneurship and social capital were both mentioned as the most critical success factors by the experts. Organizational structure was mentioned as well but always in a way that the relationship with social capital and entrepreneurship was mentioned. So it can be concluded that entrepreneurship and social capital seem to have the biggest influence on the sustainable competitive advantage of FresQ but that this is only the case because the organizational structure facilitates these critical success factor well. So the facilitating organizational structure can be seen as a critical success factor as well. In addition, the history is important for these factors since entrepreneurs that wanted room to be a successful entrepreneur could build FresQ from scratch. In this way a stable organization that suits the situation well is established and social capital could be build. This makes it impossible to say that this mix of factors could be generalized as success factors for competitors in the sector. Because here different types of entrepreneurs are involved and competitors cannot shape the organization from scratch, so social capital as it is arisen at FresQ will be impossible to duplicate.

## 8. Discussion

This chapter consists of a critical analysis of the results and recommendations for further research. The critical analysis consists of indicating the consequences related to the constraints applied within this research project.

### General discussion

The research proposal was set up to investigate FresQ with the help of a case study completely devoted to FresQ but because of some setbacks it was not possible to execute a complete case study. In this way some earlier made choices could not be changed in favor of the new situation due to time constraints. One of the major strengths of this research lies in the theoretical study. A lot of different fields of study are combined which provided a broad overview of the possible success factors of a Fresh produce cooperative. So the theoretical background was broad.

### Limitations

The first limitation holds that the investigation of some factors within this research is based on the opinion of experts while normally these factors need to be measured with the help of quantitative measures. This especially holds for the factors entrepreneurship and social capital which are factors that actually need to be measured based on feelings and characteristics of members of the cooperatives. Of course the expert had an indication about how the different cooperatives should be evaluated on these variable. But it is important to realize that the results of this research need to be seen as an explorative results.

Another limitation of the research is that the interviewed people all had a background within a one of the three cooperatives. This may have led to some biased answers. Because of time constraints it was not possible to interview more experts to see whether opinions were widely spread. This limitations is limited because interviewees with a background in all three of the cooperatives were included in our research. Which made it easier as a researcher to analyze the results.

A final limitation can be found in the amount of interviews that are executed and in the way this was done. In practice it appeared that in some cases experts were not able to provide an answer for every variable and there was too little time to explain all the variables. In this research there was chosen for semi- interviewees which in practice was perhaps not the best choice It would have been wise to structure the interviews a bit more since in this way it would be possible to conceive answerers that were easier to compare. Furthermore, with more structured interviews more attention could be provided to the factors that are not measurable by structured questions.

### Further research

This research only concerned the situation of FresQ of the last ten years until the first of January 2012. But in 2012 big group of growers from the Greenery step out and joined FresQ. This is the first time in the history of FresQ that such a big group joined FresQ at once. In the interviews with the experts it was mentioned several times that this will be a big test for FresQ. Especially the influence of the new situation on social capital can be interesting to analyze.

Of course also a case study within FresQ can be executed to see whether the explanatory results of this research hold in practice.

Another possible future research is a research on the how success factors can be created and used to be ready for future opportunities. What can be done to improve sustainability. An interesting implication that is related to this is the influence that firm age has on sustainable competitive advantage. Within several interviews it was mentioned that FresQ probably still has the advantage of a new relatively Young organization that benefited from the mistakes of the competitors but now they are the biggest player in the market for fresh produce vegetables under glass.

Connected to this is the discussion that was heard a lot during the interviews, is the end of the cost reducing strategy nearby, does this mean that this strategy will lose its competitive advantage?. Finally future research about the impact that the pre assumed factors in this research can possibly have on cooperatives in a different situation, is their a broader generalization possible. Are their similarities that can be seen, is there a resource or a mix of resources that can increases the change of a sustainable long term competitive advantage?

## References

- Adler S. and Kazanowski K. A. (1998) Building on strength: How a Health Care Community is increasing its social capital. *Healthcare forum Journal*. Vol 41 (2), pp. 56-59
- Amit, R., and Schoemaker, P. J. H. (1993) Strategic Assets and Organizational Rent," *Strategic Management Journal* Vol. 14, pp. 33-46.
- Barney, J. (1991) Firm Resources and Sustained Competitive Advantage. *Journal of Management*. pp 99-120.
- Bessant, J. and Tidd, J. (2007) *Innovation and Entrepreneurship*. Chichester [etc.] : Wiley
- Bijman, J. (2002) *Essays on Agricultural Co-operatives*. Proefschrift
- Bijman, J. (2003) A Case study on FresQ ,a cooperative of vegetable growers in The Netherlands. Confidential
- Birch, K., and Whittam, G. (2008). The Third Sector and the Regional Development of Social Capital. *Regional Studies*. Vol. 42(3), pp. 437-450.
- Birchall, J. and Simmons, R. (2010). The co-operative reform process in Tanzania and Sri Lanka. *Annals of public & cooperative economics*. Vol.81(3), pp. 467-500
- Birchall, J. (2011) *People-centered businesses: Co-operatives, mutuals and the idea of membership*. London, New York, Palgrave Macmillan
- Borgatti, S.P. and Foster, P.C. (2003) The Network Paradigm in Organizational Research: A Review and Typology. *Journal of Management*. Vol. 29(6), pp. 991-1013
- Borgen, O. S. (2001) Identification as a trust-generating mechanism in cooperatives. *Annals of public ad cooperative economics*. Vol 72(2), pp. 209-228
- Bowles, S. and Gintis, H. (2002) Schooling in capitalist america revisited. *Sociology of Education*. Vol. 75 (1) , pp. 1-18
- Bryman, A. & Bell, E. (2003) *Business research methods*. Oxford University Press.
- Bunte, F., Lans C. van der., Knijff A, van der., Meer R. van der R. and Poot, E.(2011) *Marktbeleid voor groenten en fruit*. LEI-rapport
- Burt, R.S. (1992) *Structural holes: the social structure of competition*. Cambridge: Harvard University Press
- Burt, R.S. (2000) The network structure of social capital. *Research in Organizational Behaviour*, Vol. 22, pp. 345 - 423
- Business Dictionary (2012) Definition customer orientation. Retrieved June 5, 2012, from [www.businessdictionary.com/definition/customer-orientation.html](http://www.businessdictionary.com/definition/customer-orientation.html)

- Caird, S. (1991) The enterprising tendency of occupational groups. *International small business journal*. Vol 9 (4), pp. 75-81
- Coforta. (2012) Cooperatie Coforta Retrieved May 16, 2012, from <http://www.coforta.com/home/cooperatie-coforta>
- Coleman, J.S. (1988) Social capital in the creation of human capital. *American journal of sociology*. Vol.94, pp. 95-120
- Cook, M. (1995) The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach. *American Journal of Agricultural Economics*. Vol. 77(December), pp. 1153-1159
- Coyne, K. P. (1986). 'Sustainable Competitive Advantage-What It Is and What It Isn't' *Business Horizons*, pp. 54-61.
- Cromie, S. (2000) Assessing entrepreneurial implications: some approaches and empirical evidence. *European journal of work and organisational psychology*. Vol 9, pp. 7-30
- Desrochers, M., and Fischer, K. P. (2005) The Power of Networks: Integration and Financial Cooperative Performance. *Annals of Public and Cooperative Economics*. Vol. 76(3), pp. 307-354
- Dewar, R.D., and Dutton, J.E. (1986) The Adoption of Radical and Incremental Innovations: An Empirical Analysis. *Management Science* Vol. 32 (11), pp. 1422-1433
- Dijk, G. van & Klep, L. (2005) Als 'de markt' faalt Inleiding tot coöperatie. *Paperback*,
- Fine, B (2001) *Social Capital versus Social Theory*. Routledge, London.
- FresQ, (2010), Jaarverslag 2010. Retrieved May 16, 2012, from [www.fresq.nl](http://www.fresq.nl)
- Fulton, M. (1999) Cooperatives and member commitment. *The finnish journal of business economics*. 4(99), pp. 418-437
- Furlong, G. (2005) 'Knowledge Management and the Competitive Edge, Doctoral dissertation, University of Greenwich Business School', [www.gre.ac.uk/schools/business/Dissertation/TOC.html](http://www.gre.ac.uk/schools/business/Dissertation/TOC.html)
- Johnson, G. and Scholes, K. (1999) *Exploring Corporate Strategy*. Harlow: Prentice Hall.
- Garcia-Perez, A. M., and Garcia-Martinez, M. (2007) The agrifood cooperative netchain. A theoretical framework to study its configuration. *Acta Agriculturae Scandinavica: Section C - Food Economics*. Vol. 4(1), pp. 31-39
- Ghauri, P. and Gronhaug, K. (2005) *Research methods in business studies a practical guide*, Third ed., Prentice Hall.
- Giannakas, K., and Fulton, M. (2005) Process Innovation Activity in a Mixed Oligopoly: The Role of Cooperatives. *American Journal of Agricultural Economics*. Vol. 87(2), pp. 406-422
- Gibb, A.A. (1990) Entrepreneurship and intrapreneurship –Exploring the differences, in Donckels, R. and Miettinen, A. *New Finding and perspectives in entrepreneurship*. Aldershot: Gower.

Grant, R.M. (1991) The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation, *California Management Review* Vol. (33:1), pp. 114-135.

Greenery. (2011) Annual report 2011 The Greenery. Retrieved May 16, 2012, from <http://en.thegreenery.com/home/news-and-publications/annual-report-2011>

Greenery. (2012) Organizational Chart. Retrieved May 24, 2012, from *en.thegreenery.com*

Hall, R. (1993) A Framework Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage, *Strategic Management Journal*, Vol. 14, No. 8, pp. 607-618

Hubers (2011) Business process redesign Nederlandse glasgroenteketens

Hult, T. M., Hurley, R. F. and Knight, G. A. (2004) 'Innovativeness: Its antecedents and impact on business performance', *Industrial Marketing Management*, 33, 429-438.

Isaksen, S. and Tidd, J. (2006) Meeting the Innovation Challenge: Leadership for Transformation and Growth. John Wiley & Sons, Ltd, Chichester

Johannessen, J. A., Olaisen, J. and Olaisen, B. (2001) Mismanagement of Tacit Knowledge: Knowledge Management, the Danger of Information Technology, and What to do About it, *International Journal of Information Management* Vol. 21(1), pp. 3–20.

Johnson, R., Scholes, K. and Whittington, R. (2008) Exploring Corporate Strategy: text and cases. 7th ed. Harlow: Pearson Education.

Kanter, R.M. (2003) Rosabeth Moss Kanter on the frontiers of management. Harvard Business School Press

Kemp, R.G.M., Folkeringa, M., Jong, J.P.J. de, Wubben, E.F.M. (2003) Innovation and Firm Performance. Research report H200207, commissioned by the Dutch ministry of Economic Affairs.

Kets de Vries, M.F.R. (1997) The entrepreneurial personality: A person at the crossroads. *Journal of Management Studies*. Pp. 34-57

Kirby, D. A (2003) Entrepreneurship. London: McGraw-Hill education.

Kleinknecht, A., Montfort, van K. and Brouwer, E. (2002) The Non-Trivial Choice between Innovation Indicators. *Technovation*. Vol. 11 (2), pp. 109-121

Koh, H.C. (1996) Testing hypotheses of entrepreneurial characteristics. *Journal of managerial psychology*. Vol 11, pp. 12-25

LEI. (2011) Land-en tuinbouwcijfers 2011

McCain, R.A. (2008) Cooperative games and cooperative organizations. *Journal of Socio-Economics*. Vol. 37(6), pp. 2155 – 2167

McClelland, D.C. (1961) The achieving society. Princeton NJ: Van Nostrand.

Mezzarol, T., Simmons R., and Mamouni-Liminios, E. (2011) A conceptual framework for research into co-operative enterprise. Centre for entrepreneurial management and innovation

Miles, R. E., Snow, C.C. (1992) Causes of failure in Network organizations. *California Management Review*. Vol. 34 (4), pp. 53-60

Nooteboom, B. and Gilsing, V.A. (2004) Density and strength of ties in innovation networks: a competence and governance view. *Eindhoven Centre for Innovation Studies*, working paper 04.01

Peredo, A. M., and Chrisman, J.J. (2006). Toward a Theory of Community-Based Enterprise. *Academy of Management Review*, Vol. 31(2), pp. 309-328.

Provan, K. G. and Kenis, P. (2007) Modes of network governance: structure, management and effectiveness. *Journal of Public Administration Research and Theory*, Vol. 18, pp. 229 – 252

Putnam, R.D. (1993) Making democracy work. Civic traditions in modern Italy. Princeton University Press

Rabobank. (2012)Floreren met rabobank. Retrieved April 17 , 2012, from <http://www.florerenmetrabobank.nl/>

Rotter, J.B. (1966) Generalised expectancies for internal versus external control of reinforcement. *Psychological monographs*. Vol. 80

Rouse, M.J. and Daellenbach, S. (1999) Rethinking research methods for the resource-based perspective: isolating sources of sustainable competitive advantage. *Strategic management journal*. Vol. 20, pp. 487-494

Schein, E.H. (2003) Organizational Culture and Leadership, San Francisco, CA Jossey-Bass

Schermerhorn, J.R., (2002), Management, John Wiley & Sons Ltd, USA

Sevarlic, M., Nikolic, M., and Simmons, R. (2010) Agricultural cooperatives and their membership in cooperative unions in Serbia. *ABSTRACT: Applied studies in agribusiness and commerce*, AGRIMBA, Vol 4

Smith, D. (2010) Exploring innovation. London [etc.] : McGraw-Hill Higher Education

Svendsen, G.L.H. and Svendsen, G.T. (2000) Measuring Social Capital: The Danish Co-operative Dairy Movement, *Sociological Ruralis*. Vol.40 (1), pp. 72-86.

Svensson, G. (2002) Supply Chain Management: The re-integration of marketing issues in logistics theory and practice. *European Business Review*. Vol. 14(6), pp. 426-436.

Tidd, J., Bessant, J. (2009) Managing Innovation: Integrating Technological, Market And Organizational Change., Paperback

Timmons, J.A, Smollen, L.E. and Dingee, A.L.M. (1985) New venture creation. Homewood IL: Irwin.

Vaus, D.A. de (2001) Research Design in Social Research. First ed., Sage Publications

Verschuren, P. and Doorewaard, H. (2005) Het ontwerpen van een onderzoek. 3rd ed. Lemma Bv.

Wade, M. and Hulland, J. (2004) The Resource-Based View and information Systems Research: Review, Extension, and Suggestions for Future Research, *MIS Quarterly*. 28(1): 107–42.

Yin, R.K. (1989) Case study research: design and methods. First Ed., Sage Publications.

Yolles, M. (2009) Competitive advantage and its conceptual development : An exploration. *Business Information Review*. Vol 26 (2), pp. 93–111.

ZON (2011) Annual Report 2011

ZON (2012) Geschiedenis. Retrieved May 23, 2012, from <http://www.zonbusiness.com/geschiedenis.asp>

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