Interorganisational Collaborations Towards Sustainability
An exploratory study of farming companies and their partners in Southern Sweden

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Acknowledgement

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Abstract
Increasing population and rising incomes change food consumption patterns. The United Nations estimates that global food demand will double between 2010 and 2050 (Alexandratos & Bruinsma, 2012). As a result, many governments are promoting sustainable agriculture to increase their food production. The Swedish government aims to make agriculture in Sweden sustainable, resilient, competitive and attractive (Swedish National Food Strategy, 2017). This informs our choice of southern Sweden, the breadbasket of the country as the study area. Climate change, competition and concerns over the new Common Agricultural Policy are the main challenges of farmers in the region. Therefore, the purpose of the study is to investigate interorganisational collaborations from the perspectives of farmers in the region.

We used exploratory approach to study collaborations among farmers and their partners where semi-structured interviews and observations were used to gather data. We adopted Creswell’s steps of data analysis.

The study finds that many of the farmers have less knowledge of sustainability and sustainable agriculture. The study finds two main types of interorganisational collaborations existing between and among the farming companies and their partners - sustained dyadic collaborations and long-term collaborations. The study also finds the factors that enable and sustain collaborations in the sector. These factors are classified into enablers and sustainers. The enablers include climate change, legislation and regulations, globalisation, competency motivations, resource-related reasons, society-related reasons, partner reputation, expertise, quality and trustworthiness and capacity to deliver on promises, and the sustainers are trust building, transparency, good relationships and cooperation, shared vision, and good agronomic advice from partners. The study concludes that interorganisational collaborations between and among farming companies and their partners are driven largely by economic interests and climate change and therefore have little to do with sustainability.

Keywords: Inter organisational collaboration, sustainability, farming companies, southern Sweden and agriculture.
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<tr>
<td>CAP</td>
<td>Common Agricultural Policy</td>
</tr>
<tr>
<td>CC</td>
<td>Collaborative Continuum</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>CSO</td>
<td>Civil Society Organisation</td>
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<td>CVC</td>
<td>Collaborative Value Creation</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>LRF</td>
<td>The Federation of Swedish Farmers</td>
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<td>NGO</td>
<td>Non-governmental Organisations</td>
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<td>RQ</td>
<td>Research Question</td>
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<tr>
<td>SCB</td>
<td>Statistics Sweden</td>
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<td>SDG</td>
<td>Sustainable Development Goals</td>
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<tr>
<td>SLU</td>
<td>Swedish University of Agricultural Sciences</td>
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<tr>
<td>TBL</td>
<td>Triple Bottom Line</td>
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<td>UN</td>
<td>United Nations</td>
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1.0 Introduction

This chapter presents the background of the study. It begins by presenting sustainability and sustainable agriculture as relevant concepts that serve as the basis for the study. The chapter also covers agriculture from a global perspective, European perspective to a Swedish perspective. This will provide a comprehensive picture on the global, regional and country-level efforts to promote sustainable food production. It further narrows down on agriculture in southern Sweden by highlighting useful statistics about agricultural production in the region. The next section presents the research problem which is followed by the aim and purpose of the study. This is followed by the research questions that guide the study.

1.1 Background

1.1.1 Sustainability and sustainable agriculture

Sustainability has its roots from the work of the Brundtland Commission. According to the report of the Commission Our Common Future sustainable development is “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). This definition reveals important elements that serve as the basis for sustainability and sustainable development in recent years - a desire to meet the needs of everyone in a responsible way and a commitment to respect livelihood sources of everyone. In 1987, John Elkington in his attempt to explain sustainable development from the context of business organisations uses the term Triple Bottom Line (TBL) to describe it. This concept views sustainability as the integration of economic, social and environmental dimensions into the operations of an organisation (Ebbesen & Hope, 2013). In other words, it involves making strategic and day-to-day business decisions without excluding soft issues like environmental hazards, environmental protection, employee health, employee remuneration, safe working environment etc. It is common knowledge that traditionally the main objective of business entities was profit making - the bottom line (see arguments of Milton Friedman's on why businesses should focus on satisfying shareholders instead of society in Werther and Chandler (2014, p. 107)) without caring much about factors that affect other stakeholders in society (Slaper, 2011). For this reason, TBL was coined to help address the imbalance the quest for profits create in the system by enabling businesses to integrate the social and environmental factors in their operations along with the economic factors. It has been widely accepted that integrating TBL into organisations promotes environmental, social and economic sustainability.

According to Keeble et. al. (2003) there is an increasing number of organisations that incorporate sustainability in their operations and practices (cited in Ebbesen & Hope, 2013). Organizations have different reasons for incorporating economic, social and environmental factors into their operations, practices and projects. Ebbesen and Hope (2013) state that organisations integrate sustainability into their operations to enable them to create economic value “for the business in terms of both product performance and production costs” (p. 4). Legitimacy reasons also drive organisations to adopt sustainability measures that enhance their reputation among the stakeholders. In addition, Muller (2006) state that sustainability improves organisational “effectiveness and flexibility” (cited in Ebbesen & Hope, 2013, p. 4). More importantly, organisations that aim to address “global environmental issues such as climate change and resource depletion” are likely to adopt sustainable practices (Ebbesen & Hope, 2013). In other words, aside from economic motivations it is necessary for organisations such
as farming companies whose activities are adversely affected by the phenomenon of climate change to adopt sustainable practices to enable them to adapt and mitigate its effects. This involves making decisions that are based on the TBL concept. To a large extent agriculture in southern Sweden is exposed to climate change in similar ways as others in Europe and elsewhere. As such it is important for farmers to take the economic, social and environmental dimensions of sustainability into consideration.

Based on the explanations above, it is important to state that the Swedish Board of Agriculture has recognised the importance of sustainability in Swedish agriculture, fisheries and rural development. As a result, they have stated that “[sustainability] is part of our mission from the government and is something we do in our everyday life and that we continue with” (Jordbruksverket, 2019). According to Lantinga, Oomen and Schiere (2015) sustainable agriculture refers to “an environmentally sound, productive, economically viable and socially desirable agriculture” (abstract). This form of agriculture according to the authors is “an alternative to modern industrialised or conventional agriculture with high external inputs” (abstract). This study adopts this definition since it focuses on interorganisational collaborations toward sustainability in the agricultural sector of southern Sweden. Therefore, adopting sustainable agricultural practices will enable farmers in southern Sweden to reduce the impact of climate change on their farms. For example, the droughts that lowered crop yield in 2015 as bemoaned by Statistics Sweden and Swedish Board of Agriculture (Statistics Sweden - SCB, 2016) and or the hot weather and drought that occurred in 2018 (SCB, 2018).

One of the ways farmers can integrate sustainable practices into their practices is interorganisational collaborations. In the context of this study interorganisational collaboration as any form of relationship - formal or informal that exist between and among farmers and their partners which has the objective to improve the productivity of farms (see section 2.1 for details). The Swedish Board of Agriculture considers collaboration as very critical in achieving sustainability in Swedish agricultural sector. They observe that “[i]n order to succeed in the sustainability work, collaboration is the most important factor” that stakeholders should do (Jordbruksverket, 2019). It is clear from the elucidations here that adopting sustainability is beneficial to farming companies, consumers and the environment. In the next section, we show how collaborations between farming companies and their stakeholders are essential in the transition of farms towards sustainability.

1.1.2 Agriculture from a global perspective

Food security is of primary importance to all nations. The reason for this is not far-fetched because all human beings need food to survive. The United Nation Organisation estimates show that rising incomes and increasing populations will double global food demand between 2010 and 2050 (Alexandratos & Bruinsma, 2012). This means global food production needs to increase for the projected increases to be met. In the wake of the expected increase in demand for food is the adverse impact of climate change on agriculture. It has been observed that climate change will affect crop productivity, crop quality, weed and pest control, land use, grassland, and land use for agricultural purposes (Eckersten, Karlsson & Torssell, 2008). With this in mind, different stakeholders around the world such as international organisations, non-governmental organisations and multinational corporations are playing significant roles in promoting sustainable agricultural practices with the objective to mitigating the effects of climate change on farming and increasing food production (Alexandratos & Bruinsma, 2012). In this regard, the role of the United Nations (UN) is worth noting. For example, the United Nations General Assembly in 2015 mobilises its member states to adopt the 17 Sustainable Development Goals (SDGs) and the 2030 Agenda for sustainable development. The SDG goals
provide “a shared blueprint for peace and prosperity for people and the planet, now and into the future” (UN, 2015, n.p.). All UN member states are committed to the achievement of all the goals. Out of the 17 goals, 3 have direct connection with agriculture. First, SDG goal 2 commits the world to ending hunger, achieving food security and promoting good nutrition. Second, SDG goal 12 is about making agriculture sustainable. Third, SDG goal 13 is a commitment by UN Member States to reduce, adapt and mitigate the effects of climate change and finance climate change initiatives (UN, 2015). This shows the importance UN member states attach to the production of food in a sustainable manner. To further emphasise the importance of agriculture, the Food and Agriculture Organisation (FAO) observe that achieving the SDGs is connected to food production because everyone needs food to live and work (FAO, 2018). Therefore, agriculture is seen as very critical for the attainment of the SDGs and the 2030 Agenda for sustainable development. This is exemplified by the efforts different stakeholders such as the UN are making to promote sustainable agriculture.

1.1.3. Agriculture from the European Union perspective

At the level of the European Union (EU), efforts are being made to make food production systems in Europe resilient, robust and sustainable to enable them to withstand the challenges of climate change in the coming years (Allen, Bas-Defossez & Weigelt, 2018). Over the last three decades, the EU has been making direct payments and granting subsidies to European farmers through the Common Agriculture Policy (CAP) with the objective to increasing food supply (Matthews, 2018). The Common Agriculture Policy (CAP) is the official agricultural policy of the EU. It was introduced in the 1950s to provide support to European farmers and undertake important agricultural-related programmes (Matthews, 2018). However, new global challenges necessitated revision of the policy in 2017. Relevant stakeholder discussions were held and new proposal submitted.

According to the new proposals, after 2021 the EU will reduce or remove (completely) the subsidies it grants to farmers under the existing CAP arrangements (Hamaide, 2018). The discussion on the new EU agricultural policy (post CAP era) is fraught with disagreements on the funding mechanism of the new policy (Matthews, 2018). Clearly, this has become a source of uncertainty among the stakeholders including farmers. Matthews (2018) also observes that Britain’s exit of the EU will have implications for global food trade in which case food production in Europe. He observes that Brexit will also affect Europe’s agricultural policy since it will leave a funding gap. Considering the uncertainties associated with Brexit and the new agricultural policy, European farmers are likely to face new challenges after the removal or reduction in the subsidies. To a large extent this will affect their ability to implement sustainable agricultural practices. These involve the adoption environmentally-friendly farming practices. They will also have to adopt new ways of adapting and mitigating the effects of climate change on their farms. In addition, they are likely to encounter stringent compliance (of environmental protection requirements) assessments from their national governments. In other words, the changes present new challenges that farmers in southern Sweden and their European counterparts need to address as they transition their farms toward social and environmental sustainability.

1.1.4 Agriculture from a Sweden perspective

Sweden is one of the largest European countries in terms of land size. It has a total land area of 41.1 million hectares out of which only 2.7 million hectares accounts for about 6.2 percent
are used for agricultural purposes (Jordbruksverket, 2019.). Even though it is located in the north of Europe it has a favorable climate that supports different types of agricultural activities - crop cultivation and animal keeping. The Swedish Board of Agriculture reports that between 2003 and 2007 the number of agricultural sector workers increased by 10,000. Out of this number, 40 percent were women (Jordbruksverket, 2017). In addition, a survey by the Board shows that agriculture employed 171,400 people in 2016 (Jordbruksverket, 2017). In terms of demographics, majority of the people working in agriculture were above 65 years which represents 34 percent. Also, individuals between 55-64 years constituted 28 percent while those between age 45 and 54 were 29 percent. In terms of gender, in 2016, among the workers of the agriculture sector only 16 percent were women whereas 84 percent were men. This trend according to the Swedish Board of Agriculture has not changed since 2013 (Jordbruksverket, 2017). This shows that the sector is dominated by men majority of whom are above 55 years. There is undocumented perception that farmers who live in the countryside are conservative which suggests that they may not be open to new technologies, innovations and sustainable agricultural practices.

There are numerous farming companies operating in the agricultural sector of Sweden. Some of them are large commercial farms whereas others are small farms which owned by families. Majority of the farms are owned by families who also earn other income from employment in other sectors (Jordbruksverket, 2017). Also, about a third of the farms are joint enterprises in which the owners combine farming with for example forestry, tourism etc. It is important to state that some of the farms are open air (outdoor) whereas some are based on greenhouse technology (Jordbruksverket, n.d). The common types of crops grown on the farms are wheat, barley, oats, potatoes, rye, leguminous crops and sugar beet. Other common horticultural products grown in the country are fruits, vegetables, berries and decorative plants (Jordbruksverket, n.d.). Therefore, it can be seen that Swedish farming companies grow a variety of crops and horticultural products.

For many decades Swedish agriculture has undergone a lot of transformations in which farmers change the way they do things because of new challenges and conditions. Some of these changes have been necessitated by ecological, social, institutional and technological factors (Bohman, 2017). According to the Jordbruksverket (n.d.) over the last six decades Swedish agriculture has gone through several structural changes. Alexandratos and Bruinsma (2012) note that climate change is a threat to agricultural systems around the world. As a result, Swedish farmers will continue to adjust the structures of their farms to be able to withstand the effects of climate change. More importantly, they need to adopt sustainable agricultural practices in order to adapt and mitigate the effects of climate change on their farms.

For this reason, in 2017, the Swedish government developed a national food strategy that aims to make the Swedish food supply chain resilient, competitive and attractive such that it will be sustainable and can withstand the effects of climate change. According to the National Food Strategy for Sweden by 2030 the government should develop a competitive food supply chain that increases Sweden’s food production “while achieving the relevant national environmental objectives, aiming to generate growth and employment and contribute to sustainable development throughout the country” (p. 10). Achieving this strategy will require collaborations and active participation of all stakeholders such as agricultural enterprises, farming companies, social enterprises, private companies, NGOs, civil society organisations and government agencies. Thus, the UN’s recognition of collaborations or partnerships as critical to the achievement of global goals and Agenda 2030 for sustainable development (see SDG goal 17) (UN, 2015).
1.2 Agriculture in southern Sweden

Southern Sweden is one of the most important farming areas in Sweden (Moiler, 1990). It is home to large commercial farms, small-scale farms and family farms. In these farms the main agricultural activities are crop production and animal keeping. Some of the common crops grown in the region include sugar beets, potatoes, grasses, winter rape, winter barley, peas, oats (see Figure 1 for details). The occurrence of hot weather and drought last year affected yields of several crops in the region. This is evident in figure as total production for most of the crops dropped marginally and some instances significantly as in the case of winter wheat which fell from 881,900 tonnes in 2017 to 375,400 tonnes in 2018 which is 57.4% less. Similarly, spring barley production fell from 447,900 tonnes to 311,700 tonnes in the same period which is 30.4% less. The same can be said of winter wheat (Statistics Sweden, 2019). Clearly, this affects the earnings of farm enterprises and most importantly it is not for Sweden’s food security. Therefore, if this trend is not checked and it continues to fall in this manner it will soon pose a food security threat to the country as many consumers will scramble to buy less sugar beets, spring barley, winter wheat etc. This is why farm managers need to collaborate with their stakeholders to make their farms sustainable, adaptable and resilient to climate change.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Source: Statistics Sweden 2019</th>
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<tbody>
<tr>
<td>Total production, tonnes by region, crop and year</td>
<td>2017</td>
</tr>
<tr>
<td>Skåne county</td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td>6,900</td>
</tr>
<tr>
<td>Field beans</td>
<td>18,800</td>
</tr>
<tr>
<td>Oats</td>
<td>37,500</td>
</tr>
<tr>
<td>Peas</td>
<td>10,000</td>
</tr>
<tr>
<td>Potatoes for processing starch</td>
<td>196,200</td>
</tr>
<tr>
<td>Rye</td>
<td>75,000</td>
</tr>
<tr>
<td>Spring barley</td>
<td>447,900</td>
</tr>
<tr>
<td>Sugar beets</td>
<td>1,890,400</td>
</tr>
<tr>
<td>Table potatoes</td>
<td>202,600</td>
</tr>
<tr>
<td>Temporary grasses</td>
<td>479,210</td>
</tr>
<tr>
<td>Temporary grasses first cut</td>
<td>252,090</td>
</tr>
<tr>
<td>Temporary grasses re-growth</td>
<td>227,120</td>
</tr>
<tr>
<td>Winter barley</td>
<td>32,700</td>
</tr>
<tr>
<td>Winter rape</td>
<td>168,600</td>
</tr>
<tr>
<td>Winter wheat</td>
<td>881,900</td>
</tr>
</tbody>
</table>
As shown above, food production in southern Sweden is affected by climate change. According to (Fogelfors et. al, 2009) by the end of this century the region is likely to experience temperatures that are favorable to agriculture during farming seasons and on the other hand, during summers it is likely to become drier with an increment of about 20-30% in temperature (Fogelfors et. al, 2009). Even though this scenario may look good to some extent as compared to other geographical locations, the authors caution that farmers in the region will have to prepare themselves for “drawbacks in the form of more frequent extreme weather events, [such as], more severe crop pathogen attacks” (Fogelfors et. al, 2009, p. 17) as experienced in 2018 (see the next section for details). As noted above, collaborations can be an effective way of dealing with the challenges of climate change since it involves sharing of ideas and resources by different stakeholders with the aim of addressing common problems.

Sweden can be said to have favourable environment for interorganizational collaborations. This is because it was ranked as one of the most innovative countries in the world in 2014 (IVA, 2014). In respect to southern Sweden it is considered as one of the innovative regions in the country. It is home to reputable universities, research institutes, international organisations, non-governmental organisations (NGOs), civil society organisations, start-ups and social enterprises. From the illustration above, it is clear that the prevailing environment in the region presents an opportunity (with regards to sharing knowledge and expertise) for farmers to leverage in adapting and mitigating the effects of climate change and making agriculture sustainable.
A Map showing Land Use in Southern Sweden

Agricultural land is shown in medium yellow. The agricultural land in southern Sweden is suitable for growing grains, root crops, vegetables and fruits. Animals such as cattle and sheep are also kept in the region.

Map layout: Rufai Issifu and Louai Al Chami. 1st June 2019, Map data: Department of Human Geography, Lund University
1.3 Research problem

From the section above, it is clear that southern Sweden can be said to be a hub of agricultural innovation and a breadbasket for Sweden. As indicated above, the different innovations in the region can be harnessed towards the achievement of Sweden’s 2017 national food strategy. Specifically, farmers can leverage the rich environment in adopting sustainable agricultural solutions and innovations that will enable them to adapt and mitigate climate change effects and increase their food production. The achievement of the objectives set in the strategy is likely to be constrained by climate change. Research (see Eckersten, Karlsson & Torssell, 2008) show that climate change will have severe consequences on agriculture in the coming decades. In a comprehensive review of literature on climate change in Europe, Eckersten, Karlsson and Torssell (2008) identify the following future climate change scenarios: warmer temperatures with an expected increase ranging from 0.1 and 0.4 every decade, increase in precipitation in Northern Europe, a collapse of thermohaline, perverse climate change due to increase in greenhouse gases emissions and a general rise in sea-levels. The authors also carry out analyses of the effects of climate change on Swedish agriculture in future. They point out several key areas climate change will adversely impact Swedish farms. According to them climate change will affect crop productivity, grassland, crop quality, weeds, pest prevalence and resistance, soil quality, environment, biodiversity, animal husbandry and land use. For example, with regards to droughts impact on agricultural productivity, in 2016 Statistics Sweden and the Swedish Board of Agriculture observe that “[c]ompared with last year's unusually high harvest levels, this year's yields per hectare of cereal crops are lower in nearly all parts of the country. In southern Sweden there are reports of crops that ripened prematurely due to water shortage. Yields per hectare decreased most in Skåne and Halland Counties compared with last year” (Statistics Sweden - SCB, 2016). Similarly, hot weather and drought in 2018 resulted in low crop production including potatoes (see Figure 2 and figure 3) (Statistics Sweden - SCB, 2018). It is clear from the illustration here that climate change will most likely affect food production in Sweden in the coming decades. As such there is a need for farmers to adopt sustainable agricultural practices to enable them to reduce the impact of climate change on their farms.
Aside from the adverse impact of climate change on agriculture, farmers in southern Sweden who usually receive subsidies and grants through the EU’s CAP from the Swedish government are likely to face financial constraints in their attempt to adopt sustainable agricultural practices. In light of recent global challenges, the European Commission in 2017 developed and released a new CAP proposal after a stakeholder consultation on the existing CAP (Matthews, 2018). The Commission proposes that direct financial payment to farmers which
used to be based on compliance of EU regulations will after 2020 be based on member states assessments of farmer performance.

Moreover, a review of literature on agriculture in southern Sweden shows that much of the existing literature has been focused on agricultural transformation (see Moller, 1990; Archambault, 2003; Bohman, 2017; Tyler et al., 2018), uncertainties over environmental issues among farmers (see Sjölander-Lindqvist, 2004) and wood pasture management (Sandberg & Jakobsson, 2018). It is worth noting that during the literature search not much literature on interorganisational collaborations was found in the sector. As such we consider this as a gap in the literature which we aim to fill with our study. Considering the research gap, effects of climate change and impending reduction in EU’s support to farmers, this study aims to contribute to research on interorganisational collaborations from the perspectives of farmers and their stakeholders in southern Sweden as farmers begin to consider Elkington’s Triple Bottom Line - economic, social and environmental elements in their farming decision-making. By filling the gap, this study will also contribute to research on interorganisational collaborations towards sustainability. Specifically, this study seeks to fill the research gap by exploring the types of collaborations between farmers and their partners in southern Sweden. It is also intended to explore the factors that influence collaborations in the agricultural sector as farming companies collaborate with their stakeholders toward sustainability.

1.4 Research aim and purpose

The purpose of the study is to explore interorganisational collaborations in southern Sweden’s agricultural sector. It has two main aims - theoretical and practical. Theoretically, the study aims to contribute to knowledge on interorganisational collaborations in the agricultural sector of southern Sweden. This is timely considering the limited nature of research on interorganisational collaborations in the sector. It is also timely because of the need to make farms sustainable as part of the SDGs and 2030 Agenda for sustainable development. Similarly, the study has practical aims which can be categorised into two. First, it aims to generate insights for stakeholders by exploring interorganisational collaborations types existing between and among farmers and their partners. This will allow for the assessment of the relevance of existing collaborations to sustainability and sustainable agriculture. Second, it seeks to explore the key factors that influence the formation of interorganisational collaborations between and among the farming companies and their stakeholders as traditional farms begin to adopt sustainable agricultural practices. This will help in identifying the key factors that motivate farming companies to collaborate with their stakeholders. Specifically, this will allow for the assessment of the factors that enable and sustain interorganisational collaborations in the agricultural sector. Therefore, the study is expected to generate insights and implications that will be of interest to stakeholders in the agricultural sector, food industry and agricultural value chain such as farmers, civil society organisation (CSOs), nongovernmental organisations (NGOs), researchers, research institutes and universities.

1.5 Research questions

To achieve the purpose of this study we will investigate the following research questions:

(1). What types of collaborations exist between and amongst farming companies in southern Sweden and their stakeholders?

(2). What are the key factors that enable and sustain the collaborations?
The first chapter is followed by the theoretical framework that guide the study. The next chapter presents the research methods used in conducting the study. The fourth chapter presents the findings and analysis of the findings and their corresponding discussions. The last chapter presents the conclusion and the theoretical and practical contributions of the study.
2.0 Theoretical background and analytical framework

This chapter discusses the theoretical underpinnings of this study. The theoretical foundation is based on interorganisational collaborations with a focus on farming companies in southern Sweden. The chapter provides basis upon which we will describe the types of collaborations that exist between and among farmers and their stakeholders. The theoretical framework will also guide the analysis of interviews and field notes. The chapter presents a brief overview of interorganisational collaboration models, Gray and Stites’ sustainability continuum and their interorganisational collaboration models.

2.1. Interorganisational collaborations

2.1.1 Organisations

Organisations of different shapes and sizes are open systems. Organisations also operate in environments with diverse stakeholders (Tolbert & Hall, 2011). This shows that organisations are not islands in themselves. There are several factors in an environment that affect the operations of organisations. Some of these factors are outside the control of organisations whereas others are within the control of organisations (Tolbert & Hall, 2011). For example, government regulation, natural disaster, competitor decisions in most cases are not controllable by organisations. In addition, different stakeholders play important roles in organisational environments. According to Werther and Chandler (2014, p. 41), “A stakeholder in an organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization’s objectives.” In other words, the success of an organisation depends large on the stakeholders it has and the relationship it has with them in which case organisations need to build relevant connections and meet the interests of all their stakeholders. The stakeholders and factors in an organisation’s environment affect its performance and outcomes (Tolbert & Hall, 2011). As a result, the authors describe organisational environments as complex and turbulent. According to Gray and Wood (1991), collaborations between organisations can be used in minimising environmental complexity and turbulence.

2.1.2 Collaborations and interorganisational collaborations

There is no one accepted definition of collaboration. Several definitions and descriptions of the concept have been given by various scholars (see Gray & Wood, 1991; Austin, 2000; Austin & Seitanidi, 2012a; 2012b; Gray & Stites, 2013). Donahue (2010) terms this as a “hopelessly ambiguous” situation (cited in Gray and Stites, 2013). According to Gray and Wood (1991, p. 146) “collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain”. Here, the authors only describe the collaboration process and the dynamics involved in the process. This was an improved version of Gray’s definition of collaboration. He defines collaboration as “a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible” (Gray, 1989 cited in Gray & Wood, 1991, p. 143). Since the time these definitions were given, research on collaborations have grown significantly (Gray & Stites, 2013). In practice the phenomenon of collaborations has increased tremendously and has been predicted to become a norm among organisations in this century (Austin & Seitanidi’s, 2012a). From the perspective of Iacono (2015) collaboration can simply be described as “the action of working together, in a team approach, to get something accomplished” (Iacono, 2015, p. 1). This view of collaboration is limited since it
does not state/account for the collaboration process. Utting and Zammit (2009) define collaborations “as initiatives where public-interest entities, private sector companies and/or civil society organizations enter into an alliance to achieve a common practical purpose, pool core competencies, and share risks, responsibilities, resources, costs and benefits.” (Cited in Gray & Stites, 2013, p. 17). In other words, collaborations involve the working together of different organisations from different sectors toward achieving a common goal in which each partner comes with a certain competence, resources, expertise etc. This definition was adopted by Gray and Stites in their study even though they refer to the concept as multi-sector collaborative partnerships. We also adopt the definition of Utting and Zammit to guide this study. However, we modify their definition to it appropriate and relevant to this study. As such in the context of this study we define interorganisational collaborations as any form of relationship - formal or informal that exist between and among farmers and their partners with the objective to improve the productivity of farms. In other words, interorganisational collaborations can be between two farming companies, among many farming companies, between one farming company and a non-farming organisation, and or among many farming companies and many non-farming organisations. We find this definition appropriate and relevant to the study purpose and will help in carrying out our study since we are seeking to investigate interorganisational collaborations between and among farming companies and their partner organisations in southern Sweden.

2.2 Interorganisational collaboration models

This section highlights existing collaboration models from different perspectives and academic fields. It helps in situating the context from which the theoretical foundations of this thesis are derived. Since the early 1990s (see Wood & Gray, 1991) up until the early 2010s (see Austin & Seitanidi’s, 2012a; 2012b; Gray & Stites, 2013), research on interorganisational collaborations is reported to have grown substantially. Over the last decade, as collaboration research grows, varying models seeking to improve our understanding of how and why organisations collaborate with their stakeholders continue to emerge. One of the early collaboration models was proposed by Gray and Wood in 1991. After reviewing nine research articles, the authors develop a three-phase collaboration model that explains the factors that influence collaborations from the perspectives of preconditions (consist of factors that make collaborations among organisations possible), process and outcomes. This model was complemented by Thompson and Perry’s (2009) work when they propose a five theme-based (governance, administration, organizational autonomy, mutuality, and norms) theoretical model that seeks to help managers to understand the collaboration process (which Wood and Gray (1991) termed the black box) and to enable them to collaborate effectively. To some extent, this work represents a major milestone in theory development in collaboration research. Both Wood and Gray (1991) and Thompson and Perry’s (2009) works are great efforts to increase our understanding of interorganisational collaborations they cannot be used in identifying external factors that influence organisations’ desire to want to collaborate with their stakeholders. In addition, Austin and Seitanidi’s (2012a) and (2012b) Collaborative Value Creation (CVC) framework is worth mentioning. This framework consists of four main components - value creation spectrum, collaborative stages, collaboration processes and collaboration outcomes and aims at analysing social partnerships from the perspectives of businesses and nonprofits. It is evident that this framework does not make room for assessment of collaborations outside the scope of businesses and nonprofits. From the above explanations, it can be seen that the existing collaboration models and/or theories appear to be inadequate and less relevant for our study. This is why we opted for Gray and Stites’ models which are our points of focus in the next section.
2.3 Gray and Stites’ Collaboration Continuum

In the wake of the growing research into interorganisational collaborations and sustainability, Gray and Stites (2013) propose a descriptive collaboration model that explains types of collaborations based on a four-phase sustainability continuum (see section 2.2.1). In their work, they also propose a four-factor model that accounts for the different factors that influence the outcomes of interorganisational collaborations (see section 2.2.2). Before developing the models, Gray and Stites (2013) review over 275 research articles on interorganisational and multi-sector collaborations from research and practice sources across different countries. As a result, the models they develop are based on several theories including but not limited to institutional theory, resource dependence, stakeholder theory, resource-based view, agency theory, transaction cost economics, environmental justice, network theory, and critical theories. This is important because it enables the models to make up for the theoretical inadequacies previous theories or models have been associated with as observed by Gray and Wood (1991) that “no single theoretical perspective can serve as the foundation for a general theory of collaboration” (p. 19). This shows that adopting Gray and Stites’ models which encapsulates multiple theories of collaboration will enhance the theoretical credibility of our study. Therefore, it is important to state that our choice of Gray and Stites’ (2013) models is influenced by the aim and purpose of this thesis. More importantly, based on our review of the existing literature we find their models relevant and appropriate for answering our research questions. For instance, the descriptive four-phase model will allow us to identify and describe the nature of collaborations that exist between farm enterprises in southern Sweden and their stakeholders. Similarly, the four-factor model will enable us to identify the key factors that influence the formation of collaborations and the factors that sustain them in the region. Therefore, we are convinced that their models will serve as useful guide to our study.

2.3.1 Collaboration types and sustainability continuum

Following an extensive review of collaboration research and specifically multi-sector partnerships, Gray and Stites (2013) identify and categorise the varying types of partnerships organisations enter into with their stakeholders. The authors classify collaboration types based on a four-phases collaboration-sustainability continuum - reactive, transactional, integrative and transformational. They adopted the continuum from Austin (2000) and Austin and Seitanidi (2012a) who called it collaborative continuum (CC). Austin (2000) proposes reactive, transactional and integration as phases of collaborations. This work has been referenced quite extensively (see Berger et al., 2004; Bowen, Newenham-Kahindi, & Herremans, 2010). However, Austin and Seitanidi (2012a) observe that the relationship between partners in a collaboration changes as time passes. As such, they updated Austin’s (2000) collaborative continuum (CC) by adding a transformational phase. The new phase represents “a higher level of convergence” (Austin & Seitanidi, 2012a, p. 736). As a result, the new CC consists of reactive, transactional, integrative and transformational phases.

As noted earlier, Gray and Stites (2013) adopt the new CC to understand the types of collaborations organisations that are transitioning toward sustainability are entering into with their partners (see Figure 3). The authors position the collaboration types they identify during their literature review on the new CC. The different phases of the CC represent the “increasing levels of responsibility and complexity that partners face as they move from partnerships in the lower left to the upper right of the figure” (Gray & Stites, 2013, p. 24). The phases according
to the authors also allow us to differentiate between collaborations and their outcomes. First, under the reactive phase collaborations take the form of the provision of welfare services to stakeholders as a response to government regulation or as a CSR strategy. Second, the transactional phase consists of collaborations which organisations enter for the purpose of making profits. Third, collaborations under the integrative phase seek to achieve the three elements of the triple bottom line (TBL) - economic, social and environmental. Lastly, the transformative phase includes collaborations in which firms are engaged in empowering their stakeholders, contributing to government policies and solving complex problems of their community (Gray & Stites, 2013). From the perspective of sustainability, this implies partnerships that are in the reactive phase are more “threat-induced, compliance or charity-driven responses” (Gray & Stites, 2013, p. 24), whereas collaborations in the transformational phase are mostly driven by commitments to sustainability. The following are details of the collaboration-sustainability continuum and their collaboration types.

**Figure 3**
Adopted from Gray and Stites (2013)

**Reactive phase**
**Philanthropy/sponsorship:** Gray and Stites (2013) observe that this type of partnership occurs when a business entity makes a “direct financial contribution to a charity or an NGO” (p. 22). It usually occurs between two organisations. This type of collaboration can be seen in the form of corporate social responsibilities organisations undertake.

**Short term, dyadic partnership:** this form of partnerships is short-sighted and focus on short-term prospects of a firm’s operations. Firms that engage in dyadic partnerships usually focuses on solving specific problems after which the partnership expires (Gray & Stites, 2013). The authors observe that short-term dyadic partnerships sometimes focus on one “sustainability issue” (2013, p. 23). This partnership type is closely related to the sustained dyadic partnership which is classified as transactional on an organisational transition toward sustainability.
**Transactional phase**

**Sustained dyadic partnership:** this type of partnership has a longer perspective than the short-term dyadic partnership. It occurs when an organisation chooses to work with another organisation for a prolonged period of time with a focus on one particular issue/challenge/problem that is posing a threat to its profitability (Gray & Stites, 2013). For example, two firms could engage in addressing the challenges associated with their supply chains. The main objective of this type of partnership is to enable the firms involved to avoid losses, increase market share and become profitable (Gray & Stites, 2013).

**Integrative phase**

**Policy dialogues:** According to Gray and Stites (2013) policy dialogues refers to a situation where government agencies and different stakeholders meet to discuss and make policy recommendations about an important issue. For example, government agencies, NGOs, civil society and agriculture-sector stakeholders can come together “to develop voluntary industry sustainability standards” to regulate the sector (Gray & Stites, 2013, p. 24).

**Transformational phase**

**Collaborative governance:** this form of partnership is used in solving the developmental challenges of governments. According to Gray and Stites (2013), collaborative governance occurs when a government “involves businesses and other stakeholders in the design and implementation of governmental activities” (p. 24). At this level, stakeholders have relevant expertise and are committed to the issue under consideration. This enables them to form “highly interconnected relationships” among themselves which to a large extent make them effective at addressing their challenges (Gray & Stites, 2013, p. 20). From foregoing, it can be observed that in terms of sustainability businesses and organisations that participate in collaborative governance are usually very committed to sustainable development and are willing to contribute toward a bigger change in their communities.

### 2.3.2 Five-factor collaboration model

This section presents the five-factor collaboration model proposed by Gray and Stites. This model can be used in identifying factors that affect the outcomes of collaborations. In the following sections each of the five factors - drivers, motivations, partner and partnership characteristics, process issues and outcomes are explained.

![Figure 4](Source: Gray and Stites (2013))

**Drivers**

According to Gray and Stites (2013) there are certain external factors that drive the formation of collaborations between organisations. These factors are mainly out of the control of organisations. Gray and Stites (2013) identify the external drivers of collaborations as follows:
social perceptions, expectations and preferences; technological developments; concerns about globalization; regulatory environment; and a decline in government efficacy.

**Social perceptions, expectations and preferences.** Global campaigns on topics such as Fairtrade, sustainability and climate change and societies are increasing awareness of corporate responsibilities are compelling firms to act in ways that take public expectations into consideration. Firms resort to collaborations to be able to meet the increasing societal expectations.

**Technological developments:** The evolving nature of technology also facilitates firms’ collaborations toward sustainability. Technology eases communicate and sharing of information and has allowed firms in separate locations to collaborate in their transition toward sustainability.

**Concerns about globalization:** the world has become a global village, thanks to globalization. It has enabled large firms in developed countries to take advantage of low wages in developing countries by outsourcing their operations through collaborations.

**The regulatory environment:** every country has regulations that serve as rules and or laws guiding the behaviour of actors in a system. Governments desire to promote sustainability can lead them to initiate sustainability policies, regulations, standards and codes which firms are expected to comply with. Failure to comply with them could result in fines and sanctions. As a result, firms that lack capacity in some way may require collaborations to able to meet the compliance standard.

**Decline in government efficacy:** this is another driver of interorganizational collaborations. Many governments are facing countless challenges in providing the needs of their citizens. As such every governments around the world even those in developed countries are failing to address the sustainability issues of their countries. As a result, firms that want to be sustainable are compelled to collaborate with their stakeholders including government agencies to enable them to fill the void the lack of action by governments.

**Motivations**
Organisations have different motivations for entering into certain collaborations. Gray and Stites (2013) identify four main motivations for interorganizational collaborations - legitimacy reasons, competency reasons, resource-related reasons and society-oriented motivations.

**Legitimacy reasons:** Gray and Stites (2013) argue that firms that want to increase their legitimacy “make the business case for sustainability partnerships to help them build a reputation, image and brand for social and environmental responsibility; attract and retain employees; and build the social licence to operate” (p. 32). In addition, firms can used collaborations to avoid confrontation from NGOs and civil society organisations.

**Competency reasons:** Gray and Stites (2013) posit that some businesses organisations collaborate because they want to benefit from the expertise and knowledge other organisations. This is the proactive approach. They have also identified a reactive perspective in which an organisation chooses to collaborate with other organisations because it wants to acquire competencies to address “complex social and environmental problems” (Gray & Stites, 2013, p. 33).
**Resource-related reasons:** Closely related to the above point, Gray and Stites (2013) assert that organisations use collaborations in acquiring unique resources for solving social and environmental problems. These resources come in the form of networks, capacity building, monetary and risk sharing.

**Society-oriented motivations:** Gray and Stites (2013) point out that a proactive way some organisations can influence government policy is through collaborations. In this way a firm which wants to minimise the effects of a legislation on its operations can collaborate in making the legislation. In other words, collaborations can serve as a response to stakeholder and shareholder activism regarding local problems. Another aspect of this type of motivation is an organisation’s desire to get the support and or backing of other stakeholders in their environment.

**Partners and partnership characteristics**
The characteristics of a potential partner influence the decision to collaborate or not. According to Gray and Stites (2013), the following are characteristics are essential when choosing a potential partner to collaborate - resource profile, organisation type, representation, cultural fit, power dynamics, previous partnership experience, time horizons, and partner reputation.

**Collaborations Process issues**
Some of the process factors that affect collaborations are exploring differences, creating a shared vision, agreeing on explicit norms and management processes, building trust, handling conflict, consensus-based decision making, devising accountability criteria, sharing power, ensuring representation and voice, and effective leadership (Gray & Stites, 2013).

**Collaborations Outcomes**
The results of previous collaborations affect future collaborations. Gray and Stites (2013) identify reputation, learning and innovation, process integration, accountability, and attention to sustainability as some of the factors of outcomes that affect collaborations. These outcomes in tend affect future decisions to collaborate or not. They also affect the decision to collaborate with which partner.

This chapter presents the theoretical and analytical framework. It highlights interorganisational collaborations and their models. It also presents Gray and Stites’ sustainability continuum and collaboration model.
3.0 Research Methodology

This chapter presents the methodology and methods of the study. It identifies the study approach as qualitative. It also presents the data collection and analysis methods. The next section presents the sampling technique used. This is followed by sections of validity and reliability, ethical considerations and study limitations.

This study is based on a qualitative case study research with an exploratory approach. The choice of this approach is based on our constructivist perspective on knowledge acquisition about the world. As researchers our ontology is rooted in the belief that the world is not separate from the human mind (6 & Bellamy, 2013). This ontological underpinning influences our epistemology in which case our approach to knowledge acquisition about the world (6 & Bellamy, 2013). Therefore, our ontological and epistemological underpinnings influence our choice of qualitative research methods to investigate collaborations between farmers and their stakeholders in southern Sweden. According to Auerbach and Silverstein (2003) “[q]ualitative research is research that involves analyzing and interpreting texts and interviews in order to discover meaningful patterns descriptive of a particular phenomenon” (p. 3). In other words, qualitative research mainly uses words in describing phenomenon unlike quantitative research which is predominantly based on figures (Creswell, 2014). The study as noted in earlier is exploratory based. According to Bhattacherjee (2012, p. 5) exploratory research approach is “conducted in new areas of inquiry, where the goals of the research are: (1) to scope out the magnitude or extent of a particular phenomenon, problem, or behavior, (2) to generate some initial ideas (or “hunches”) about that phenomenon, or (3) to test the feasibility of undertaking a more extensive study regarding that phenomenon.” To a large extent this study fulfils goal (1) and (2) of Bhattacherjee’s proposition since it aims to explore collaborations between farming enterprises in southern Sweden and their stakeholders and the factors that influence them as farms transition toward sustainability. This is a new area that has not been investigated. Therefore, our choice of exploratory design will enable us to identify the collaborations between farm managers and their partners and the factors that influence them using semi-structured interviews.

3.1 Methods of data collection

3.1.1 Semi-structured interview

Since the research is exploratory in nature, a qualitative research method of semi-structured interviews will be used. A researcher who use this type of interviews have “an interest in understanding experience of other people and the meaning they make of that experience” (Siedman, 2013, p. 9). Semi-structured interviews are based on well formulated fixed questions which are prompts, which enable the researcher to clarify topics. It is important to state that the pre-set questions are followed by probes, which are introspective and insightful follow-up questions, this allow interviewees to provide answers to the fixed questions while giving researchers the opportunity to enquire and bring out further information they deem important from interviewees (Morrison, 1993). Similarly, Bishop and Glynn (1999) observe that this type of data collection allows the development of additional insight on the topic under study and the building of knowledge through generative dialogue on the research topic. As such by using semi-structured interviews in this study, we aim to gather information from the farmers about the types collaboration they have, what motivate them to do these collaborations and the factors that sustain such collaborations. They will also give the farmers the opportunity to elaborate on their answers when they feel there is a need for that (Creswell, 2014). Some of the interviews
will be conducted at the farm whereas some of them will conducted at places that are convenient for the farmers. Nevertheless, semi-structured interviews come with a lot of advantages, Creswell (2014) observes that they can also be time consuming and expensive to undertake.

In order to collect relevant data for analysis from interviewees it is important to design an interview guide to serve as a signpost to the interviews. In this study the interview guide is formulated based on Gray and Stites’ (2013) work on collaborations which is the basis of our theoretical framework. The interview guide consists of open questions that start with ‘what’, ‘how’, and ‘why’, to allow the interviewees to provide extensive and detailed answers (see Appendix 1). In addition, a follow up probing questions were asked in order to bring out responses that are relevant to our research topic in instances interviewees do not provide enough information (Saunders, Lewis & Thornhill, 2009). Asking the farmers these questions enabled us to identify the types of collaborations they had in the past and have the present time. It also allowed us to identify the key drivers, motivations, partner and partnership characteristics and process issues which affect the outcomes of the collaboration. In total 8 interviews were conducted. Seven of the interviewees were farmers and one was a researcher at the Swedish University of Agriculture. The researcher was interviewed to allow for data triangulation which enhanced credibility of the analysis. It is important to add that all the interviews were based on a face to face mode. Also, considering the male-dominant nature of the agriculture sector the interviewees were conducted with male farmers even though we desired to get the perspectives of both males and females. Table 3 below is the list of participants.

<table>
<thead>
<tr>
<th>Name of interviewee</th>
<th>Position</th>
<th>Farm size</th>
<th>Farm type (commercial)</th>
<th>Interview mode</th>
<th>Language of interview</th>
<th>Interview date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee 1</td>
<td>Manager</td>
<td>Large-scale</td>
<td>Individual</td>
<td>Face to face</td>
<td>Swedish</td>
<td>04/05/2019</td>
</tr>
<tr>
<td>Interviewee 2</td>
<td>Owner and manager</td>
<td>Large-scale</td>
<td>Individual</td>
<td>Face to face</td>
<td>Swedish</td>
<td>09/05/2019</td>
</tr>
<tr>
<td>Interviewee 3</td>
<td>Owner and manager</td>
<td>Medium (20 hectares)</td>
<td>Individual</td>
<td>Face to face</td>
<td>English</td>
<td>12/05/2019</td>
</tr>
<tr>
<td>Interviewee 4</td>
<td>Owner and manager</td>
<td>Large-scale (340 hectares)</td>
<td>Individual</td>
<td>Face to face</td>
<td>English</td>
<td>14/05/2019</td>
</tr>
<tr>
<td>Interviewee 5</td>
<td>Manager</td>
<td>Large</td>
<td>Individual</td>
<td>Face to face</td>
<td>Swedish</td>
<td>16/05/2019</td>
</tr>
<tr>
<td>Interviewee 6</td>
<td>Manager</td>
<td>Large</td>
<td>Individual</td>
<td>Face to face</td>
<td>Swedish</td>
<td>17/05/2019</td>
</tr>
<tr>
<td>Interviewee 7</td>
<td>Owner and manager</td>
<td>Medium (20 hectares)</td>
<td>Family</td>
<td>Telephone</td>
<td>Swedish</td>
<td>28/05/2019</td>
</tr>
<tr>
<td>Interviewee 8</td>
<td>Researcher and facilitator</td>
<td>n/a</td>
<td>n/a</td>
<td>Face to face</td>
<td>English</td>
<td>29/05/2019</td>
</tr>
</tbody>
</table>
Note: Majority of the interviewees (farmers) are above 50 years and have primary and secondary education. One of them has university education from SLU.

### 3.1.2 Field observation

In order to gather relevant data to answer our research questions we adopt observation as a data collection method. Observation is commonly used by social science researchers in collecting data about their object or phenomenon of study. It has been used in collecting data in psychology, sociology, anthropology and studies in ethnography. According to Marshall and Rossman (1989, p. 79) “[o]bservation is the systematic description of the events, behaviors, and artifacts of a social setting (cited in Kawulich, 2012). Considering the ‘closed’ nature of farming enterprises in southern Sweden we find our access to the farms as an opportunity to use the method of observation to help us gather relevant information about how farming is done and the current state of farms in the region. Our observations were both overt and covert - depending on situation and setting. Kawulich (2012, p. 3) states that “covert observation occurs when those who are being observed are unaware that you are observing them.” We use covert observation to gather information about the farmers may have found critical and unwilling to give out, for example, information on unsustainable farming practices. On the other hand, an overt observation occurs “where the participants are aware of being observed, and you are not, in any way, hiding the fact that you are observing them for research purposes” (Kawulich, 2012, p. 3.). We use overt observation in collecting data the farmers do not have difficulty sharing with us. For instance, in the office of one of the farmers we find a pile of documents so we enquire about them and he said they were farm reports, manuals and newsletters related to agriculture. It is important to state that the observation enables us to ask questions that are pertinent and tailored to the context. In addition, by informing the farmers about our past farming experiences allows us to establish strong and relevant connections with them. This builds trust between us which helps us in our observations. In this regard, Kawulich (2012, p. 5) observes that observation “is helpful to allow [researchers] to understand the participants’ world by actively engaging in activities in which participants typically are involved”. In order to keep track of the observations we maintain a field notes in which we record observations we consider to be relevant to our study. Field notes keep record of what is observed such as setting, location, participants, activities, verbal and nonverbal behaviours (Kawulich, 2012).

### 3.2 Method of data analysis

The qualitative data gathered from the interviews and observations will be analysed manually with a focus on identifying patterns within the data. The data analysis is conducted by using the process proposed by Creswell (2014). He proposes six steps to analysing qualitative data. As noted earlier we aim to follow these steps in analysing the data gathered. First, we transcribe the interviews to allow for easy analysis. Second, we prepare the interview data and the field notes. Third, we read the data thoroughly to get general sense of the information in relation to the purpose of the study. Fourth, we code the data into themes based on the theories and models that guide the study. Fifth, we interrelate these themes and see how they fit in our theoretical model. This enables us to generate descriptions of the views of the farmers and the interview settings. Creswell (2014, p. 249) observes that this type of descriptions “appear as major findings in qualitative studies”. Finally, we interpret the themes and descriptions in order to make meaning out of them. In other words, the interpretation enables us to understand our phenomenon of study - collaborations between farm enterprises and their partners in southern Sweden. Specifically, it enables us to identify the types of collaborations between farmers and their partners in the region and the factors that enable and sustain those collaborations. Most
importantly, it affords us the opportunity to reflect and account for the lessons learned in our discussion. This is important because as researchers we both have farming experiences from different countries. As such the discussion stems from our observations from the farms as we engage the farmers and reflections on our personal knowledge of agriculture in other parts of world.

3.3 Selection and sampling of interviewees

To accomplish the data collection gathered in semi-structured interviews, the authors have to select and sample the interviews in a certain way. The authors of this thesis will use purposive sampling in the research which describes the process of selecting participants based on their relevance to the investigated topic (Gibson & Brown, 2009). According to foregoing, the participants will be farmers and farming companies’ managers whose businesses are mainly in the southern of Sweden. Our aim is to select possible research participants because they possess the knowledge about the nature of collaboration which is our research topic. The sampling frame will cover a number of farmers of small, medium and large-scale farmers. We will not specify a number of the interviews rather stop doing interviews whenever the collecting data from the interviewees reveals any new property according to the idea of saturation (Charmaz, 2006).

3.4 Validity and reliability

In the course of collecting and analysing data from the semi-structured interviews, the authors of this thesis were aware about the possible bias and therefore, the authors have set the interview guide and the pre-formulated main questions that allowed the interviewees to be aware about their answers to these questions (Creswell, 2014). Moreover, the two researchers made double check on the recording, transcription, coding and analysing of the interviews to ensure the validity of the qualitative research. According to Silverman et.al. (2014), reliability refers to the degree of the study findings are independent of bias or distortion of any reason during the process of their production. Therefore, the authors of thesis have employed certain procedures to ensure reliability. Firstly, a detailed outline and a theoretical framework where the collected data will be gathered and measured according to this model. Secondly, the use of multiple methods of data collection and analysis. Thirdly, the transparency of the methods of data collection and analysis procedures which will give the reader credibility of the study findings.

3.5 Ethical considerations

As indicated above, this study uses semi structured interviews in gathering data for analysis. In recent years, ethical considerations have become an important part of the research process (Creswell, 2014). To ensure relevant data is collected and credible analysis is conducted, we anticipate the occurrence of some ethical issues in the research process. According to Creswell (2014) there are several ethical issues social science researchers need to consider when they are designing a study. Several issues relating to ethics occur before, during and after the research process. In this study we identify and propose measures to four fundamental ethical issues (consent, confidentiality, privacy, and disclosure/objectivity). First, prior to the research, we seek the consent of the farmers to interview them and access/go into their farms in the case of those we met in their farms. This is in line with Creswell’s (2014) recommendation that researchers should “Gain local permission from site and participants” (p. 132). In addition, objectivity and disclosure are important ethical considerations which every researcher must
pay close attention to (Creswell, 2014). As such to ensure that we were objective to our respondents, before each interview we explained the purpose of the study and how the data was going to be used. This enabled them to be fully aware of the type of study they were participating in and how the purpose of the data collection. Moreover, we assure the respondents of our commitment to keeping their identity secret and anonymous in this case third persons cannot identify who we interviewed (Creswell, 2014). Lastly, we also indicate our commitment to protecting the data we collect about the respondents. Thus, the data will not be shared with anyone for any purpose other than the reasons for which it was collected. This is important because it will enable us to “avoid disclosing information that would harm participants” (Creswell, 2014, p. 133).

3.6 Limitations and delimitations

In the pace of this research some constraints faced the researchers which contribute to study limitation. First, due to the limited time to carry out this research, the authors managed to arrange interviews with eight participants which might not considered as a sample to represent the farmers in the southern Sweden. However, this limitation is not affecting the quality of our research due to the fact that the interviewees’ answers were somehow recurrent and for this reason more interviews would not reveal any new property and thereby the researchers considered the number of interviews is sufficient according to the idea of saturation (Charmaz, 2006). Second, the fact that the interviews were conducted in a second language whether for the interviewees who were Swedes when they spoke in English or for the interviewer when he spoke in Swedish or English despite being mastering the Swedish language and the English language as well, but those are not his mother tongue language which may have had impact on the interview quality. Finally, using data from the literature would have helped in making a foundation for understanding the topic but there is limited research on the farmers collaboration in southern Sweden, and this gap in literature on the research topic may have had impact on the research. Therefore, the researchers have chosen the exploratory approach in their research. This limitation carries opportunity for further research as this research might be a solid ground for the coming research on this topic.
4.0 Analysis and presentation of findings

This chapter presents an analysis of the collected data from the interviews and field observations. It is organised into two main sections - collaboration types towards sustainability and key factors of collaborations. The latter section is further divided into five sections - drivers, motivations, partner characteristics, process and outcomes - each of which contains descriptions of the factors that influence collaborations in southern Sweden. The identification and description of the factors is based on the theories and models presented in chapter two - most especially the work of Gray and Stites (2013).

4.1 Collaboration types toward sustainability

The first part of this section elicits farmers’ understanding of the following the key concepts - sustainability and sustainable agriculture. Their knowledge of these concepts was examined because they can only collaborate toward something they know and desire to achieve. The second section seeks to identity the different types of collaborations that exist between farmers in southern Sweden and their partners as their farms transition from traditional agricultural practices to new and sustainable practices.

4.1.1 Sustainability and sustainable agricultural practices from the farmers’ perspective

Since collaborations toward sustainability is the central theme of our study, we find it important to ask the farmers about their understanding of sustainability. We also seek to elicit their views on what a sustainable farm is about. Only a few of them demonstrate good knowledge of sustainability and sustainable agricultural practices whereas majority of them show little understanding of the concepts. The responses they provide range from good knowledge to complete lack of knowledge. For example, when ask about his understanding of sustainability, interviewee 5, a 45-year old commercial farmer who also owns a business school seems to know much about sustainability states that “it is about the efficiency in production, we should not use more power than we really need, we should not spray pesticides than it is needed. We should minimize using the tractor and minimize consuming diesel. We should not execute any unnecessary work and here we can find that it is fantastic how sustainability and economy are coupled together” (Interviewee 5, 16/05/2019). His understanding of sustainability in agriculture is very high as he is able to point out the harmful effects of spraying too much of pesticides on the crops and soil. Similarly, the response to the same by interviewee 2 shows he has good understanding of sustainability from the perspective of agriculture. He owns about 1000 hectares vegetable farm, produce seeds for other farmers and keeps close to 300 cows. He has over 40 years farming experience. Considering his vast experience in agriculture he seems to know so much about sustainable agricultural practices as he points out “In my business I try to produce as much as possible good quality and produce large quantities using the possible minimum amount of the material or resources taking into consideration the production effect on the environment and use the exact needed amount of the chemicals, in the past the usage of chemicals was periodical and not based on the need of every single case” (Interviewee 2, 9/05/2019). It is clear that this farmer has good understanding of sustainable agricultural practices and the impact the adoption of such practices will have on his farm.

Even though some of the farmers in southern Sweden demonstrate good knowledge of sustainability and sustainable agricultural practices as shown above some of them are not familiar with the concepts. For instance, when interview 3 was asked about his understanding
of sustainability and sustainable farm his answer suggest he did not know about them. He says that “I don’t know what you mean”. This was after several examples of sustainable agricultural practices were given. Unlike Interviewee 2 and Interviewer 5 who have large farmlands and several decades of experience working on the farms, Interviewer 3 is a young farm owner who only started his farm enterprises 10 years ago. He owns 20 hectares of grass farm and 10 cows. From our observation we could see that he feels his farm is very small and therefore he does not need to adopt expensive and sustainable agricultural practices which large farmers implement on their farms. This can partly explain his lack knowledge of sustainable agricultural practices. In addition, Interviewee 1 who is a trained machine technician and has been farming since 1979 did not show very good understanding of sustainability or what a sustainable farm is. In his response to what he knows about sustainability he mentions that “...we try to do our best in this regard we try to work as much as possible to be sustainable for the community …” (Interviewee 1, 4/05/2019). Also, his response to what he considers to be a sustainable farm was “I do not know what to say… we try to produce good things for the society and we try to minimize the usage of pesticides as much as possible” (Interviewee 1, 4/05/2019). Interviewer 3 who equate sustainable farming to the production of quality farm products. Furthermore, Interview 7 also expresses lack of understanding of sustainable agriculture. However, it is undeniable that almost all the interviewees even though at the beginning some of them show complete lack of knowledge about sustainable farm practices when they are engaged for some time they are able to give examples of practices that are good or harmful to the environment, soil and crops.

4.1.2 Collaboration types

According to the model by Gray and Stites (see chapter 2), there are different types of collaborations organisations can form in their quest to be sustainable. Based on the sustainable continuum which consists of reactive, transactional phase, integrative phase and transformative phase. Collaborations that fall under the reactive phases are not sustainability-oriented but are profit-oriented whereas collaborations under the transformative phases are highly sustainability-oriented. Our interviews with the farmers in southern Sweden show that majority of the collaborations that exist between farming enterprises in the region and their partners are not sustainability-oriented it may seem. Even though some of the collaborations have long-term perspectives and aim to improve agricultural production they are less focus on sustainability.

This section tries to answer research question one (RQ1):

*What types of collaborations exist between and amongst farming companies in southern Sweden and their stakeholders?*

The following are the collaboration types we identified from the interviews.

**Sustained dyadic collaborations**

According to Gray and Stites (2013) sustained dyadic partnerships are collaborations existing between two organisations where one of the organisations seeks the help of the other organisation to address a particular issue, problem or challenge. This form of collaboration falls under the transactional phase of the sustainability continuum and usually takes a prolonged period of time. Sustained collaborations are mostly used in addressing organisational challenges or meeting the operational needs of organisations over a period of time. In our
attempt to find out the types of collaborations farmers in southern Sweden have we asked them whether they collaborate with other organisations or other farmers. All of them answered in the affirmative. This was followed by a question about the types of collaborations they had in the past or present. Almost all of them indicated that they collaborate with private companies that sell seeds, fertiliser, weedicides and pesticides. Some farmers have contracts or agreements with these private companies to supply them the aforementioned farm inputs and agronomic advice on a yearly basis depending on the prevailing market conditions. For instance, when Interviewee 2 was asked whether he collaborates with private companies to increase productivity of his farm, he answered saying that “I collaborate with a local company that sells seeds which I buy, and I may ask my neighbour if he needs some of the seeds so I can swap it in return of another stuff” (Interviewee 2, 9/05/2019). He had an interesting justification for collaborating with his stakeholders. He argued that his company needs to collaborate with others “... because we live on one earth”. His reason for collaboration is in line with the observation that organisations are open systems which are affected by happenings in their external environment (Tolbert & Hall, 2011; Werther & Chandler, 2014). This situation makes interorganisational collaborations inevitable if organisations must survive in their environments. On his part Interviewee 1 indicated that his company collaborate with a private company to buy grain seeds and chemicals. He stated the purpose of his collaboration with the private company is about “purchasing [...] biofertilizers, biogas, seeds, [and] consultancy about mainly the usage of pesticides” (Interviewee 1, 4/05/2019). For personal reasons he preferred not to mention the name of the company in question. Similarly, Interviewee 4 also mentioned that he collaborates with a private company from which he buys fertiliser and weedicides for his farm. He adds that he purchases a manual from the private company which contains recommendations on how to apply the fertiliser and weed killers on his farm. He buys chemicals from the same company and receive their recommendation on best agricultural practices. The farmers added that the recommendations they receive from private companies are just guides and they reserve the right to apply the chemical according to their own measurements. Almost all the farmers expressed satisfaction with their sustained collaboration except a few.

**Long-term collaborations**

Apart from sustained collaborations we also find collaborations that have longer term perspectives and involve many stakeholders. This group of collaborations can be categorised into two - formal and informal. The formal long-term collaborations take the form of partnerships existing among many stakeholders (farmers) whose relationships are defined by binding agreements or contracts. On the other hand, the informal long-term collaborations come in the form of groups of farmers or farm enterprises who agree without binding agreements to work together in addressing a common problem on their farms or share their experiences and knowledge with the objective to improving their farm productivity. With regard to the formal long-term collaborations majority of the farmers mentioned that they collaborate with farmers’ cooperative organisations and agro-based consultancy organisations. For example, Interviewee 5 states that “We buy a lot of stuff from Lantmännen and we get consultancy from LRF. We have an agreement with them to provide us with the consultancy needed in our practices and we meet them mainly twice a year and when there is a need to meet” (16/05/2019). Lantmännen is a farmers’ cooperative organisation across Northern Europe. The cooperative offers important agricultural sector services such machinery, bioenergy and food. In Sweden over 25000 farmers were members of the cooperative (Lantmännen, 2015). As such Interviewee 5 is one of them and he buys the services and products of the organisation. On the other hand, some of the farmers like Interviewee 5 indicate also that they collaborate with Lantbrukarnas Riksforbund (LRF). LRF is a non-partisan and
entrepreneurial organisation whose membership cuts across the green industries including stakeholders in the agriculture sector (LRF, 2018). Just like Interviewee 5 many of the farmers receive consultancy services from LRF on how they can improve their farms, increase productivity and profitability using best agricultural practices. On the part of Interviewee 4, he notes that he collaborates with Lantmännien in improving practices on his farm. Interviewee 3 also mentioned Lantmännien as an important partner in his 10-year farming journey.

On the other hand, we find that majority of the farmers also collaborate with their colleague farmers in the region. This type of collaborations is informal and is not legally binding on the collaborating partners. Some of these collaborations are in the form of groups where the farmers meet on a regular basis to discuss and share their farming experiences. The main purpose of the informal collaborations was to bring neighbouring farmers together to share expertise, experiences and resources with the objective to address the challenges they encounter on their farms. Some of these farmer groups have been existing for a very long period of time. For example, Interviewee 2 is a member of a farmer group which was formed more than two decades to deal with the problem of drought in their farming community. He recounted that “25 years ago there was a drought, and we formed a group, or you can call it union to tackle the situation and the result was very effective. I as all the group members [were] very satisfied with this collaboration and the results. This group is active until today” (Interviewee 2, 9/05/2019). Membership of this group enhances the members' social acceptance and legitimacy which Gray and Stites (2013) observe to be key motivations for collaborating in certain situations. Interviewee 3 also mentions that he belongs to a farmer group which members meet about 20 times each year. In their meetings, they discuss best agricultural practices and how they can deal with the effects of climate change on their farm. He adds that climate change is a common problem farmers in southern Sweden are facing. He described it as if all farmers are sitting in a boat and that is sinking. He observed that the only way out for them is to cooperate in addressing the effects of climate change on their farms.

4.2 Key factors of collaboration

Several factors drive interorganisational collaborations in the agriculture sector of southern Sweden. Some of the factors are external in nature whereas others are driven by internal influences. In the context of this study, the externally-driven factors are termed ‘enablers’ of collaborations and the internally-induced factors - process issues and outcomes as ‘sustainers’ of collaborations. The enablers are factors that trigger the interests to collaborate. On the other hand, the sustainers are factors that make collaborations to succeed and last for a specified period of time.

This section answers research question two (RQ2):

What are the key factors that enable and sustain the collaborations?

It starts with the enablers - external drivers which is followed by the sustainers - motivations, partners and partnership characteristics, process issues and collaboration outcomes.
Enablers

4.2.1 External drivers

As noted above, some of the collaborations that exist between and among farming companies and their partners in southern Sweden are influenced largely by external factors. These factors are mainly out of the farmers’ control and are usually imposed on them by forces of globalisation, government’s regulations or nature. The main enablers of collaborations in the sectors are illustrated below.

Climate change

Climate change has been recognised as one of the greatest challenges of this century. The need to combat the phenomenon is clearly articulated in SDG 13 - Climate Action (UN, 2015). It has become common knowledge that climate change is affecting every sphere of our societies. The agricultural sector in southern Sweden is not an exception as climate change has become a major challenge to their sustainability, productivity and profitability. It is heart-warming to note that the farmers perceive climate change as a common problem which they must tackle together. For example, Interviewee 3 states that “I collaborate because of climate change. It is the next problem for us, and we must fix it. We must use new rules to go around it” (12/05/2019). He adds that the farmer-group he belongs - a group of neighbouring farmers - meet each month to share ideas and experiences on how to address their farming challenges including climate change. Likewise, Interviewee 2 also stated that “I have witnessed the climate change, so yes, we have to care about the environment with every single action we do” (/9/05/2019). Furthermore, Interviewee 5 acknowledges the adverse effects of climate change on his farm. He stated that “I’m worried about climate change” and asked rhetorically “What can I do to make less the impact?” (Interviewee 5, 16/05/2019). The rhetorical question he posed clearly shows the extent to which some of the farmers want to go in order to adapt and mitigate the impact of climate change on their crops and animals. One of the effects of climate change is drought - the lack of rain which negatively affects agricultural production including but not limited to crops, grass and animals. In this regard, Interviewee 2 recalls how drought occurred in his farming community in the late 1990s and how they (farmers) formed a farmers’ group which enabled them to adapt and mitigate the impact of the droughts. He notes that the farmers’ group was very successful. Similarly, Interviewee 1 also recounts the extent to which droughts impacted their farm in 2018. Interviewee 4 also bemoans the impact of climate change on his farm. In addition, interviewee 6 affirms the importance of collaboration with other farmers that enables them to stand the drought “We have procedure to keep us in the safe side, and the government has nothing to do with that. It is actually myself and other farmers who collaborate to be ready to face such situation, and we made it” (Interview 6, 17/05/2019). It is apparent that climate change and its effects serve as threats to the sustainability, productivity and profitability of farms in southern Sweden. This is why the farmers collaborate in order to adapt and mitigate the effects of the phenomenon.

Legislations and regulations

Among the external drivers of collaborations between and among the farming companies and their partners was legislation or regulation. The health of people is largely dependent on their food. As such legislation is needed in the agricultural sector to ensure that food products are produced under the required environments and meet the minimum quality standards. Some of the agricultural sector regulations require much more than one farming company can meet. This makes collaborations between and among farming companies and their stakeholders necessary since they must fulfil the requirements if they want to continue to do business. For
example, Interviewee 4 mentions that agricultural sector regulations mainly come from the EU and the Swedish government but not the [sic] Kommun (14/05/2019). Interviewee 5 further observes that the Swedish regulations on agriculture are stricter than regulations in other EU countries. He suggests that “[t]he EU should issue regulation and make sure that all the European countries comply to [sic] these regulations especially when it comes to the usage of chemicals and other agricultural practices” (Interviewee 5, 16/05/2019). In the same way, Interviewee 2 states that “In Sweden an animal should live in a specified minimum area which is regulated by the government which is not the case in other European countries. We in Sweden fulfil the best conditions to get the best products whether it is meat or vegetables or whatever. So, we should collaborate to work together to regulate the standards which guarantee a good quality in Europe and all over the world if possible.” (Interviewee 2, 9/05/2019). Interviewee 5 further observes how EU and Swedish regulations affect the profitability of farms in Sweden. In this light, he states that “[t]he profitability of this business is not that good. There is a big impact by the EU and even the Swedish governmental institutions which always chase us with new regulations and control” (Interviewee 5, 16/05/2019). It was clear from his disposition that he was unhappy with the situation thus he requested for a fairer regulatory institution. This view was also echoed by Interviewee 3 who appeared unhappy about the discriminatory nature of the regulations among EU member countries. Therefore, he also called for a change in the status quo to enable farmers in all EU member countries to comply with the same standards regulating all aspects of agricultural practices. Even though the intended consequence of regulations is the protection of food consumers it can be seen from the illustrations here that the unintended consequences on farms and farmers are dire as farmers in southern Sweden struggle to meet them. In sum, the desire to meet the regulations and to minimise the unintended consequence on their farms have led the farmers into collaborating with other stakeholders.

**Concerns about globalisation**

The world is more interconnected than before. It has been described as a global village. This means the occurrence of events in part of the world has implications in around the world. A common example of globalisation can be said of how a change in the prices of oil in the international market affect petroleum prices in different countries. Just as shown in the aforementioned example, globalisation also impacts agricultural production in southern Sweden. Some of the farmers were concerned about the impact of globalisation on their production costs and product prices. For instance, Interviewee 3 bemoans how cheap and low-quality agricultural products such as meat are imported from other countries with low labour costs into Sweden to compete with their quality products (Field notes, 12/05/2019). He also bemoans the expensive nature of everything except farm products. He opined that “[m]achine is expensive, land rates go up and farm wages go up and the farmer stays back. Everyone wants more and we not getting up [-] milk prices too low” (Interviewee 3, 12/05/2019). In addition, Interviewee 5 raises concerns about the impact of energy and fuel prices on his production costs. He indicates that changes in prices of crude oil in the international market affect how much fuel he buys when cultivating his farms. He owns about 250 hectares which means a little upward adjustment of fuel prices will have a bigger effect on his total production costs. The farmers have recognised the impact of globalisation on their farming operations and profitability and therefore seek to address it through collaborations. This was clearly articulated by Interviewee 2 when he disclosed that “We collaborate with an organisation which help us to manage the governmental issues on the political aspect because we face a problem in Sweden. We sell our products to this open EU market but in Sweden, there [are] different regulations than that in other European countries, for example, Spain” (Interviewee 2, 9/05/2019). In sum, it can be observed that globalisation has negative effects on farms and
farming companies in southern Sweden. This is what makes farm managers in the region to enter into partnerships with different organisations as a way to reduce the impact of the phenomenon.

### 4.2.2 Motivations

Internally induced motivations play important role in interorganisational collaborations. As Tolbert and Hall (2011) state, organisations operate in turbulent environments which means for organisations to succeed they must overcome the challenges in their environments. Many farming companies as seen in the sections above rely on collaborations to overcome their challenges. As we asked farmers in southern Sweden about their motivations for collaborating it was apparent that their desire to obtain expert advice, economic/financial benefits and societal acceptance were the main reasons for their collaborations. The sections below highlights each of these factors.

**Competency reasons**

The common motivation for collaborations between and among farming companies in southern Sweden and their partners to benefit from the knowledge and skills of their partners. As shown in section 1.3 farmers in Sweden are facing different types of challenges. To address these challenges, require diverse knowledge and skills. Many of the farmers mention competency reasons for initiating and or joining collaborations. For example, when Interviewee 2 was asked whether his company collaborate to get competent hands on his farm he answered in the affirmative. In addition, Interviewee 3 answers in the same way. He mentions that he collaborates with Lantmannen and a chemical selling company to get expertise and agronomic services. He adds that “They [Lantmannen and the chemical selling company] give us recommendations. They come and we discuss and go to the field and looking how much plants and if we need more chemical” (Interviewee 3, 12/05/2019). Interviewee 3 does not have much experience as compared to other farmers we interviewed as such we observed that he is more appreciative of the services he receives from Lantmannen and the private company (Field notes, 12/05/2019). Moreover, Interviewee 4 adds that he collaborates to get expert advice on how to manage his farm. He mentions that certain decisions regarding planning crop fields require high level expertise which he does not possess. As a result, he collaborates with Hushallningssallskapet which assists him in planning his crop fields every year. We observe in his crowded office a pile of past crop and field plans, agricultural sector reports and newsletters (Field notes, 14/05/2019). He values his collaboration with Hushallningssallskapet because even though he has been farming for more than 35 years he is not able to plan his 370-hectare farm all by himself. As a result, he finds the services from Hushallningssallskapet as very essential. Lastly, Interviewee 6 also indicates that “we collaborate with a consultant in Halland and he [consultant] advices us [on] how to look after the cows to get best results” (17/05/2019).

Interviewee 7 also indicates that he sometimes collaborates to get competent human resources to advise him on some aspects of managing his farm. Therefore, it can be seen that the main motivator for farmer collaborations in the region is competency related.

**Resource-related reasons**

Related to the competency reasons for collaborating are collaborations for resource-related reasons. Some of the resources organisations collaborate to obtain in their environments come in the form of networks, capacity building, monetary and risk sharing (Gray & Stites, 2013). When asked about the purpose of their collaborations some of the farmers mentions that some of the collaborations are intended to help them acquire relevant resources to solve their farming challenges or share a farm machine. For example, the answer of Interviewee 2 was particularly
informative as he notes "Yes, to some extent [collaborate to obtain resources]. I have a farm which is far away from here and there I collaborate with a neighbour to exchange the machines he has which I do not have. I have a machine that is used only 14 days a year, so it is efficient to exchange the service with each other. And vice versa" (9/05/2019). This shows the extent with which Interview 2 and his neighbouring farmers cooperate in sharing their farm machines and equipment. Throughout the interview it was clear Interviewee 3 was very sensitive to prices of farm machines, fertilisers and weed killers. In this regard, the following is illustrative “Machine is expensive, land rates go up and farm wages go up and the farmer stay back. Everyone wants more and we not getting up milk prices too low” (Interviewee 3, 12/05/2019). To some extent his characteristics as inexperienced and medium-sized farmer can explain this situation. As a price sensitive individual, Interviewee 3 is very much interested in obtaining financial resources and or sharing resources with his partners. In his neighbourhood he assists about 20 farmers every year by sharing or renting out his machine to them. He mentions that “I have [a] machine to help other farmers” (Interviewee 3, 12/05/2019). In the similar way, Interviewee 4 states that he collaborates because he wants to make an economic gain. He indicates that “the main reason is economical. Of course, because my farm enterprise must survive. This is the most important reason [for my collaboration]” (Interviewee 4, 14/05/2019). As our interaction with him proceeds it was clear that he was very particular about the economic viability of his farm. Interviewees 1 and 6 also mention economic reasons as their motivations for collaborating with certain partners. In conclusion, it is clear from the illustrations here that some of the farmers in southern Sweden collaborate to obtained economic resources, financial benefits and share resources.

Society-related reasons
Many of the farmers recognise the importance of getting the support of their colleague farmers. They build relationships with each other through collaborations. Asked whether his collaborations are aimed at getting societal acceptance, Interviewee 3 indicates that “Yea we [farmers] are all sitting in the same boat and this boat is sinking. We must help each other” (12/05/2019). He feels that the farming community in southern Sweden are confronted with the same challenges ranging from high prices of farm machines, fertiliser and chemicals to low prices of agricultural products, so it is in their interest to work together in finding solutions to them. As such he proposes that “... we must cooperate and help each other and grow up together” (Interviewee 3, 12/05/2019). For him collaborations among farmers are important to ensuring that long-lasting relationships are established between and among them. Interviewee 4 concurs with the views of Interviewee 3 when he states that “Yes, it [social acceptance] is important for me” (14/05/2019). He reveals further that “we [his farmer-group members] have [a] meeting this evening we meet every month 20 [of us]. And of course, if we talk about social acceptance it is important for me to get what I’m doing to get accepted by them [fellow farmers]. Because when you are a farmer everyone who is driving his car or truck [by] can see what I’m doing” (Interviewee 4, 14/05/2019). It is interesting to witness one his colleague farmers called him and told him he had seen someone on his farm who he didn’t know (Field notes, 14/05/2019). Having other farmers in the same neighbourhood as a source of support or assistance is one of their main motivations for collaborating. Likewise, Interviewee 2 states societal legitimacy as a one of the reasons his company collaborate. He notes that “social acceptance is the outcome of what we do” (9/05/2019). All in all, the desire to be accepted into a community of farmers and to receive the support of other farmers drive some of the farmers into collaborating.
4.2.3 Partners and partnership characteristics

Reputation, expertise and quality
Certain characteristics of partners and partnerships are important for partner selection and partnership design (Gray & Stites, 2013). Farmers interest in their partners’ characteristics vary differently, some of them rate quality over reputation, others rate trust over expertise. Nevertheless, reputation has an enormous weight for the farmers when choosing their partners as we can see majority of the interviewees attached importance to this attribute when they think about choosing potential partners. Partner’s reputation is considered as a credit, but this feature is sometimes intersected with “good quality” and “expertise” attributes as in the case of interviewee 6. He mentions the importance of good quality and competence and he prefers them to reputation. He indicates that “well, the most important is the partner’s competence and if he is well known that he is good and experienced then I collaborate with him. So yeah, his reputation is important but if it shows that he does work of bad quality, so I stop collaborating with him and choose another one.” (Interview 6, 17/05/2019). This shows that this farmer does not priority reputation and he always sceptic and focus on the good quality. He considers that reputation is not a credit of good quality unlike other farmers. There is possibility that he had bad experience with a partner who had good reputation and did deliver bad quality service or product. However, others rate good prices as important characteristic for the potential partner as in the case of interviewee 5, “The price issue is important, and their reputation is important. It is important that this partner who has good prices exists in the market” (Interviewee 5, 16/05/2019). He considers the existence of the partner who offer good prices is important for the market and for this business as he priorities this feature over reputation.

Trust and capacity
Nevertheless, interviewee 1 considers quality and reputation are the two features that are important for collaboration but when we asked him directly “What do you think of before collaborating?” he answered briefly and without hesitation “Trust is the most important”, which shows the power of trust that results from experience and commitment, (Interview 1, 04/05/2019). Trust requires time and commitment between organisations that directly and indirectly affect the performance and the collaboration’s outcomes (Cote et al., 2006). We can see in the case of interviewee 2, who has around 40 years of experience in the agrobusiness, he considers that the partner should provide good quality and be capable to deliver the services expected by other partners but he summarizes the main features of the potential partner in being trustful and conduct friendly relations “Quality and capacity which give good outcome in addition to the people I am dealing with, -trustful and friendly”, (Interview 2, 09/05/2019).

Sustainers

4.2.4 Process Issues
As shown above farmers take several factors (external drivers and internal motivations) into consideration when initiating collaborations. The initiation of collaborations is as important as maintaining and sustaining good collaborative relationships. Even though the drivers and motivations are necessary factors they are not sufficient factors in sustaining collaborations. As such the following factors are identified as crucial in sustaining collaborations between and among farmers and their partners in southern Sweden.

Trust building
Trust building between and among collaborating partners is one of the important factors that sustain farmers’ collaborations in southern Sweden. To a large extent some of the farmers
attribute the success of their collaborations to the trust between and among their partners. In responding to a question on what factors help in sustaining his last collaboration, Interviewee 1 observes that “trust is the most important” factor in the sustenance of the collaboration (4/05/2019). Responding to the same question, Interviewee 2 mentions trust as one of the most important factors that sustain his collaborations. Interviewee 6 also indicates that he prefers partners who honour their words and contracts (see next section for details). Furthermore, trust is an important consideration for Interviewee 3 when he considers maintaining a collaborative relationship. He believes that collaborating partners must be truthful to one another to enable them to maximize their collaborations. He makes an interesting observation that “If you go to a new company every year they are not happy and they do not want to help. If they know you won’t come back next year you won’t get good help” (Interviewee 3, 12/05/2019). This shows that farmers who want to maintain and sustain good collaborative relationships with these companies must be committed and trustworthy - the farmers need to show commitment in order to receive good agronomic services from them. Also, we observe that Interviewee 4 prefers collaborations that are characterised by trust among the partners. He indicates that he prefers working with companies that are trustworthy - companies he can rely on to deliver on their promises. In sum, it is clear that building trust between and among collaborating partners is essential for the sustenance of collaborations.

Transparency
Some of the farmers reports transparency as another important factor that sustain their collaborations. Transparent relationship between and among collaborating partners is important for many reasons. A transparent relationship leads to building trust. It also ensures that partners in a collaboration are able to share their experiences and expertise among themselves without fearing of being victimised or judged. In other words, transparent relationships encourage farmers and their partners to free share their experiences with one another. From the perspective of Interviewee 2 transparency is an essential factor that contributes significantly to the success of his collaborations. In a similar way, Interviewee 6 considers transparency between him and his partners as very important to the sustenance of any collaborative relationships. He argues that “If I collaborate with a partner for example if he comes to do some work in my farm and I know how long time it will take, but if it took longer time then I will be unsatisfied and I [won’t] collaborate with him anymore. We are few in this farm and have a lot to do, so I cannot accept bad results” (Interviewee 6, 17/05/2019). What we seek to highlight here is not necessarily the results of his collaborations but the processes that lead to the results. Interacting with Interviewee 6 it was clear that he prefers partners who honour their contracts to the fullest and deviations and underperformance will not be entertained. Therefore, it can be seen that Interviewees 2 and 6 place priority on sustaining agricultural sector collaborations in southern Sweden.

Good relations and cooperation
It is no doubt that good relationships and cooperation between and among partners is important to the success of collaborations. Some of the farmers in southern Sweden reports that good relations are critical to sustaining their collaborations. For example, with regards to his collaboration with a consultancy company Interviewee 5 indicates that “when I think about the consultancy company it is important that the relationship is good, and the production is good as expected according to his advice. So, we evaluate the process and if it is good, so we continue our collaboration” (16/05/2019). In other words, Interviewee 5 prefers to work with the consultancy company because he had good relationships with them. With regards to Interviewee 6, it is the help and cooperation he receives from his partner sustain their collaboration. He mentions that “it is the machines that this partner has [...] so I collaborate
with some partner who has machines which I do not have, or he can do things better than I can do. It is always to get the best for the farm” (Interviewee 6, 17/06/2019). For interviewee 6 it is important for him to get competent partner who shares his or her expertise, skills and farm machines with him. He considers this as very critical to the success of his collaborations. Just like communities of practice some of the farmers find the development of good relationships and being cooperative as essential ingredients in sustaining their collaborations. Moreover, Interviewee 3 also considers good relations as important for the sustenance of collaborations. He observes that his collaboration with the company he buys fertilisers and weedicides is sustained because the owner is “a neighbour and we have good discussions and he helps farmers” (Interviewee 3, 12/05/2019). The findings presented here show that good relationships and being cooperative are important factors that sustain collaborations between and among farming companies and their partners in southern Sweden.

Shared vision
Shared vision between and among collaborative partners is recognised as important to sustaining collaborations (Gray & Stites, 2013). Shared vision refers to a situation where different partners in a collaboration find a common ground upon which they agree to work together to achieve a common goal. Interviewee 1 mentions shared vision as one of his reasons for collaborating. In the same vein, Interviewee 2 concurs with the view of Interviewee 1 and observes that “All of us should understand that we all live in the same earth. We should collaborate in order to live and let the next generations live. We should have a common goal” (Interviewee 2, 9/05/2019). He believes that when collaborating partners share similar goals it goes a long way to sustain the collaboration. Finally, shared vision is critical for the sustenance of collaborations in the agricultural sector of southern Sweden.

4.2.5 Collaboration outcomes

Outcomes of are the results collaborating partners could not achieve on their own. Every collaboration has a purpose and partners are expected to contribute towards their achievement. There are different types of collaboration outcomes. Whereas some outcomes are expected, others are unexpected (Gray & Stites, 2013). Depending on a partner’s satisfaction with collaboration outcomes they could continue collaborating or end the collaboration. Considering the importance of outcomes to the sustenance of collaborations, we ask the farmers about their collaboration outcomes and whether they are satisfied with them.

Satisfaction with outcomes
Many of the farmers indicate their satisfaction with outcomes of their collaborations. According to Interviewee 1 “it is very important if the outcome is satisfactory otherwise, we choose another partner to collaborate with” (4/05/2019). Similarly, Interviewee 2 answers in the affirmative about his satisfaction of one of his collaborations. He states that “all the group members are very satisfied with this collaboration and the results” (9/05/2019). According to Interviewee 4 he is “very very much” satisfied with his current collaborations (14/05/2019). In the same way, Interviewee 6 indicates that he is satisfied with his current collaborations and will not hesitate to change partners when he is not getting satisfactory results out of his collaborations. He states that “I cannot accept bad results” (17/05/2019). On the other hand, one of the farmers recount his bad collaboration experience. For example, Interviewee 5 reveals how he terminates a collaboration due to poor performance of the partner. He narrates that “Once I had a collaboration with a company which was not accurate with the dates of the delivery, and this happened many times and if a damaged takes place to the goods they try to blame the customer and not take their responsibility and that was bad and I finished the
collaboration with this company and changed to another one. The partner should stand for his partner and takes his responsibilities” (16/05/2019). However, he expresses satisfaction with outcomes of his current collaborations. As shown here it can be seen that majority of the farmers in southern Sweden are satisfied with the outcomes of their collaborations.

**Good agronomic advice**

Around the world thrives on agricultural extension services. It is not different in southern Sweden as some of the farmers indicate that they collaborate with Lantmannen, Hushallningsallskapet and some private companies to obtain good agronomic services. Some of the farmers state that they maintain their collaborations because they receive good agronomic advice from their partners. For instance, Interviewee 1 states that “the benefits [agronomic advice] we get from this collaboration” is an important factor in sustaining the collaboration with the private agricultural-based companies (4/05/2019). Additionally, Interviewee 3 points out that one of his major consideration for maintaining a collaboration is the “helpful advice [he gets] from them” (12/05/2019). It is clear that good agronomic services from their partners contribute to the sustenance of some of the collaborations between and among the farmers in the region.
5.0 Discussion

This chapter begins with a presentation on the connection between the study findings and the research questions (RQs). This next section is an explication of additional findings of the study. It is followed by a discussion of the theoretical and practical contributions of the study.

5.1 Answers to Research Questions

Before proceeding to investigate types of interorganisational collaborations and the key factors that enable and sustain them, we assessed the farmers’ knowledge of sustainability and sustainable agriculture. The investigation reveals interesting findings. This is because only two farmers - Interviewee 2 and Interviewee 7 demonstrate good knowledge of sustainability and sustainable agriculture. On the other hand, we find that the other farmers have poor understanding of sustainability and sustainable agriculture. One common pattern we observe from the answers of the farmers is that majority of them equate sustainability to climate change. This view of sustainability is limited to aspects of the environmental dimension of the triple bottom line (TBL) of John Elkington. A holistic view of sustainability should encompass the economic, social and environmental sustainability dimensions (Bocken et al., 2015). Therefore, a sustainable agricultural practice needs to incorporate all the three dimensions into its sustainability considerations. Such practices lead to the protection of crops and soil, economic viability and production of quality food products.

After assessing the farmers understanding of sustainability, we proceed to ask about their collaborations with the objective to gathering relevant data to answer research question (RQ1).

(RQ1). *What types of collaborations exist between and among farming companies in southern Sweden and their stakeholders?*

The purpose of RQ1 was to identify and describe the types of interorganisational collaborations existing in the agricultural sector of southern Sweden. The research question as the analysis shows was investigated and interesting findings are revealed. Following the analysis, we identify two main collaboration types. The first collaboration type is sustained dyadic collaborations. This type of collaboration exists between two partners. It can be classified under the transactional phase of Gray and Stites’ sustainability continuum. This is because as the name suggests this type of collaborations exist between two partners. In addition, this collaboration types have short-term to medium-term focus where the farmers seek resources and or expertise of their partners to increase their productivity and profitability.

Sustained dyadic collaborations can be categorised into two in terms of purpose and function. The first type of sustained dyadic collaboration is used by the farmers in acquiring agricultural inputs such as seeds, fertilisers, weedicides and pesticides. Second, the farmers use this type of collaboration to obtain consultancy services from farmers cooperatives organisations and agro-based consultancy agencies. The main partners of the farmers of this type of collaborations were LRF, Lantmannen and Hushållningssällskapet.

Aside from sustained dyadic collaborations, we identify long-term collaborations existing among the farmers. This type of collaborations usually exists among farmers who live in the same neighbourhood. Such farmers come together to find solutions to their common problems. This type of collaborations is akin to communities of practice where individuals with common interest and interact on regular basis with the objective solving their problem (Pohjola, 2015).
In the same way, farmers in southern Sweden used long-term collaborations to share their experiences, frustration and ideas on how to improve their farms.

(RQ2). \textit{What are the key factors that enable and sustain the collaborations?}

In order to identify the key factors that enable and sustain collaborations, we pose several questions to the farmers. As shown in the analysis of results, many key factors have been found from the interview and field observations. The main factors that explain why farmers collaboration with their partners as identified in chapter 5. The key factors are identified based on the five-phase model of Gray and Stites (2013). The key factors are identified below.

\textbf{External drivers:} the key factors of collaboration that enable collaborations in this phase include climate change, legislation and regulations and concerns about globalisation.

\textbf{Motivations:} the key factors that motivate farmers to collaborate with their partners are identified to include competency-reasons, resource-related reasons, and society-related reasons.

\textbf{Partners and partnership characteristics:} the farmers consider certain key characteristics before they choose to collaborate with a potential partner. Some of the key characteristics the farmers look out for in potential partners are reputation, expertise and quality service, trust and capacity.

\textbf{Process Issues:} when a collaboration is initiated and is being executed it becomes crucial for the partners to find ways to ensure that the collaboration is sustained until the term specified in the collaboration elapses. During a collaboration the farmers mention the following factors as very critical to the success of the collaborations - trust building, transparency, good relations and cooperation, and shared vision.

\textbf{Collaboration outcomes:} all the farmers report that they are satisfied with their collaborations except in few instances when they indicate that they were unsatisfied with the performance of their collaborating partners. We identify two main collaboration outcomes which the farmers which are common among the farmers. The farmers mention good agronomic advice and good quality products from their partners as key outcomes of their collaborations.

As shown above, we found two main types of collaboration and several factors that enable and sustain interorganisational collaborations in the agricultural sector of southern Sweden. As such the study has achieved its purpose of identifying collaboration types and key factors that enable and sustain interorganisational collaborations existing between and among the farming companies and their partners.

By identifying the collaboration types and the key factors that enable and sustain them we hope to contribute to the literature on interorganisational collaborations in the agricultural sector of southern Sweden. We expect that future research will build on the findings of the study.

\textbf{5.2 Additional finding}

\textbf{Economic interests drive adoption of sustainable agricultural practices}

The adoption of sustainable agricultural practices among the farming companies in southern Sweden as shown in the analysis is driven by many factors. During the fieldwork we observe
that economic interests play a significant role in the farmers’ adoption of sustainable agricultural practices (Field notes, 14/05/2019). In our analysis of the data, it did not take long to confirm the observation that economic interests is important in farmers’ choice and adoption of sustainable agricultural practices. The analysis further revealed that all the farmers are concerned about what they described as the high prices of agricultural machinery, farm inputs, weedicides and pesticides on the one hand, and the low prices of agricultural products on the other hand. This situation resulted in a slow and in sometimes lack of adoption of sustainable agricultural practices. The views of Interviewee 8 who is a researcher at the Swedish Agriculture University corroborates this finding. He states that “They are not venture capitalists and they may be a little bit risk averse I would say which may not mean super good when it comes to innovative ideas of doing stuff, there must be a culture that it is ok to take the economic risk it” (Interview 8, 29/05/2019). From sustainability perspective, the farming decisions are largely driven by economic considerations to the neglect of the social and environmental factors. In order to make farms sustainable in the region, farmers need to take a broader view of sustainability by considering the economic and social factors in addition to the environmental factors.

5.3 Contributions

The study sets out to achieve two aims - theoretical and practical. At the level of theory, the study aimed to contribute to knowledge on interorganisational collaborations and sustainability in the agricultural sector in southern Sweden. In practice, the study aims to generate insights that will be relevant to stakeholders in the agricultural sector. These aims have been achieved in the following ways.

5.3.1 Theoretical contributions

The study makes a theoretical contribution to research on interorganisational collaborations in the agricultural sector of southern Sweden. During the literature search it was found that research on collaborations between and among farmers and their stakeholders was limited. As such one of the motivations for investigating this topic was to contribute research in this subject area. As can be seen from the analysis of the findings we have been able to contribute to research in the area by identifying and describing the types of collaborations existing among farming companies and their partners. The key factors that enable and sustain the collaborations in the agricultural sector of southern Sweden have also been identified.

In addition, following the analysis a new collaboration type has been identified. This type of collaboration is not covered by the collaboration types presented in the sustainability continuum of Gray and Stites. Whereas the model of Gray and Stites (2013) emphasises on only formal collaboration types which usually come with binding agreements, we found that some of the farmers enter into informal collaborations which do not require legal backings. This new type of collaboration occurs when three or more farmers usually those in the same neighbourhood come to solve a common problem they are facing on their farms. We found that these informal collaborations most of the time last much longer than the formal collaborations the farmers have with other stakeholders. We also found that some of the farmers find the informal collaborations very helpful because they have a feeling that members of such informal farmer groups can be trusted and are willing to help one another when the need arises. It is our expectation that this finding will be used in extending Gray and Stites’ sustainability continuum and therefore contribute in furthering research on collaborations in general.
5.3.2 Practical contributions

The research study makes a practical contribution which is significant and of interest to stakeholders in the agricultural sector in Sweden. We found that there is slow adoption of sustainable agricultural practices. This is reflected in the limited knowledge most of the farmers have about sustainability and sustainable agriculture. This is a clear challenge according to a researcher at the Swedish Agriculture University. He observed that many farmers who took their business from their parents and grandparents have a tendency to work in the way the used to, and in the same time many farmers like to adopt sustainable practices because they are concerned about their farms (29/05/2019). Even though different stakeholders especially universities are working hard to develop innovative and sustainable agricultural methods, if there is no will to adopt such new measures their development will not be realized and hence, they will only be sitting on the shelves. From this perspective, it is our expectation that stakeholders in the agricultural sector such as relevant governmental agencies, policy makers, universities, LRF, farmer cooperatives and farming companies need to work together in unravelling the reasons behind farmers’ low motivation to adopt sustainable agricultural practices. Therefore, the findings of this study can be used to inform current decision-making on agriculture as well as future agricultural sector policy-making in the country and to some extent in the EU.
6.0 Conclusion

This chapter begins with concluding remarks. This section is followed by reflections of the researchers. The last section presents the researchers’ recommendations for future research.

6.1 Concluding remarks

This study has a purpose to explore interorganisational collaborations between and among farming companies in southern Sweden and their partners. It sets out to achieve theoretical and practical aims. In terms of theory, it aims to contribute to knowledge on interorganisational collaborations in the agricultural sector of southern Sweden. In terms of practice, it aims to generate insights for stakeholders in the agricultural sector by exploring the types of interorganisational collaborations that exist between and among farming companies and their partners, and the key factors that influence such collaborations. To achieve the aims we used semi-structured interviews and observations investigating the phenomenon. The investigation was guided by Gray and Stites’s sustainability continuum and collaboration models. As shown in chapter 4 relevant findings were found which allow the researchers to answer the research questions (RQs).

The study finds two main types of collaborations existing between and among farming companies and their partners. The first is sustained dyadic partnerships which occur between two partners - a farming company and its partner. This is type of collaborations are short term in nature and usually aim at solving the short-term problems of farmers. The second collaboration type is termed long-term partnerships. This collaboration type has long-term focus and involve many stakeholders. The collaboration types as identified in the analysis show that many of the collaborations in the sector fall under the transactional phase of the sustainability continuum and do not have long-term focus except few of them.

The study also finds the factors that enable and sustain interorganisational collaborations in the agricultural sector. The results are put into enablers and sustainers. The enablers of collaborations in the sector include climate change, legislations and regulations, globalisation, competency motivations, resource-related reasons, society-related reasons, partner reputation, expertise, quality and trustworthiness and capacity to deliver on promises. In addition, the sustainers of collaborations in the sector are trusting building, transparency, good relations and cooperation, shared vision, and good agronomic advice from partners. The findings show that collaborations between farming companies in southern Sweden and their partners are driven largely by economic interests and the desire to adapt and mitigate the effects of climate change on their farms. These findings shed light on collaborations in the agricultural sector of southern Sweden and therefore contribute to knowledge on interorganisational collaborations in the sector.

6.2 Recommendations for future research

Based on the study findings, we find it imperative to make some recommendations for future research. Research on collaborations among farmers and their partners is lacking in many ways. As such the recommendations that will be made are timely and it is our expectation that researchers will take them up and conduct further research on them.

First, considering the diverse nature of stakeholders in the agricultural sector, future research should investigate collaborations from a much broader perspective than the current study which
focused mainly on the perspectives of farmers. This will pave the way for a comprehensive 
analysis to be conducted on the topic. Therefore, future research needs to include the relevant 
stakeholders such as Lantmannen, Hushällningskapet and LRF as they are important players in 
this topic. These organisations were mentioned frequently by the farmers and their inclusion in 
future research will bring new perspectives and enhance research on the topic.

Second, in future researchers should consider using surveys as data collection method. Surveys 
have the advantage of being administered to many participants. Follow-up interviews can be 
conducted based on the findings of the survey. As such by using surveys in future studies 
researchers will be able obtain the perspectives of the different stakeholders in the agricultural 
sector.

Third, considering the results of the current study, there is a need for research to be conducted 
on farmers' attitudes towards new technologies, agricultural innovations and sustainable 
agricultural practices. The findings of this research will be significant to stakeholders in 
agricultural sector. This type of research is likely to generate insights that will go a long way 
to influence how agricultural innovations and sustainable agricultural practices are introduced 
to farmers in the region. It will also generate insights that will inform stakeholder engagement 
strategies in the introduction of agricultural innovations and sustainable agricultural practices.
7.0 References


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8.0 Appendixes

Appendix 1 - Interview guide

Introduction
- Introduction of researchers
- Introduction of the study
- State purpose of the study
- State how the data will be used
- Sign consent form, if applicable
- Ask permission to record

Introductory questions
- Could you please tell us about yourself?
- What is your role in this farm?
- Could you tell us when you started farming? (let them talk)
- Could you tell us your understanding of sustainability?
  - What is your definition of a sustainable farm? Or what is a sustainable farm in your view?
  - How do you contribute towards sustainability in your farm?

Types of collaborations
Introducing the questions by defining the collaboration.

- Who do you collaborate with (you do not have to name the organisation if you want)? (let them talk)
  *So these are types of interorganisational collaborations.*

- What is/was the collaboration about?
- What is/was the purpose of the collaboration?
- How often do you collaborate? (does it serve your purpose)
- Was the outcome of the collaboration satisfactory to your expectation?

Factors that influence the initiation of collaborations
A. Drivers (external factors)
At certain times external factors influence interorganisational collaborations. For example, government regulations, climate change, social expectations, technological development and globalisation could influence farmers to collaborate with other organisations.

Give one or two brief examples (before asking the main question)
Examples:

- A reduction/stop in EU’s Common Agricultural Policy subsidy…
- Last year, there was droughts in Scania an external factor which farmers could not control. (70% of farmers lost more than 50% of their crops according to LRF).

So based on the examples,

- Can you tell us what external factors drive your collaboration? (let them talk)
- What other factors would you say drive your collaborations?
- What makes you collaborate differently with your different partners?

**B. Motivations (internal factors)**

What are your motivations for collaborating?

- Are your collaborations motivated by your desire to meet the local regulations?
- Do you also collaborate to get competent hands on your farm?
- Have you ever collaborated in order to get resources (e.g. financial benefit) from your partners?
- Has there been a time you collaborate because you wanted societal acceptance?

**C. Partner and partnership characteristics**

Organisations make important considerations when choosing potential collaboration partners. Some of these considerations are partner reputation, resourcefulness, expertise etc.

- Which characteristics do you look out for in a potential partner? (let them talk).
- What do you think of before collaborating?

**Factors sustaining collaborations (making collaborations happen)**

**D. Process Issues**

In the process of collaborating, certain factors enable organisations to sustain their collaborations. Several factors influence collaboration processes and different organisations perceive these factors differently. These factors could be type of leadership, building trust, handling conflict, sharing power, creating a shared vision etc.

- Based on your past collaboration, what would you say were the factors that sustain the collaboration (make the collaboration last)?
- From the perspective of your present collaboration (in case there is an existing collaboration), please tell us what factors you think is sustaining your collaboration?
- Can you summarise what makes this collaboration works?

**Outcomes**

The results of collaborations tend to influence the longevity of the collaboration. In some instances, they influence future collaborations in terms of who to collaborate with and the terms of the collaboration. As such,

- We would like you to tell us some of the outcomes of your past/present collaboration?
- How does/did the outcome affect the collaboration?

Jag är hemskt tacksam
Appendix 2 - Sample interview transcript

Interview 4

Date: 14/05/2019

Introduction of researchers and study

Interviewer: Could you please tell us about yourself?
Interviewee: I’m 63 years old. I have been a farmer since 1983. I have a university degree from the Swedish University of Agriculture. Before that, I went to different farming schools and have some practice in the US. I have been here in the last 35 years.

Interviewer: Congratulations! that’s good.

What is your role on the farm?
Interviewee: I’m the manager, the worker and everything. I also from time to time I have one or two employees but no I when I need help I get from [pause] the employment agency.

Interviewer: what is the size of your farm?
Interviewee: it is getting smaller but last year it was 370 hectares. Next year it will be 240 hectares. I’m slowing down because of my age.

About sustainability

Interviewee: Have you heard of sustainability or sustainable development before?
Interviewee: I will say I have a little impact on the environment as possible. I’m worried about climate change. What can I do to make less the impact?

Interviewer: Can you give some examples of sustainable practices do you on your farm?
Interviewee: I have some windmills on my farm
[He mentions that he owns two houses which we find not to be relevant to answering our research questions].

About collaborations

Interviewer: [After giving two examples, the interviewee was asked] - do you collaborate - work with other organisations or farmers?

[Interview did not understand. It was further explained to him to Swedish]

Interviewee: I collaborate with some other farmers to share the machines.
- Hushållningssällskapet I buy chemical and advice from that organisation.
- And I also make business with LANTMÄNEN and these small businesses. I sell all my weeds [to] one small company.

Interviewer: Do you have contracts with the small company?
Interviewee: Yea! every year [it] is the same company. So it is [a] person to person connection. I always work with the same company. I appreciate working [with] the small company because you always to talk to the same person.

Interviewer: How often do you collaborate?
Interviewee: Everyday I would say in one way or another.

Interviewer: Are you satisfied with your collaborations?
Interviewee: yes, very much. That is part of the [reason] why I want to continue as a farmer because after many years you find persons [...] that you like. In the beginning, you try this one and this one and then you find something that works smoothly.

Drivers of Collaboration
Interviewer: what external factors drive your collaborations?
Interviewee: climate change is a common problem
- Change in [agricultural sector] regulations come from the EU but not the Swedish government or the [Helsinborg] Kommun.
- Maybe I make small changes all the time [on my farm] but don’t realise them. Maybe I’m not aware of why.

Motivations for Collaborating
Interviewer: [After giving examples of motivations the interviewee was asked] Do you collaborate to get expertise [to work on your farm]?

Interviewee: Of course, the main reason is economical. Of course, because my farm enterprise must survive. This is the most important reason [for my collaboration] but also other reasons like personal reasons. I know someone who buys all my weed, send all my weed to make vodka. I have done business with him for many years. I know I can send … he can get the trucks to get all my weeds for many … for all my money and I trust he will send me money. I don’t have to worry, I don’t have to write a letter just a call just use the telephone. Like said some of the reasons are economic and personal.

I feel very strong[ly] that I must take care of the farm or the soil. I must take care of the soil. Maybe that gives me the input to make special relationships. I think it does.

Interviewer: do you sometimes collaborate to get social acceptance?
Interviewee: Yes, it is important for me.

Interviewer: do you have some of those organisations or farmers around here?
Interviewee: we have meeting this evening we meet every month 20 farmers. And of course, if we talk about social acceptance it is important for me to get what I’m doing to get accepted by them [fellow farmers]. Because when you are a farmer everyone who is driving his car or truck [by] can see what I’m doing.
Factors that sustain collaborations

Interviewer: what factors sustain your collaborations?
Interviewee: I make business with LANTMÄNEN. It is the biggest organisation. Maybe I don’t they don’t only sell products I also buy chemicals, fertiliser and like I said it is economical and personal reasons.

Interviewer: do you buy fertiliser and chemicals from the same company every year?
Interviewee: Yes, as a matter of fact, I buy fertiliser from, I ask for the prices from three companies. I always buy from the same company. I always buy chemicals from the same company but that is also because you are not only buy[ing] the chemicals. For example, the weed killers or bug killers you also buy the advice. You also get a man coming helping you to look at the crops to say that this you must do this. This advice I buy from the seller but also from Hushållningssallskapet when I am a bit doubtful, I call Hushållningssallskapet or a take photo [and send to them] to take a look at it.

Interviewer: Do you have a contract with Hushållningssallskapet?
Interviewee: Yes, yes, yes, they help me with the documents from the EU and they help me [to make] the plans for the farm.

[He shows detailed farm plan which he was helped to make - comments].

We make plans for the crops. This is the plan for every field, every crop and what you do within every field.

Interviewer: so they help you to make this plan?
Interviewee: yes, it is quite hard to make it yourself.

Interviewer: Thank you for that. Are you satisfied with your collaborations with them?
Interviewee: it is because eeer since Hushållningssallskapet started selling the advice that is about 35 years ago. Since then the selling companies have to adjust their advice because if the seller says you must use one litter per hectare and Hushållningssallskapet says ½ [a] litter is enough they [selling companies] must lower his advice and that is very good.

Interviewer: Thank you