



Cooperative Sustainability

A study of Arla's Sustainable Incentive Model

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Cooperative Sustainability: A study of Arla's Sustainable Incentive Model

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Abstract

The agricultural industry is a large contributor to greenhouse emissions and therefore faces new challenges to implement sustainable practices. The rising societal demand for sustainability makes the agricultural sector dependent on working towards environmentally friendly practices. Agricultural cooperatives make up a large portion of the sector and are therefore an important actor towards creating sustainable and robust food production. However, cooperatives are owned for the benefit of their members, which raises the question how cooperatives can involve their members in sustainable actions. The aim of this study is to gain a better understanding of how farmers of a cooperative view sustainable incentives, as well as if it affects their investments on the farm.

To achieve the goal of this study, a case study of the farmers of Arla Food was carried out. Arla recently implemented an incentive model that rewards their members for sustainable actions on their farms. The model was implemented as an effect of Arla setting out to reach their sustainability goals.

The study uses an exploratory design with a qualitative case study. Interviews were conducted with members of Arla to gain an understanding for their opinions on the incentive model. The findings from the interviews were then analyzed using the conceptual framework consisting of the concept of a cooperative, agency relationship and organizational change.

The findings of the study suggest that incentive models can be used by cooperatives to implement sustainable change on the farm. However, it indicates the importance of sharing information with the members as well as possible new risks such as investments. It is unclear if incentive models like the one implemented by Arla are the future for cooperative sustainability, however, it can be stated it has the possibility to affect the members views and trust of the cooperative. This study contributes to understanding how the members of an agricultural cooperative are affected by sustainable decisions.

Keywords: Arla Foods, Agricultural Cooperatives, Cooperative Sustainability, Incentive Models, Sustainable Incentive Models, Organizational Change, Agency Relationship

Sammanfattning

Jordbruksindustrin är en stor bidragande faktor till utsläpp av växthusgaser och står därmed inför nya utmaningar för att implementera hållbara metoder. Det ökade kravet på hållbarhet från samhället gör att jordbrukssektorn nu tvingas arbeta mot mer miljövänliga processer. Lantbrukskooperativ utgör en stor del av jordbrukssektorn och spelar därmed en viktig roll i att skapa en hållbar och robust matproduktion. Kooperativ är dock ägda av sina medlemmar och för sina medlemmar, vilket skapar en fråga om hur kooperativ kan involvera sina medlemmar i hållbara åtgärder. Syftet med denna studie är att få en bättre förståelse för hur medlemmar i ett kooperativ ser på hållbara incitament, samt om det påverkar deras investeringar på gården.

För att nå målet med denna studie utfördes en fallstudie av Arla Foods lantbruksmedlemmar. Arla implementerade nyligen en incitamentmodell som belönar medlemmarna baserat på hållbara åtgärder som gör på deras gårdar. Modellen blev implementerad som en effekt av att Arla ska möta sina egna hållbarhetsmål.

Studien använder sig utav en utforskande design med en kvalitativ fallstudie. Medlemmar av Arla blev intervjuade för att få en förståelse för deras åsikter om incitament modellen. Den insamlade data från intervjuerna blev sedan analyserad med hjälp utav ett konceptuellt ramverk som bestod av konceptet av ett kooperativ, agentrelation och organisatorisk förändring.

Fynden av studien indikerar på att incitament modeller kan användas av kooperativ för att implementera hållbara förändringar på gårdarna. Dock påvisar studien vikten av att dela med sig av information till sina medlemmar samt att nya risker kan uppkomma såsom investeringar. Det är oklart om incitament modeller liknande den Arla har implementerat är framtiden för kooperativ hållbarhet, men det är möjligt att se att liknande modeller kan ha en effekt på medlemmarnas syn och tillit på kooperativet. Studien bidrar till förståelsen för hur medlemmar i ett lantbrukskooperativ blir påverkade av hållbara beslut av kooperativet.

Nyckelord: Arla Foods, Lantbrukskooperativ, Kooperativ hållbarhet, Incitament modeller, Hållbara incitament modeller, Organisatorisk förändring, Agentrelation

Table of contents

1.	Introduction	10
1.1	Background	10
1.2	Problem Statement	12
1.3	Aim	12
1.4	Arla's Sustainable Incentive Model.....	13
1.5	Unit of Analysis	16
1.6	Contribution	17
1.7	Delimitations.....	17
1.8	Outline	18
2.	Literature Review & Theoretical Framework	19
2.1	Concept of a Cooperative	19
2.2	Agency relationship	20
2.3	Organizational Change	22
2.4	Conceptual Framework.....	24
3.	Method	25
3.1	Research Philosophy.....	25
3.2	Research Design	26
3.3	Exploratory Design	27
3.3.1	Literature Search and Review.....	27
3.3.2	Case Study	28
3.4	Data Collection	29
3.4.1	Interviews.....	30
3.4.2	Data Analysis	31
3.5	Quality Assurance.....	32
3.6	Ethical Considerations	33
3.7	Criticism of the Methodology.....	34
4.	Empirical Study.....	35
4.1	Farmer A	35
4.2	Farmer B	37
4.3	Farmer C	39

4.4	Farmer D	41
5.	Analysis and Discussion	44
5.1	The Sustainable Incentive Model	44
5.2	Organizational Change	47
5.3	Discussion Summary	49
6.	Conclusion.....	51
	References	53

List of figures

Figure 1. Sustainable Development Goals	10
Figure 2. Sustainable Incentive Model.....	16
Figure 3. Traditional Cooperative Governance.....	20
Figure 4. Conceptual Framework.....	24

Abbreviations

Arla	Arla Foods
BOD	Board of Directors
EU	European Union
GA	General Assembly
ICA	International Cooperative Alliance
SDGs	Sustainable Developments Goals
SLU	Swedish University of Agricultural Sciences
TSCMM	Three-Stage Change Management Model
UN	United Nations

1. Introduction

This chapter begins with presenting the background, which is then followed by the problem statement. Further, the chapter presents the aim and the case description, which is then followed by the unit of analysis. Finally, the chapter concludes with the contribution of the study and its delimitations as well as the study's outline.

1.1 Background

In 2015, the United Nations (UN) member states ratified the 2030 Agenda for Sustainable Development. The 2030 Agenda included the 17 Sustainable Development Goals (SDGs), illustrated in *Figure 1*. These goals aim to serve as a roadmap for achieving a better, more sustainable future for the planet and its people by 2030 (United Nations Development Programme 2023). To combat environmental threats and push business towards more sustainable efforts the European Union (EU) has enacted a new directive called Corporate Sustainability Reporting Directive. The hope is that with this directive, businesses will be more compelled to shift towards sustainable actions as it emphasizes that investors and stakeholders now must get access to information about businesses sustainability work (European Commission 2023).



Figure 1. Sustainable Development Goals (United Nations Development Programme 2023)

Agriculture is one of the main sectors that heavily contributes to the release of greenhouse gas emissions (United Nations n.d.). Direct consequences of greenhouse gas emissions are droughts, water scarcity, rising sea levels, and a decline in biodiversity (United Nations n.d.) However, society would suffer without sufficient agriculture, and future generations will struggle to feed a population that is only going to get bigger without developing and adopting an agriculture that is climate resilient (FAO n.d.). Additionally, agriculture contributes to one of the largest economic sectors and the largest employment globally (FAO n.d.). It is clear that agriculture is essential to our survival as a species but at the same time our species is threatened by the effects that agriculture has on our climate. It is crucial to develop agricultural systems that can both feed our constantly expanding population and yet be more robust and environmentally sustainable (Garnett 2013).

It is common for farmers to come together and form an agricultural cooperative, where they play a major role in the food and agricultural industry (Bijman and Hendrikse 2019). Cooperatives are member-owned and member-controlled businesses that are operated by and for their members to meet their common needs and ambitions in the areas of economic, social, and cultural development (ICA 2018). Agricultural cooperatives stand for around 40% of all market shares in the EU and in addition to this, dairy cooperatives make up about 55% of the market shares (Bijman and Iliopoulos 2014). Therefore, it can be stated that agricultural cooperatives have a significant impact on the development of sustainable agricultural production that can benefit both the environment and global food security. However, to achieve this, cooperatives must collaborate with their members to actively work with sustainable initiatives. Furthermore, since cooperatives are regulated by the "one member, one vote"-concept, meaning that every member is entitled to a voice, members must concur and be prepared to adhere to sustainable plans that are proposed by the cooperative (ICA 2018). With a change towards more demands on sustainable practices in the world, the role of agricultural cooperatives is also changing (Bijman and Höhler 2023).

Agricultural cooperatives provide their members with essential services such as agricultural input and selling farm products, as well as activities such as product storage and handling (Bijman and Höhler 2023). Agricultural cooperatives now have more sustainability requirements to meet, which means they must develop new programs and services that encourage the transition to sustainable food systems among the members. Changes of this kind are likely to bring about changes in the cooperative's relationship with their members (Bijman and Höhler 2023). Cooperatives have historically catered to the needs of their members. Nonetheless, to satisfy sustainability demands, cooperatives are likely to start developments towards sustainable farming practices and then persuade their members to adopt the new change when putting it into practice. The adoption of sustainable farming practices by the cooperative often entails risks and challenges for farmers, as they must adjust to new systems and acquire new knowledge (Bijman and Höhler 2023).

1.2 Problem Statement

Agricultural cooperatives can be stated to have a significant impact on the climate; however, they are also an essential key towards creating sustainable agricultural production. However, Yu et al. (2023) argue that cooperatives are not traditionally oriented towards sustainable climate actions. This argument is grounded in the fact that members are the ones who should benefit from the cooperative both socially and economically. Furthermore, farmers of a cooperative often see sustainable actions as new risks, which makes them less inclined to agree to change (Yu et al 2023).

Rising societal demands on sustainability in the agricultural sector mean that agricultural cooperatives must change with it (Höhler and Bijman 2023). Yu et al. (2023) contend that farmers are more likely to accept sustainable actions if they benefit from them in terms of better financial results. This means that agricultural cooperatives looking to implement sustainable actions on the farm level must reward their members. Cademi et al. (2021) suggest that to push members towards working with sustainability issues, agricultural cooperatives have the opportunity together with their member owners to devise incentives that encourage sustainable action. These incentives can allow members to be more inclined to make sustainable investments that they could otherwise view as risky. However, Bijman and Höhler (2023) argue that a major obstacle for cooperatives looking to adopt sustainable practices is to convince the members of the changes and to get them to accept it.

Based on previous research it can be stated that if an agricultural cooperative wants to implement sustainable actions, they need incentives for their members to do so. However, little has been researched on how farmer members of a cooperative view and work with implementing sustainability actions and if they actively work towards fulfilling them. Filling this gap plays an important role in understanding how agricultural cooperatives can work with their farmer members towards sustainable goals. This study wants to create and gain a deeper knowledge and understanding if incentives can be used by agricultural cooperatives to achieve sustainable goals. Further, it is important to get an understanding of how farmer members react and view these types of implementations by the cooperative.

1.3 Aim

The aim of this study is to gain a better understanding of how farmers of a cooperative view sustainable incentives, as well as if it affects their investments on the farm.

1.4 Arla's Sustainable Incentive Model

To reach the aim of the study Arla Foods (Arla in the following text) will be used as a case. Arla, being one of the largest dairy producing cooperatives in the world (Arla 2023a), can be considered an important actor towards creating sustainable dairy production that other actors in the agricultural sector and cooperatives can follow. Being a large producer like Arla puts them in a unique position to create a path of how sustainable dairy production can look like and how farmer members can be involved in the process.

To involve their members in their sustainability goals of net-zero emissions by 2050, the cooperative puts a large emphasis on the individual farmer members' contribution towards sustainable action. With the creation of the Sustainable Incentive Model, Arla aims to reward past and future actions that farmer members take. This model ties the milk price into sustainable actions that the farmer makes which effectively makes the farmer dependent on shifting towards a more sustainable practice (Arla's annual report 2022). Therefore, if farmer members want to achieve a higher milk price, they must make investments that follow the Sustainable Incentive Model. Arla believes that their model will push their members towards becoming more sustainable which, in turn, will help the cooperative achieve their sustainability goals (Arla's annual report 2022).

However, critics towards Arla's Sustainable Incentive Model argue that the model does not benefit all members of Arla and that Danish members are the ones who gain the most from the model. This argument is grounded in that the model was created in Århus, Denmark, and that the politics in Denmark focus on sustainability (Nilsson 2023). Linderholm (2023) agrees that the model benefits the Danish farmers, and that Arla seems to not be focusing on all the different parts of sustainability, such as economic and social but rather mostly on the climate aspect.

Arla has used incentives previously to encourage members to make certain implementations on their farm. In 2003, Arla introduced Arlagården with the aim to lift dairy standards, animal welfare and become transparent on the production of milk. Arlagården is a requirement for the farmer members to follow if they want to deliver milk to Arla. These requirements are based on the four cornerstones of milk quality and food safety, animal welfare, people, climate and nature (Arla 2021). In 2017, Arla expanded Arlagården with Arlagården Plus, with the aim to enhance transparency on the farm as well as help the farmers make improvements on the farm. Through Arlagården Plus, members could voluntarily fill in detailed information about farming practices, renewable energy production and information on land use (Arla 2018). Arlagården Plus incentivized farmers to fill in the extra information in return for an addition of €1 cent extra payment per kilo of milk. However, in 2021 Arlagården Plus became a mandatory part of Arlagården and the additional payment was removed, instead the extra €1 cent became a part of the raw milk value (Arla Foods 2021).

Arla is one of the largest producers of dairy in the world (Arla 2023a), with an output of 13,455 million kilograms of milk in 2022. Arla is a cooperative with 8,492 farmer members and has as of 2022 a revenue of €13,8 billion, up €2,6 billion from the previous year. The 8,492 dairy-producing farmer members of Arla come from Denmark, Sweden, Germany, the United Kingdom, Belgium, the Netherlands and Luxembourg (Arla's annual report 2022). Arla wants to be a leader of change in creating a sustainable dairy cooperative and has taken serious steps towards lowering their CO₂e emissions by 30 percent by 2030, and by 2050 carbon net zero. To achieve these objectives, Arla has devised a Sustainable Incentive Model that will compensate farmer members depending on the sustainable activities done on the farm (Arla's annual report 2022). The Sustainable Incentive Model is based on Arla's climate check programme, which helped the cooperative identify which activities that could be made by the farmer members to achieve the most sustainable improvement on the farms (Arla's annual report 2022).

Arla is actively and effectively following eight of the 17 SDGs put forward by the UN. The reason behind this is that Arla feels like these eight goals are easily achievable with their current production. Arla aspires to eventually be able to achieve all 17 SDGs through their ambitious sustainability plans (Arla 2023b). The current SDGs Arla (2023b) follows are:

- *No 2* - End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- *No 3* - Ensure healthy lives and promote well-being for all at all ages.
- *No 5* - Achieve gender equality and empower all women and girls.
- *No 8* - promote inclusive and sustainable economic growth, employment and decent work for all.
- *No 12* - Ensure sustainable consumption and production patterns.
- *No 13* - Take urgent action to combat climate change and its impacts.
- *No 15* - Life on land.
- *No 17* - Strengthen the means of implementation and revitalize the global partnership for sustainable development.

In 2022, Arla announced their Sustainable Incentive Model. This model ties the milk prices the farmers receive to their sustainable work on their farms. Through the model, farmer members will eventually be able to achieve a total of €3,0 cent per kilo of milk for sustainable actions. To both reward and motivate farmer members Arla has committed to annually re-distribute €500 million for past sustainable actions and new ones (Arla's annual report 2022). The Sustainable Incentive Model is based on Arla's climate checks that farmers voluntarily can participate in which allows farmers to identify their greenhouse emissions and suggests what actions they can take to reduce these emissions (Arla's annual report 2022).

The Sustainable Incentive Model consists of six different segments. The following segments will be described below. The first and most important and largest segment is called *The Big 5*. This segment is according to Arla's annual report (2022) made up of the following components:

- *Animal robustness* - ensures healthy and happy cows.

- *Feed efficiency* - emphasizes using precise amount of feed for the cows to maximize their milk production.
- *Fertilizer use* - using the precise amount of fertilizer with the plants.
- *Land use* - farmers can maximize their feed yield in a climate-effective manner.
- *Protein efficiency* - ensures the right amount of protein in the feed.

The second segment is called *Sustainable Feed* and focuses on creating local feed on the farm such as soy production. The third segment is *Biodiversity and Carbon Farming*, this segment focuses on maintaining and enhancing biodiversity as well as carbon sequestration on the farms. The fourth segment is *Manure Handling* meaning how manure on the farm is handled and used, where using it as biogas is a part of the model. The fifth segment is called *Renewable Electricity* and is about renewable electricity usage on the farm. Finally, the sixth segment is called *Knowledge Building* where Arla farmers are invited to events to talk to their peers about sustainable actions in the different segments (Arla's annual report 2022).

The model is a point-based system, illustrated in *Figure 2*, where farmer members can collect points through the 6 different segments that can be further broken down into a total of 19 different activities. These 19 activities are as of 2023 made up out of 80 points that farmers can score, the number of points will over time increase to a total of 100 when Arla finds new areas that can be improved upon (Arla's annual report 2022). Each point allows the farmer to earn €0.03 cents per kilo of milk, where activities with the most impact will allow for more points to be earned. When the model is fully developed with 100 points, farmer members will be able to earn a total of €4 cents per kilo of milk, which equals €3 cents per kilo of milk for completing the points and an extra €1 cent per kilo of milk for submitting their climate check (Arla's annual report 2022).



Figure 2. Sustainable Incentive Model (Arla 2023c)

Arla will use the raw milk value to support the model, with the goal that over time, Arla's sustainable activities would increase the return of their raw milk value. This will eventually provide additional returns to the members through commercialization. Arla argues that through showing that their farmer members take sustainable actions towards the climate, consumers will be willing to pay a higher price for their milk as it directly supports the farmer (Arla's annual report 2022).

The Sustainable Incentive Model officially came into effect in July 2023 and is based on both the climate check data submitted in 2022 as well as new documentation and data submitted by the members. Arla predicts that around €26,000 of the average farmer members milk price with a production of 1.2 million kilo of milk will be based on the farmers climate actions in the first full year (Arla's annual report 2022). Furthermore, as of the end of July 2023, Arla's members were said to achieve an average of 48 points in the model, meaning a total of €2,44 cents per kilo milk when including the submission of the climate check (Tuborgh 2023)

1.5 Unit of Analysis

The rationale behind selecting a specific case or cases to analyze is known as the unit of analysis. The unit of analysis is what the researcher focuses on within the study itself (Tight 2017). Gangress and Yurkovich (2006, p. 11) say that the unit of analysis "refers to what is studied, which could be an individual, family, community, organization, a state or even a nation". In the case of this study, the unit of analysis is the farmer members of Arla and how they view the Sustainable

Incentive Model. Despite being necessary for our life, our current food production harms the environment (Garnett 2013). Because of this sustainability pressure that agricultural production is facing, Arla's farmer members' views on their new Sustainable Incentive Model and if it affects their investments on the farm will be the unit of analysis.

1.6 Contribution

This research will help determine if agricultural cooperatives can employ incentive models to both reward and encourage farmer members toward more sustainable farming practices. This study's findings can help agricultural cooperatives determine if farmer members think incentive models like Arla's are a positive thing or whether they view it with negativity. As a result, the agricultural cooperative sector may utilize this study to determine if farmers can be incentivized to take sustainable steps on their farm. Gaining this information is critical since the agricultural business is responsible for both feeding the world's population and developing robust and sustainable food production.

The study's findings will also enable future practitioners to better enhance farm-level sustainability work and how agricultural cooperatives may actively involve their members in implementing sustainable initiatives on their farms.

1.7 Delimitations

Delimitations are essential to any study as they provide the author's purpose and objective with bounds and boundaries, keeping them from becoming insurmountable. Delimitations, however, might be seen as being under the authors' control, which is why they often relate to the theoretical framework, goals, research topic, and subjects or objects to be investigated (Theofanidis and Fountouki 2018). This study focuses on Arla's Sustainable Incentive Model and has therefore limited itself to this model to understand how Arla's members view it and if it affects their investments on the farm. This delimitation has been done to investigate if Arla's Sustainable Incentive Model influences farmers' sustainability efforts.

Furthermore, this study was confined to a European environment, focusing on Arla's farmer members in Sweden. This restriction was imposed due to the researcher's proximity and to facilitate access to respondents for the study's interviews. Further, the research is interested in finding out how Swedish farmers are affected by the model. The selection of respondents for this study was limited to the geographical location of Småland in Sweden, the reasoning behind this was that the researcher had a large contact network of farmers in this area.

1.8 Outline

The study starts with an introduction chapter where a background and problem statement about the topic is brought up. It further continues with the aim and the unit of analysis of the study. Additionally, the chapter describes the contribution that is made with the study and its delimitations. The second chapter presents the literature review and the theoretical framework which form the base of analysis for the empirical data. The third chapter describes the chosen method that is used in the research and how it affects the results. The chapter ends with criticism towards the chosen methodology. Chapter four presents the empirical data results, which is followed by the analysis and discussion in Chapter five, that is then followed by Chapter six, which summarizes the findings. The study ends with a reference list and the interview guide in the form of an appendix.

2. Literature Review & Theoretical Framework

This chapter provides and literature review for the researcher to gain insight into how cooperatives function, how the relationship between members and managers looks and how organizational change is made. The chosen theories are brought up and presented, and then concluded in the conceptual framework at the end of the chapter.

2.1 Concept of a Cooperative

A cooperative can be defined in many ways. However, the International Cooperative Alliance (ICA), which is acknowledged as the worldwide steward of the declaration on the cooperative identity, its values, and principles, defines a cooperative as follows: “A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise” (ICA 2018). Organizations that meet this description are cooperatives, while those who are not able to meet this description cannot be considered as one (Nilsson 1996).

Cooperatives generally follow seven principles that guide the organization: voluntary and open membership; democratic member control, economic participation of members, autonomy and independence, provision of education, training and information, cooperation among cooperatives and concern for the community (ICA 2018). Finally, a cooperative is based on the following values: self-help, self-responsibility, democracy, equality, equity, and solidarity (ICA 2018). The values of the cooperative are what the members deem important and not the managers or employees. If the members have similar values and viewpoints on how the cooperative should be, it is easier to agree on how it will satisfy their interests (Nilsson 1996). The values of the cooperative can only be present in the members’ mind and not within the organization. On the other hand, the principles of the cooperative are attributes of the organization. When managers and employees, who are non-members, have the same values as the members, communication between these parties is substantially strengthened, and managers are under more pressure to act in the members’ best interests (Nilsson 1996).

Agricultural cooperatives have a unique characteristic relationship with their members. The members are simultaneously the owners, buyers, sellers, controllers and benefactors of the cooperative (Arcas-Lario et al. 2014). Contrary to most cooperatives, agricultural cooperatives are relatively substantial and have a sizable market share. Agricultural cooperatives are popular among farmers since they can, with the help of the cooperative, invest and carry out businesses that they would not be able to achieve on their own. Therefore, farmers have significant economic

incentive to both join and stay in the cooperative since it enables them to have more secure and better economic benefits and profits (Barton 2000). Farmers will welcome sustainable decisions from the cooperative if they result in a better financial outcome due to the cooperative’s social and financial incentives. Given that farmers tend to be risk averse and that sustainable investments can carry risks, they will typically prefer to maintain their current production without taking on any new, risky initiatives (Yu et al. 2023). Finally, shifting the cooperative towards more sustainable practices will require experimentation. Implementing such a shift will bring uncertainty and new risks for the farmer members (Bijman and Höhler 2023).

Members of cooperatives typically transfer formal governance to the Board of Directors (BoD). The BoD is democratically elected by and from the members to serve as the primary governing body (Bijman et al. 2012). As the cooperative grows, the BoD will hire managers and other staff to assist in putting the members’ decisions into action. Members of the BoD examine plans from their unique perspective of their farms. Managers function as entrepreneurs, seeking to further grow the cooperative to achieve personal goals or agendas. It is the BoD’s obligation to consider these two worlds and perspectives in the cooperative. Where the BoD is responsible for decision control and the managers of decision management (Bijman et al. 2012). Members elect the BoD through the annual General Assembly (GA). The GA indirectly influences the cooperative governance and ensure that the cooperative is run democratically through the “one person, one vote”-principle. The GA is the way for members of the cooperative to express themselves and put forward their opinions (Barraud-Didier et al. 2012). The GA resembles shareholders’ meetings in companies, with the exception that cooperative members contribute to the capital of the organization and engage in other cooperative activities (Arcas-Lario et al. 2014). The traditional governance of a cooperative is shown in *Figure 3*.

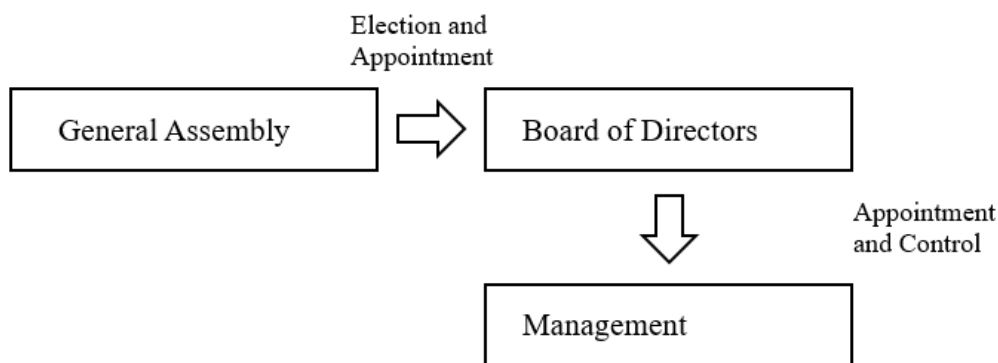


Figure 3. Traditional Cooperative Governance, own illustration

2.2 Agency relationship

An agency relationship is created when a principal (a cooperative member) engages an agent (board members and managers) to carry out a task on the principal’s behalf

(Arcas-Lario et al. 2014). In an agency relationship two main problems can arise, the first problem is the agency problem. This problem develops when the principal and agent's goal or aims clash and when the principal finds it complicated to confirm or understand what the agent is doing. The fundamental difficulty with the agency problem is that the principal cannot confirm whether the agent acted in the principal's best interest (Eisenhardt 1989). However, according to Cook et al. (2000) the agency problem can seldom be entirely resolved since it is typically hard for the principal to fully guarantee that the agent will make the best decisions from the point of view of the principal. The second problem that can arise in an agency relationship is the risk sharing problem. This problem occurs when both the principal and agent have different views on risk. The issue of having a risk sharing problem is that the principal and the agent have different views on the action that should be taken towards risk and therefore have different risk preferences (Eisenhardt 1989).

Information asymmetry is another problem that may occur in an agency relationship in addition to a goal conflict between the principal and the agent. Information asymmetry means that the agent frequently knows more about the setting where choices will be made than the principal. Due to the principals' limited information, the agent may act opportunistically, which may be at odds with the principal's objectives (Arcas-Lario et al. 2014).

In a cooperative context, information asymmetry between managers and members runs the risk of creating adverse selection and moral hazard (Macagnan and Seibert 2021). Adverse selection is created when members deliver their service or product to another organization because of the lack of or limited information from the cooperative. While moral hazard refers to the possibility that managers make decisions that do not meet the expectations and interests of the members (Macagnan and Seibert 2021). Every agreement between two parties involves some degree of information asymmetry, but this asymmetry can be reduced. Depending on how a cooperative chooses to distribute information to its members, there may be more or less information asymmetry leading to adverse selection and moral hazard. If a cooperative does not choose to disclose information or only certain information, members may decide to not work with the cooperative anymore and mitigate adverse selection or keep working with the cooperative and risk moral hazard (Macagnan and Seibert 2021). Given the importance of the members in a cooperative, information asymmetry will lead to mistrust of the managers and the cooperative which could further lead to members leaving the cooperative (Macagnan and Seibert 2021). As a result, it may be said that information asymmetry is something that cooperatives should work to reduce, and it highlights the need for cooperatives to be open with their members about information and goals.

2.3 Organizational Change

Today's society is constantly changing, and organizations must change with it to survive and to stay successful. Organizational change happens as a response to what is currently of importance in society, such as the shift towards more sustainable action. Although change is of importance for all types of organizations, the success rate of change in an organization is less than 30 percent (Al-Haddad and Kotnour 2015). Burnes and Jackson (2011, p.135) argue that the reason organizations fail in implementing change is not because of poor planning or execution: "Rather the underlying cause is a clash of values between the organization and the approach to and type of change it has adopted". Therefore, it is crucial for the organization to execute change in a way that is most suited for the dynamic context in which it is occurring (Al-Haddad and Kotnour 2015). Individuals are an important part of any organization, and it can therefore be stated that it is an important factor in an organization's implementation of change. Individuals will consider their own talents and their competence in the area that is affected before they can accept any change. Further, an individual will become disheartened if they think they lack the skills necessary to succeed in the new change the organization is putting into place (Cherim 2006).

In 1947, Kurt Lewin introduced the *Three-Stage Change Management Model* (TSCMM). This model is widely used and considered to be one of the most effective organizational change models. The TSCMM consists of three different stages called: unfreezing, moving and refreezing (Islam 2023). According to Brisson-Banks (2010, p. 244) these stages can be explained as follows:

- *Unfreezing* - is the act of changing the current, stable equilibrium that maintains current attitudes and actions. This procedure must consider the inherent risks that change poses to individuals as well as the requirement to inspire those impacted to accept change to achieve the natural state of balance.
- *Moving* - coming up with new responses based on updated knowledge.
- *Refreezing* - is the process of stabilizing the new change by incorporating the new responses into the personality of individuals involved.

The model can be viewed as getting rid of bad habits by replacing these with better new habits. For the organization to succeed in its change, the individual must be convinced and motivated to make the changes that the organization wants to implement (Brisson-Banks 2010). To avoid resistance to change among the individuals of the organization, the unfreezing stage should act as a forum for people to express their opinions and learn about others' views in order to modify their own (Islam 2023). The organization's ultimate objective is to successfully implement its change process, which is only achievable if individuals are willing to take the necessary action despite any difficulties that may arise (Brisson-Banks 2010). Further, Brisson-Banks (2010) argues that organizations that are implementing change can apply this model in the following way:

- *Unfreezing* - is the period the organization needs to plan for a new change, to support and push for the acceptance from the individuals, and finally to dismantle the equilibrium that is currently holding back the change required for survival.
- *Moving* - once the organization has set its change into action, individuals may have to discover or learn new ways to do their tasks, whether these tasks are new tasks needed to be done or the same task but in a different way. As soon as the individuals in the organization have embraced the new changes, they can begin to support them. However, some individuals may refuse the change even though others decide to work through them.
- *Refreezing* - occurs when the new change is stable and the individuals have adjusted to the new way of thinking, doing tasks or new tasks. Once this has occurred, an increase of trust in the organization happens with a newfound sense of optimism where the individuals see a bright future for the organization. The process of refreezing should start at this point.

When an organization has managed to implement its new change and it is finally accepted by the individuals, the organization should hold a celebration of sorts that acknowledges everyone that was involved in the change and points out their part in the success. This allows the individuals to know that change is a part of the organization and that it may occur again in the future (Brisson-Banks 2010). The TSCMM emphasizes that organizational change is based on individuals and that if long term change is to happen the individuals of the organizations must be onboard with it. Resistance to organizational change can come from two distinct directions: societal habits or customs and the formation of internal resistance to change (Islam 2023). If the organization has strong motivating reasons that can disturb people's habits, interests, or norms, these sorts of resistance can be dealt with. However, when people are convinced to deviate from their group norms through strong motivating forces, opposition to the new change will increase. In order to mitigate this resistance, organizations can diminish the importance of the individual's place in the group norms and show the importance of change instead (Islam 2023).

2.4 Conceptual Framework

The conceptual framework compiles and presents the theories and concepts of the study and how they relate to each other for this study. *Figure 4* showcases how the concept of a cooperative, agency theory and organizational change are related. It illustrates that an agency relationship exists between the different parts of a cooperative and therefore affects decisions and information exchange between the

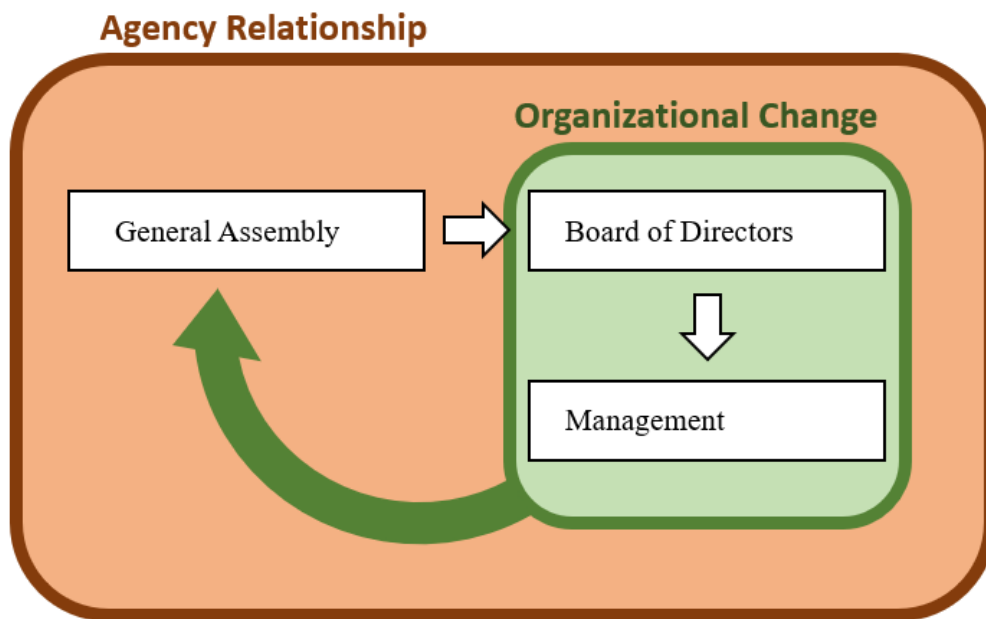


Figure 4. Conceptual Framework, own illustration

different parts. The GA i.e., the members, become principals to both the BoD and the managers and an agency relationship is created. This means that the principals are not able to know if the agents have acted in their best interest, if they share the same preferences to risks and can further lead to information asymmetry (Eisenhardt 1989). *Figure 4* further shows that organizational change is something that the BoD and the managers of the cooperative are responsible for implementing and developing. The organizational change that occurs affects the members of the cooperative and it is up to them to decide if this change is something that they feel resistance towards or if they accept it. Depending on the members' decision the organizational change that the BoD and managers have decided to implement will be successful or not (Brisson-Banks 2010). The chosen theories and concepts will allow for the ability to gain comprehension of how Arla's farmer members view the Sustainable Incentive Model and if it affects their investments. Furthermore, it will allow for the researcher to gain insight into if the model is effective for Arla to use.

3. Method

The method chapter of the study will present the chosen research philosophy, research design and data collection method. Quality assurance and ethical considerations are discussed and presented. Finally, a criticism of the chosen methodology is brought up.

3.1 Research Philosophy

Any study design and approach heavily relies on the epistemological and ontological viewpoints (Guba and Lincoln 1994). To comprehend the research paradigm the philosophical perspective is of importance (Myers 2020). Furthermore, the methodology selection should take the researcher's ontological and epistemological stances into consideration (Guba and Lincoln 1994).

The epistemological perspective focuses on what constitutes acceptable knowledge and how that information is used to study the social world (Bryman and Bell 2017). Epistemology is viewed as the researcher's internal viewpoint, as it relates to how the researchers discriminate between their own values and how they see the world around them (Alharahsheh and Pius 2020). The study's epistemological approach adopts an interpretivism stance that permits the interpretation of social behaviors and circumstances. Additionally, by adopting an interpretive stance, the researcher forgoes the use of predetermined dependent or independent variables in favor of concentrating on human complexity and seeking to understand events by the meanings that people assign to them (Mayers 2020). In contrast to positivism, which tries to give clear, universal principles that can be generalized and applied to everyone independent of some important elements and aspects, interpretivism seeks to integrate richness in the insights acquired (Alharahsheh and Pius 2020). Given this, it is difficult to establish generalizations that can be applied across a broad context; yet it may give a thorough understanding of unique and specific settings, as well as the elements that influence them (Alharahsheh and Pius 2020). As a result, multiple interpretations of the same social circumstance or activity that is being examined might be given by researchers.

The ontological perspective refers to the link between reality and social actors (Bryman and Bell 2017). Ontology is interested in the phenomenon's way of existence. It is looking for the truth or a solution to a research question by showing where certain types of already-existing information may be learned (Alharahsheh and Pius 2020). The study takes a constructionist approach, assuming that reality is generated via social interactions and communication between individuals (Guba and Lincoln 1994). Constructivism emphasizes that reality is subjective and that social actors constantly alter what reality is by changing their individual constructions of it. Unlike an objectivist viewpoint, in which reality is clearly defined in terms that can be measured, constructivism contends that reality can

never be completely defined and is always changing because of social acts (Guba and Lincoln 1994; Bryman and Bell 2017). In other words, with a constructivist approach, the researcher will constantly provide a specific interpretation of reality, not a definitive version.

The views presented were chosen as they exhibit the researchers' perceptions of reality and social actors, which, according to Bryman and Bell (2017), is consistent with the features and the characteristics of a qualitative research strategy.

3.2 Research Design

Based on a qualitative case study, this study employs an exploratory design. A study's research design is determined by the topic under analysis, and this influences the study's data collecting techniques and structure (Bryman and Bell 2017). A qualitative research technique seeks to provide a knowledge of social characteristics and their various expressions to generate words as data for analysis (McCusker et al. 2014). While a quantitative approach aims to collect quantifiable data to be analyzed (Bryman and Bell 2017). The study's justification for using a qualitative research technique is that it seeks to analyze farmer members' subjective perspectives, experiences, and investments based on Arla's Sustainable Incentive Model.

A characteristic of qualitative research is that it helps give an understanding of what individuals do and say. It allows the researcher to understand social and cultural reasons and contexts of the individuals being studied (Myers 2020; Bryman and Bell 2017). The capacity of the researcher to see and comprehend the context of decisions or actions that are being taken is a significant advantage of qualitative research. By looking at their context, researchers can understand and explain why someone acted in a certain manner by. This is best understood by speaking with individuals (Myers 2020). Therefore, a qualitative approach fits this study as it will investigate farmer members' individual experiences of Arla's incentive model.

The decision to not use a quantitative approach is justified by the fact that its goal is to learn more about how models of this type are seen, rather than to quantify or assess what the Sustainable Incentive Model does. Additionally, through analyzing, interpreting and explaining data collected, it allows for enhanced knowledge of how Arla's Sustainable Incentive Model is seen by the farmer members and whether it affects their investments. Thus, a qualitative research design is the most suitable approach for this study.

The researcher has chosen an inductive research approach, which means that the researcher uses a bottom-up approach. This technique emphasizes that patterns will emerge from the data collected on the topic, which may subsequently be developed into theories (Myers 2020). The inductive method rests on the assumption that empirical data and findings will add to theory, while a deductive approach uses existing theories and hypotheses to obtain a conclusion indicating whether the

hypothesis is correct or incorrect (Bryman and Bell 2017). Given this, and the fact that the study focuses on respondents' experiences, it is legitimate to conclude that an inductive approach is most suited since respondents' perceptions are of interest.

3.3 Exploratory Design

Exploratory research is utilized when the field of research is unknown or has received little research focus. To use this type of research approach effectively, the researcher must have a flexible attitude toward the acquired information. This allows the researcher to inquire what they are seeing or learning from it (Stevens et al 2005). According to Stevens et al. (2005, p. 53), exploratory research can be explained as detective work: "It involves a search for 'clues' to reveal what happened or is currently taking place". Stebbins (2001, p. 6) has a similar view of the exploratory design and contends that: "Researchers explore when they have little or no scientific knowledge about the group, process, activity, or situation they want to examine but nevertheless have reason to believe it contains elements worth discovering". The primary concept for this study was to investigate sustainability work from an agricultural cooperative member's standpoint without knowing which phenomena would be of interest to the investigation. As the research process evolved, Arla's Sustainable Incentive Model came to light and offered a deeper understanding for how sustainability actions can look within a cooperative. However, little information was available for how Arla's farmer members viewed this model and if it affected their investments. The researcher of the study believed that understanding what the farmer members experiences were with the Sustainable Incentive Model contained elements worth discovering.

Using an exploratory design to gain a deeper understanding of the studied phenomena, allows the researcher to be flexible and open-minded in the data collection to uncover new insights and knowledge (Stebbins 2001). This enables the study's researcher to obtain subjective and individualized experiences from the respondents, which matches with the research philosophical perspectives.

3.3.1 Literature Search and Review

A literature search was conducted in order to get information of the chosen study field and acquire an awareness of what has been done in that area (Bryman and Bell 2017). This was done through extensive searches on electronic databases, libraries and other online search engines. Through literature searches, the researcher can develop insight on where the study might add new knowledge and bridge research gaps. Further, through existing literature, the researcher is informed about possible data that can be collected and which kinds of methods that can be used (Hennink et al 2020). Using specified search strategies, eligible materials, such as peer-reviewed articles and published reports, were found in Web of Science, Primo, ScienceDirect, and Google Scholar. These served as the theoretical framework and the foundation of the problem statement in the study.

In this study, a narrative literature review was used, which examines the literature from an interpretive standpoint. A narrative literature review allows the researcher to obtain a broader insight into the phenomena that will be investigated (Bryman and Bell 2017). Furthermore, a narrative literature review is consistent with the study's selected exploratory design, given that under an exploratory design, literature reviews are performed to demonstrate that little or no work has been done on the phenomenon (Stebbins 2001). This means by using a narrative literature review the researcher is allowed to get a deeper and more thorough grasp of the examined area (Bryman and Bell 2017).

Through the literature review the researcher was able to discover research gaps and appropriate research topics, allowing for a greater understanding of the phenomenon. Furthermore, through the literature review the researcher was able to gather rich data, such as natural language, that could be utilized for the study. Research papers were collected for the study if they addressed aspects of agricultural cooperatives, cooperative sustainability, agricultural cooperative sustainability, sustainability, agricultural cooperative management, and implementation of change in organizations. This allowed for multiple different perspectives to use when dealing with the study's chosen topic.

3.3.2 Case Study

According to Yin (2013), researchers are often able to locate two equally appealing methods or designs that are suited for the topic, allowing for the use of various methods or designs inside the study. The researcher of this study has opted to employ a case study inside an exploratory design to successfully obtain insight into the examined phenomena.

A case study is often used within qualitative research to gain insight and knowledge about a specific case in its own context (Bryman and Bell 2017). What a case is varies from study to study, however, it is common to associate cases with a specific organization, a specific place or a specific individual. The case is heavily relied on its context and the situation that the researcher wants to study (Bryman and Bell 2017). A case study allows for the testing of existing theories and, in the context of exploratory research, to discover new ones (Myers 2020). A case study provides a more nuanced comprehension of certain contexts as well as the capacity to comprehend their effects (Bryman and Bell 2017). As a result, a case study is appropriate for this study, as it intends to deepen insight into Arla's Sustainable Incentive Model in the context of the farmer members.

Yin (2013) emphasizes that a case study should be used when the researchers want the answer to the "who" and "why" questions. According to Bryman and Bell (2017), to answer these questions, the research itself must be distinctly designed, with data gathering methods and data analysis established. This was accomplished by the researcher of this study by a clearly outlined research design.

Choice of Case

Arla can be considered a major organization in the food industry which means that they need to take sustainable responsibility and actively try to lower their environmental impact. However, Arla being a cooperative means that it must take the farmer members into account when creating and implementing any new change (Bijman et al. 2012), which makes their Sustainable Incentive Model a good case to study to gain knowledge in how its members view this change and if it affects their investments. Further, the lack of research on how this subject attributed to the choice of the case.

Selection of Respondents

To effectively choose participants that could help fulfill the study's aim, a purposive sampling was used. This type of sampling entails strategically picking respondents that have knowledge about the specific area and can help answer the aim of the study (Etikan et al 2016). Purposive sampling aims to select participants that are deemed able to appropriately reach the research question, unlike probability sampling, where a representative sample of the population is selected (Bryman and Bell 2017). Using purposive sampling means that the researcher must be clear about what are relevant respondents of the study. Furthermore, purposive sampling is frequently employed in qualitative research with the goal of understanding a specific occurrence, making it appropriate for a case study (Etikan et al 2016; Bryman and Bell 2017).

Etikan et al (2016) state that respondents are picked in purposive sampling based on characteristics that allows the researcher to gain better insight in the studied phenomena. In this study, the respondents were picked based on the fact that they were members of Arla and that they had an opinion of the Sustainable Incentive Model. Using these respondents allows the researcher to gain knowledge through their experiences, which enables relevant sampling for the study.

Using a purposive sampling method has the potential to create sampling biases as the respondents are picked based on the researcher's subjective notion (Bryman and Bell 2017). This can lead to the respondent's lack of perspectives and opinions that make it difficult to generalize their answers on a large population. However, using purposive sampling is not to reach a generalizable result of a large population, rather to gain insight and a deeper understanding for the studied context (Palinkas 2015; Bryman and Bell 2017).

3.4 Data Collection

Triangulation, which involves researching topics utilizing at least three or more different sources of information and approaches, is frequently employed in social studies. Additionally, utilizing several data collection sources helps improve the

overall quality of a qualitative study (Bryman and Bell 2017). To accomplish triangulation in this study, information was gathered through conducting interviews, gathering data from secondary sources, and completing an extensive literature search. *Figure 5* shows how data was collected broadly first and then narrowed down to the specific case of the study.

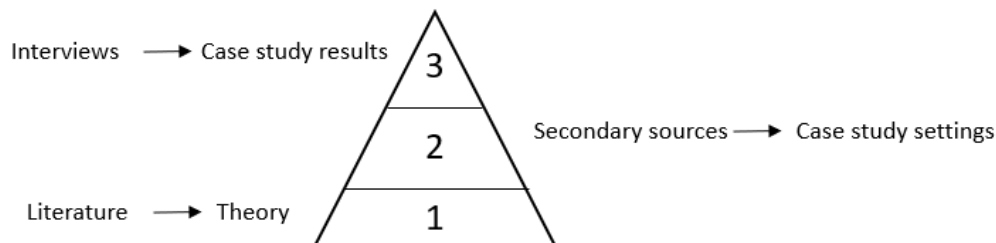


Figure 5. Triangulation of the data, own illustration

3.4.1 Interviews

The empirical data of the study was collected through semi-structured interviews. When conducting this type of interview, the researcher uses a topic guide that includes broad categories of topics. Each topic is accompanied by questions that serve as the foundation for discussion between the respondent and the researcher. Furthermore, semi-structured interviews are often used in exploratory research where the researcher identifies topics that can be used in the interviews (Knott et al. 2022). When the goal of the research is to gain insight into the respondents' perspectives rather than a generalized understanding of the phenomenon, semi-structured interviews are preferred as a data collection method. The primary benefit is that it allows for exploration of the respondents' answers while still being focused on the topic (Adeoye-Olatunde and Olenik 2021).

This kind of data collection method allows the researcher to be flexible and to follow up on certain answers given by the respondents. When compared to structured or unstructured interviews, this flexibility allows for a greater ability to learn about the respondents' specific perspectives (Bryman and Bell 2017). However, flexibility can present challenges, such as the ability to ask the same questions to all respondents, because flexible answers and follow-up questions are provided during the interaction (Knott et al. 2022). Therefore, an interview guide (*see Appendix 1*) as well as a recording of the interview will provide the ability to ensure that all crucial information is collected from the respondents.

Table 1 presents the summary of the interviews which were conducted. Based on the geographical location of the participants telephone interviews were conducted. The reason for choosing a telephone interview over a video interview was due to the preference of the respondents. An added feature of telephone interviews is the sense of privacy for the respondents which (Cachia and Millward 2011)

Table 1. Summary of respondents

Respondent	Title	Date	Duration	Format
Farmer A	Farm owner	2023-11-17	40 minutes	Telephone Interview
Farmer B	Farm owner	2023-11-17	30 minutes	Telephone Interview
Farmer C	Farm owner	2023-11-21	40 minutes	Telephone Interview
Farmer D	Farm owner	2023-11-23	35 minutes	Telephone Interview

3.4.2 Data Analysis

Data analysis can be used to interpret qualitative data to discover patterns, themes, and relationships. The goal of the data analysis is to extract meaningful information that can be used to gain insight into the studied phenomena (Bryman and Bell 2017).

According to Grbich (2013), it is advised to transcribe the data collected through interviews to avoid losing important information. To this end, the respondents' answers were written down through listing to the recording which allowed the researcher to fully analyze the respondents' answers. Bryman and Bell (2017) argue that recording and transcribing interviews allows the researcher to analyze the answers and aids in remembering important information.

To analyze the transcribed data of the study, a thematic analysis method was used. Thematic analysis is a process where the collected data is grouped and connected to themes and patterns which then can be linked with the literature and theories of the study (Grbich 2013). In the study, these themes were precisely defined and described. By clearly outlining the themes, the researcher was able to gain better insight in the answers from the respondents and find similar opinions and viewpoints (Bryman and Bell 2017). Using a thematic analysis can be considered flexible as themes can be changed and not predefined during the course of the study. However, this also means that the researcher must be clear about what is done and how it is done (Braun and Clarke 2006).

Thematic analysis is a flexible method compared to a narrative or content analysis, which means that it can be adjusted to fit in with the context and aim of the study (Bryman and Bell 2017). Being flexible, however, also means that it has the potential to result in incoherence and lack of coherence when themes are developed. In order to prevent this, the study has a strong epistemological position that backs up its empirical claims (Nowell et al 2017).

3.5 Quality Assurance

Reliability and validity have become important factors to ensure the quality of a study, especially in quantitative studies. However, these terms can be difficult to fully apply in a qualitative study (Bryman and Bell 2017). Therefore, Lincoln and Guba (1985) and Guba and Lincoln (1994), coined the criteria of trustworthiness and authenticity to be used as alternatives to reliability and validity in qualitative research. According to Lincoln and Guba (1985) trustworthiness can be further broken down into four parts consisting of credibility, transferability, dependability and confirmability.

The credibility of a study ensures that the qualitative findings are believable and that they appear truthful in the context of the phenomena that is being studied. It is through credibility that the researcher can show that the social reality of the study is correct and acceptable (Billups 2021; Bryman and Bell 2017). To guarantee that the study's findings are credible, individuals from the studied social reality must be able to confirm that the researcher has the same perspective on the specific social reality. This can be accomplished through respondent validation, which consists of allowing the study's respondents to participate in the results to check that the researcher has the same sense of social reality as the respondents (Bryman and Bell 2017). In this study respondent validation has been used to ensure credibility, this has been done by allowing the respondents of the study to take part in the transcription of their interview to ensure that the researcher has captured their social reality correctly. Credibility can further be ensured by triangulation, which involves using multiple sources of data to strengthen the understanding of the phenomena (Billups 2021). Triangulation has been used in the study by collecting data through interviews, literature and the case study.

The goal of transferability is to develop findings in such a way that other researchers may utilize them in their own studies to investigate related phenomena (Billups 2021). To allow for transferability in qualitative research, the study should include thick descriptions that include detailed statements and information about the specific social reality that is studied (Bryman and Bell 2017). In this study, thick descriptions are created in terms of carefully explaining which individuals are interviewed and which questions that were used. Further, the study clearly states what phenomena is studied and how it is studied.

Achieving the dependability part of trustworthiness is done through creating a full statement of the research process. This is something that qualitative researchers achieve through having a clear and fully documented research process (Bryman and Bell 2017). These criteria can further be achieved by using external audits that examine the study's purpose, method and results (Billups 2021). External audits are achieved in this study by the researcher's peers and supervisor.

Confirmability is of importance in a qualitative study as it deals with objectivity and the fact that achieving this is difficult in societal studies. Confirmability means that the researchers own values or background have no impact on the results of the

study (Bryman and Bell 2017). Achieving full confirmability in a study is difficult, however the researcher of this study deals with this by consciously examining how the background, knowledge and values affect the study (Billups 2021). By doing this, the researcher of this study mitigates bias and instead allows greater objectivity.

The authenticity of the research allows for the study to show the intended value of the study, how it will benefit the respondents and if realities that are presented give meaning in the research (Billups 2021). Authenticity in this study is made through gaining knowledge on how members in agricultural cooperatives are affected by sustainable initiatives like Arla's Sustainable Incentive Model.

The interviews of the study were conducted in Swedish, therefore the collected data had to be translated into English. This means that certain words and phrases that does not exist in English had to be translated. Xian (2008) argues that when translating interview data to another language the researchers must take their own translating knowledge, social background and personal experiences into account in order to ensure an accurate translation. The researcher of this study has to their best of their knowledge made the translation as accurate as possible by ensuring that their own experiences and background does not interfere with the translation.

3.6 Ethical Considerations

When conducting any sort of research ethical factors are of importance to consider. This study will have direct involvement of participants through interviews which creates ethical considerations between the researcher and respondents (Bryman and Bell 2017). Ensuring that the participants understand the meanings of voluntary participation, informed consent, anonymity, confidentiality, and privacy are crucial ethical factors (Billups 2021). Voluntary participation is addressed in the study by informing respondents that they can withdraw their participation at any time during the study. When using interviews, informed consent is particularly important and is handled by introducing the respondents to the study's aim. By informed consent, study participants can decide whether to participate and what is expected of them during the study (Bryman and Bell 2017).

It is important to consider the respondents' anonymity and confidentiality. The respondents were informed that their participation would be anonymous since the study would not benefit from knowing their names. Additionally, responses that might jeopardize them, like the size of their farm, would be given in general terms. The respondents had to consent in advance to the possibility of recording the interview in order to prevent any potential misunderstanding of what was said. Finally, the respondents' privacy was protected by only asking questions that were associated to the study and did not pry into their personal affairs.

3.7 Criticism of the Methodology

The main criticisms of qualitative research include its lack of generalizable findings, potential for researcher bias, difficulty in reproducing findings, and time-consuming nature (Bryman and Bell 2017; Hennink et al 2020; Myers 2020). Furthermore, since they occur in a specific context, case studies in qualitative research are difficult to generalize and reproduce (Bryman and Bell 2017). However, Yin (2013) argues that the purpose of using a case study is to acquire greater comprehension for a particular context rather than to find general results that can be applicable to all contexts. Hennink et al. (2020 p, 17) share a similar perspective: “The purpose of qualitative research is to seek a contextualized understanding of phenomena, explain behavior and beliefs, identify processes and understand the context of people’s experiences”.

It can be challenging to replicate and generalize the results of qualitative research since it often employs small samples, like interviews (Bryman and Bell 2017). However, because this study seeks to investigate an unfamiliar subject, the expertise and perspectives of the few respondents are crucial to gaining understanding of the phenomenon (Stebbins 2001; Bryman and Bell 2017).

All kinds of research are always under critique, and the researcher’s role is often criticized for biases, subjectivity and to be affected by the social world, which in turn affects the results of the research (Bryman and Bell 2017). To address this, the study’s researcher ensured that the respondents’ perspectives were presented fairly and accurately. Furthermore, the study’s researchers are aware of the possibility of personal bias and subjectivity in their findings.

4. Empirical Study

This chapter will present the empirical data gathered from the conducted interviews with the selected Arla farmers. The chapter presents the farmers by using the categories: background, Sustainable Incentive Model and investments.

4.1 Farmer A

Background

Farmer A is in his mid-50s and has a conventional dairy farm with 40 cows and around 25 hectares of land that is used for growing feed for the cows. The farm itself has been in the family for around 100 years and has for the last 30 years been owned by Farmer A. The membership in Arla was taken over simultaneously as ownership of the farm. Sustainability is something they view as increasingly important, and overall, it has become more focused on it. The farmer feels like more and more demands are coming from Arla about shifting towards more environmentally friendly practices and that as a farmer you must adapt to these demands. However, when thinking more about the increasing focus on sustainability Farmer A states that “I’m not a fanatic, rather I take sustainability as it comes”.

Sustainable Incentive Model

Farmer A feels like they are as of now learning more and more about the model after it was released and put into effect. Further, the information from Arla about the model has slowly trickled down. Farmer A explains that it felt like the model suddenly appeared. Before the model was put into effect, information meetings were held by Arla which Farmer A could not attend. The farmer had recently had a visit from the organization Växa, which has been contracted by Arla to help the members with the Sustainable Incentive Model. In the meeting with Växa, the farmer got a walkthrough of the possible points and what the farm can do to achieve more. It is with the help of Växa that the farmer is supposed to gain understanding about the model.

The farmer has mixed feelings towards the model as he feels that the information about the model is hard to understand. Further, Farmer A explains the difficulty of understanding what the different points and segments mean, creates more office hours as well as more documents to send to Arla. Most of these documents the farmer is responsible for gathering but some data comes from the advisors as well. On the other hand, he feels that Arla has made it so that if you want to achieve a higher milk price you must follow the model which means you cannot ignore it.

Farmer A feels like the more he visits the Arla member webpage the more comfortable he gets with finding information about the model. However, the farmer feels like their own age influences how easy the information is to find. Farmer A states that he is from a generation that had to learn how to use computers more recently. The model has extensive information which the farmer must spend a lot of time trying to understand.

The model creates more work; however, the farmer feels like more demands on sustainability will come and states that “We as farmers have to do our part for the environment as well”. Further, they view the model as the right way for Arla to go since society nowadays has made a shift towards having more demands on sustainable efforts.

The farm was able to achieve 57 points without making any changes to the production. When deciding which points to fulfill Farmer A states that “I choose the low hanging fruits first”, meaning as a farmer you pick the points you already can do on the farm with minimal effort. He feels that when trying to fulfill new points it must be economically possible for the farm, as the model otherwise runs the risk of becoming counterproductive for the farmer.

Farmer A sees two major drawbacks of the Sustainable Incentive Model. Firstly, they feel that the model creates more work for the farmer in terms of understanding all the information from Arla and that it creates more paperwork to fill out. Secondly, Farmer A feels that as a member it is not possible to know if the model will create new demands in the future that the farmers must follow and what these demands could be. Overall Farmer A views the model as “Something that is necessary and difficult to avoid”.

Investments

Farmer A had, as of the interview, made no new investments regarding the model. However, they had made investments in the past in solar energy which they are able to gain extra points from as soon as the farmer sends Arla a certificate of it, which the farmer describes as “Sending in certificates is like a jungle”.

Farmer A had no thoughts on new investments based on the model, he is however certain that no investments towards biogas will be made. The reason behind this is that any investment that will be made must be economically relevant to the farm and will not be made for the sake of fulfilling a few extra points. However, the farmer views the economic benefits they get from achieving more points in the model as something positive as it could make investments more likely to happen. Farmer A also feels that the size of their farm is something that affects them in the model and in terms of what investments that could be made.

4.2 Farmer B

Background

Farmer B is in her late-50s and has a conventional dairy farm with 40 cows and 70 cattle. Furthermore, the farm has 100 hectares of cultivable land that is used for feed, pasture, and grain production. The farm has been a family farm for around 80 years and Farmer B took over the production and the membership in Arla 27 years ago. Regarding sustainability, Farmer B states “Of course it’s something I think about, but it has not so far affected the choice of production so far”. However, Farmer B do actively think about what can be done on the farm to avoid unnecessary pollution and ensure that the water in the area is not affected by the production.

Sustainable Incentive Model

Regarding the Sustainable Incentive Model, Farmer B says that she knows about the model but that the information from Arla has been lacking. As of the release of the model, Arla called meetings to explain what the model was about, however Farmer B felt that this could have been done on more occasions before the model was released. The main information about the model is from Växa, that through visits to the farm tells the farmer what the points mean and what can be done to achieve them. The information about the model is, however, easy to access through the member webpage on Arla. Farmer B has also through the webpage been able to get information that the model will change in 2024, which she feels is too early as the farmers haven’t gotten used to this version of the model yet. Further, the uncertainty that the model will change soon is adding stress.

Farmer B has mixed feelings about the model as it on one end is a wakeup for farmers to work towards a more sustainable climate, but on the other end Farmer B views the model as unfair. The farmer states that “I personally think that all members of Arla should have the same milk price and it feels unfair that not everyone will be able to achieve that”. Large farms with high amount of capital can achieve a much higher milk price than smaller farms even though they all deliver milk to Arla. Further, Farmer B feels that the model will favor newly created farms as they are able from the start to invest according to the model and achieve the highest possible milk price much easier than older farms. Farmer B believes that farmers that have a large focus on sustainability should be rewarded for their efforts, but it should not be tied to the milk price for all the members.

The Sustainable Incentive Model is something that Farmer B will not be able to follow as she feels that it takes too long to pay back the investment made with the small compensation you get from the points. The farmer states that “A large farm with 200 cows is more incentivized to follow the model as they are able to earn much more with a higher milk price than us small farms”. Farmer B states that she will not go out of their way to follow the model, but rather gather points where it requires the least amount of effort and expensive economic commitments. Farmer B is currently achieving 47 points in the model without having changed anything

on the farm. Therefore, Farmer B feels that all members could have achieved a higher milk price that equals the average points on the farm without getting the new commitments and demands from the model. Furthermore, Farmer B states that “As of now, Arla puts every farmer under the same roof and doesn’t take different farm sizes into account”.

Farmer B views the model as something necessary in today’s discussions of sustainability and that a larger emphasis on sustainable actions is in focus. However, Farmer B feels that Arla puts all the responsibility on the individual farmer and states that “Even though Arla is owned by us members, we are forced by Arla to follow the model if we want to achieve a higher milk price for the milk we produce for Arla”. Furthermore, as a member of Arla the farmer views the model as something that will bring further demands for the farmer in the future.

The Sustainable Incentive Model creates more work for Farmer B in terms of office hours, which is something that they do not have time for. Farmer B feels that the model will over time create even more demand for the farmer and that it will only start out voluntarily and end with demands that all Arla farmers must follow, with or without increased milk prices. Farmer B states that the overall positive thing of the model is that it creates a larger understanding for what kind of sustainability actions the farming community must work towards.

Investments

Farmer B has not made any investments to follow the model, however, she does have plans to invest in solar energy but clearly states that this is something they do for the good of the farm and not to fulfill any extra points. The farmer states that “I feel that any investments that are made will be done for what is best for the farm and not after what the model wants”. Furthermore, Farmer B predict that the model will be beneficial for newly started farms as they can then focus on investing in as many points as possible from the beginning.

Farmer B feels that any investments made must be economically beneficial for the farm and states that “Making new investments just to chase more points is not something that interests me”. Farmer B views the model as something that can potentially “nudge” farmers towards making investments according to the model as they are able to achieve a higher milk price through doing so. As the farm can achieve 47 points in the model without any investments, Farmer B states that “For the time being the strategy is to make the easiest and cheapest investments if I want to get a higher milk price”. Farmer B does feel that the money she gets from the points does make a difference but that the extra money should not have been locked inside the model in the first place.

4.3 Farmer C

Background

Farmer C has a conventional dairy farm with 120 cows and 80 hectares of cultivable land of which 50 hectares is used for growing feed, 20 hectares for pastures and 10 hectares for nature pasture. Farmer C is in his early-60s and has been a dairy farmer for 36 years and a member in Arla for as long. Sustainability is not something that Farmer C currently thinks about in regards of the dairy production. However, it is something that he has gotten more understanding of during the years and strives for having a resource- and economically efficient production. Sustainability is something that Farmer C feels that he has during his recent years thought of more and how to incorporate it in the production.

Sustainable Incentive Model

Farmer C feels that he is learning more about the model as time passes. Arla did arrange a large member wide meeting in around 30 different places in Sweden where they explained about the model and how it works. Farmer C also had a walkthrough of the model by Växa, who explained the points in the model and what the farm can do to achieve more. Farmer C feels that the information about the model can always be improved on, but on the other hand he does not feel that the model is the most pressing issue to understand in terms of running a farm.

Farmer C understands that sustainable actions are something that the commercial chains will put more emphasis on as they try to satisfy the consumer and states that “The model is a necessary evil for us farmers”. Farmer C feels that sustainability is something that is gaining more and more traction and farmers like themselves should utilize the model as much as possible when doing sustainable actions. Farmer C views the model as something that will help increase awareness in the farming community on what sustainable actions can be made on the farm. However, Farmer C feels that the model and its points will go from being voluntary to obligatory to fulfill and states “Arla has done similar things in the past, where they first reward for certain actions that then becomes demands where the rewards are taken away”. Farmer C views the model as a must to follow and not voluntary since Arla has chosen to tie the milk price to it.

Farmer C estimates that he has known about the model for about a year, but that most of it was through the member page with a large emphasis on the Big 5. Farmer C feels that through the meetings with Arla and Växa, the model has been easier to understand and that as a farmer you look at what points you are able to easily achieve. Every point Farmer C achieves gives them approximately €300-€400 extra per year which makes him more inclined to try and achieve more points in the model. Further, going to the meetings about the Sustainable Incentive Model hosted by Arla is an easy way of achieving extra money as these meetings are point based, which makes him more inclined to go to these meetings.

Farmer C does not see any reason why small farms should not be able to follow the model, rather the advantage of having a larger farm like him is that they are able to earn more money through the model than smaller farms. The Sustainable Incentive Model will “nudge” all kinds of sizes of farms towards becoming more sustainable and therefore achieving more points in the model. However, these possible changes will occur to benefit the farm and not because of the points in the model. Farmer C views the model as a competition to achieve as many points as possible and that the model feels economically beneficial for them. He achieves 45 points in the model which for Farmer C, with a production of 100 tons of milk, equals to around €1400 extra a month. Farmer C feels that the extra money is something a farmer cannot live without. The model itself does not create more work for Farmer C in terms of office hours, rather it is the feeling of the model being imperative that is affecting them.

Farmer C believes that more demands on sustainability will come from Arla and states that “No matter what we think about the model, we will have to follow it”. Furthermore, Farmer C feels that as a member in Arla it is impossible to gain an understanding of Arla’s plans with the model and that information will never be able to reach all members. Farmer C has himself been a representative in Arla and knows how the process works, which is why they know that the work and plan with the Sustainable Incentive Model will never be fully aware to the members as it is too complex.

Farmer C has mixed feelings that the milk price is tied into the model since a lot of the points depend on which kind of directions you have already taken on the farm from the start. Further, where your farm is geographically located affects certain points. He feels that the model itself has drawbacks as it creates a new certain duty to follow, which some might not fully believe in. Furthermore, Farmer C isn’t sure that this is the right way forward for Arla, and that flaws in the model will most likely unfold as time goes by. Farmer C believes as of now that the model should be viewed as a living document that will change. Farmer C states that “We will get 20 new points in the model; however, we have not gotten any sort of information of what those points will be”.

Overall Farmer C believes that the Sustainable Incentive Model is something inevitable that is difficult to avoid, even if it is nothing he has asked for as a member. Farmer C does feel that the model is somewhat forcing farmers to follow it since the milk price is tied into it. Furthermore, he believes that the model will, in a few years, be demands from Arla that all farmers must follow without the extra benefit of the money. They go on to explain that Arlagården was like the model in terms of the fact that you got paid for fulfilling certain extra requirements. However, when a certain number of farmers started to follow these extra requirements, it became obligatory for all farmers to do so without extra payment. Farmer C believes that the model is heading the same direction as Arlagården.

Investments

Farmer C has not made any investments towards fulfilling more points in the model but has plans on investing in a spreading ramp for the manure tank. However, this investment is something that they were already planning on doing before the model, since it will soon become a requirement to have. Farmer C states that “Investments that I make will be made because I’ve already planned them”. Farmer C does believe that the model might be a push that subconsciously affects what kind of investments will be made in the future, and that the model might be that extra help that you need to make certain investments.

Although Farmer C feels that the model creates safety when investing, since you know what you will get in return in terms of money, they also feel that the model in the same way is a requirement that they must follow.

4.4 Farmer D

Background

Farmer D has 70 hectares of cultivable land which is mainly used for growing feed and grain as well as pastures for the 50 cows. Farmer D is in his late-50s and has owned the farm for 25 years and has been a member of Arla since then. Farmer D does not have any specific strategies for sustainability regarding their production. However, he tries to use the resources of the farm in the most efficient way to ensure the best economic outcome for the farm.

Sustainable Incentive Model

Farmer D feels that the information about the model has slowly been released more and more. The farmer has been at a meeting that Arla had organized regarding the model, which he only went to because it was a point-based meeting. Further, Farmer D have recently, in a meeting with Växa, been briefed about the model and what their farm can do to achieve more points. Farmer D views that the information about the model has been somewhat lacking and that most of the information about it came after its release. He states that “I’ve felt somewhat stressed about what the model will bring”. However, they do not feel that any extra work has been created for the farmer in regards of the model.

Farmer D knows that sustainability is something that is constantly talked about nowadays and that it brings new requirements and demands for present farmers. He states that “I think that the model is something that we as members can’t avoid if we want to survive as a farm”. Farmer C feels that on one hand the model creates awareness for farmers on sustainable activities, but on the other hand it creates new sorts of demands for the farmers to follow. He does not think that the model can be viewed as voluntary since the milk price is tied into it and states “It has only gotten

more expensive to be a farmer, therefore we need the extra money that the model brings”.

Farmer D was able to achieve 46 points through the model, these points were earned by not having made any changes on the farm. He feels that the extra money that these points give could have been given to the farmers without the model. Farmer D explains that “Most farmers I know of have received around the same points as me, so why that money had to be locked in a model is beyond me”. Farmer D appreciates that farmers who invest heavily into sustainable actions are rewarded for it, however, he feels that the model should not tie the average farmer’s milk price into it. Farmer D understands that Arla must follow the trend of sustainability that is required from the market and the consumers, but that the model has not been asked for by the members. He states that “In the end it does not matter what we members think about the model, if Arla wants it, we have to follow it”.

Farmer D can see that the model would be extra beneficial for farmers who are just starting out, since they are able to invest directly to fulfill as many points as possible from the start. Farmer D believes that older farms, like himself, will not be able to achieve as many points since factors like their already chosen production and where their farm is located affect the ability to achieve points. However, Farmer D believes that the model could help push farmers towards certain sustainable changes since they now get paid to make them.

Farmer D predicts that the Sustainable Incentive Model will come with different changes in the following years, and he already feels uneasy about what the new 20 points will bring. What the new points will include is something that Farmer D has not received any information about. Farmer D states that “It’s impossible to know if the model could ever be finished as I feel that Arla will continuously make changes to it”. He feels that Arla could make it clear when they intend for the model to be complete so that he as a farmer can adjust to the model. However, the farmer believes that the model and the strategy behind it is likely so complex that Arla could never give their members information about the end goal for the model.

Farmer D feels that the model helps bring awareness to the members in Arla about what kind of sustainability action could be taken on the farms. However, since the milk price is tied into the model, he feels obligated and forced towards following it. Farmer D explains “The model will likely go down the same path as Arlagården and become a requirement to fulfill in the end”.

The major drawbacks that Farmer D sees in the model is that it will most likely create new demands for farmers to follow. Further, the farmer feels that it is getting more difficult to get paid by Arla with all the constant changes and demands that the model brings. Farmer D states that “I feel that as a member I can’t do anything else except to be forced to follow the model and whatever demands it will eventually bring”.

Investments

Farmer D has not made any investments to achieve more points since the model was released. He does not have any plans on making any investments to fulfill more points either. Farmer D feels that the points they are achieving without having changed anything on the farm is not incentivizing him to invest according to the model. However, Farmer D believes that the extra points one could achieve through different investments could be a “nudge” that certain farmers need. He feels that any investments that are to be made will be made because it was already planned to make these investments and not because of the model. Further, the farmer believes that the model could serve as a basis for what is to come in terms of investments that farmers will have to make in the future. Farmer D explains that sustainability is not something that can or should be avoided. Furthermore, that Arla will push their members towards sustainable investments with compensations or eventually demands.

5. Analysis and Discussion

Based on the conceptual framework developed in Chapter 2, the collected empirical data will be analyzed and discussed in this chapter. The conceptual framework consists of the concept of a cooperative, agency relationship and organizational change.

5.1 The Sustainable Incentive Model

It can be argued that the empirical evidence has demonstrated that the farmers had the same underlying values about farm sustainability and that it was something they all thought about but did not prioritize. This goes in line with the fact that members who share the same values in a cooperative more easily understand what they want from the cooperative (Nilsson 1996). However, these values do, according to the farmers, not translate into what Arla's values are regarding sustainability on the farm. According to Nilsson (1996), this means that if managers and employees of the cooperative do not have the same values as the members, communication between these parties will not be strengthened. Because of this difficulty in communication the cooperative's agency problem has a potential to develop. An important question in the agency relationship is whether the agent is acting in the member's best interests. Since some farmers contest the Sustainable Incentive Model's linkage to the milk price it can be argued that the agent is not acting in the best interests of the member (Eisenhardt 1989). However, this problem would generally be hard for the cooperative to solve as it is difficult for the members to know if the agent is making the best decisions for them (Cook et al 2000).

The farmers shared the same view of how information on the model was released to them. They agree that they received most of the information after the model was released. Furthermore, after the release of the model the farmers were given a walkthrough of the points by Växa. Arla's decision not to share most of the information about the model until after its release indicates information asymmetry. Information asymmetry is made clear through how the members did not have the same information as Arla had concerning the model. This means that due to the members' limited information about the model the members were not able to know if Arla acted in their own favor when shaping the goals for the model (Arcas-Lario et al. 2014). Furthermore, the farmers agree that they have not received any information about what the changes Arla is planning for the model will bring. This gives an indication that the members are unaware of what the managers and the BoD are planning regarding the changes of the model, which further emphasizes the information asymmetry and agency relationship that has occurred in the cooperative (Arcas-Lario et al. 2014). The indication of the existing information asymmetry in Arla highlights the need for the cooperative to share more

information and goals about the model to their members. Leaving members feeling unaware of important information might lead to an increasing amount of information asymmetry (Macagnan and Seibert 2021).

The risk of information asymmetry is that it has the possibility to lead to moral hazard (Macagnan and Seibert 2021). The empirical evidence gives an indication that the farmers are not entirely satisfied with the milk price being tied into the model. Farmer D highlights the issue “Most farmers I know of have received around the same points as me, so why that money had to be locked in a model is beyond me”. Since the expectations and interest of the members have not been met, it can be argued that moral hazard has occurred (Macagnan and Seibert 2021).

The Sustainable Incentive Model is something that the farmers see a certain degree of risk in. Bijman and Höhler (2023) argue that the implementation of sustainable initiatives in a cooperative will require experimentation, which will bring uncertainty and risks to the farmers. The case study implies that the farmers have a high amount of uncertainty regarding the model since they do not know what more will come from it. Most of them believe that the model will bring demands which makes them uncertain about what to expect. This uncertainty is something that Arla has failed to deal with which demonstrates that the farmers do not believe that Arla is sharing all the information with them. A lack of information to the members might lead to a growing mistrust between Arla and the members, which further could lead to the members leaving the cooperative according to Macagnan and Seibert (2021).

The farmers agree that the extra money from the model is something that greatly helps them. However, the empirical evidence shows that even though it is currently voluntary to follow the model, the farmers feel that they are obligated to follow it, since the milk price is tied into it. Further, this obligation stems from the feeling that they need the money and that they believe that the model will in the end transform from voluntary to obligatory. This insecurity that the farmers feel is something that Arla might have failed to address because of the existing information asymmetry in the cooperative. Lack of clarity on the model’s purpose and whether it will eventually be mandatory for all participants to follow suggests a significant information asymmetry and an agency relationship problem (Eisenhardt 1989; Macagnan and Seibert 2021).

Through the empirical evidence, it can be argued that the farmers have a critical view towards democracy in the cooperative as the consensus is that they are not able to control what Arla does. This is an indication that the model is breaking one of the seven principles called democratic member control in the cooperative (ICA 2018). The farmers do not feel that they are able to affect the decisions that Arla puts forward in the cooperative. One of the farmers points out that the Sustainable Incentive Model is nothing that they have asked for as a member. Further, the farmers feel that even though they are members of a cooperative they cannot raise their concerns about the model, as it is something that they feel will be forced upon them regardless of their opinions. Cooperatives should be democratically controlled through the “one member, one vote”-principle which ensures that the members can

express their views (Barrud-Didier et al 2012). However, according to the case study, this principle seems to be lacking as the members do not feel that their voice matters in decisions put forward by Arla. ICA (2018) defines a cooperative as: “A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise”, which Nilsson (1996) argues that if an organization does not meet this description they cannot be considered as a cooperative. Based on the gathered empirical data from the farmers, Arla seems through their implemented model not to fulfill, or lack certain elements of the description put forward by ICA of what a cooperative is. This makes the farmers feel that the model was not asked for and that their opinions on it don’t matter.

The Risk of Investments

Yu et al (2023) argue that farmers will accept sustainable decision from the cooperative if it creates a better financial outcome for the farm. However, the case study suggests that the farmers do not view the Sustainable Incentive Model as something that can validate new investments. The empirical evidence shows that the farmers are not inclined to make sustainable investments just to follow the model. They share the same consensus that if any investments are to be made, they will have to benefit the farm and not the model. The focus of the farmers’ investment is that they should be economically beneficial. Farmer B gives an indication of how the farmers might think about investments regarding the model “Making new investments just to chase more points is not something that interests me”. Nonetheless, the farmers agree that investments to achieve more points could be made if these investments mean small costs.

The farmers believe that the model might have the ability to nudge certain farmers towards making sustainable investments since they know that it will allow them to achieve a higher milk price. Barton (2000) explains that cooperatives bring members a sense of security towards making investments, which could explain why the model could help create a nudge for the farmers. However, some of the farmers believe that although the model might nudge towards sustainable investments, it is not fair and equal to all members. They argue that the members do not have the same conditions since the location and size of the farm affects how many points they can achieve. This indicates that Arla does not share the members’ values of equality regarding the cooperative (ICA 2018). As some of the members do not believe that the model can be viewed as equal to all members, it gives an inclination that Arla has clashing values with its members.

The farmers view sustainable investments as something that could be considered risky as they could not argue that making investments solely because of the model was economically beneficial. This means that possible sustainable investments are, according to the farmers, something considered as risky even if they achieve a higher milk price. Yu et al (2023) argue that farmers tend to be risk averse which makes them inclined to not take on any new risks such as investments and rather continue their current production without any changes. The case study signals that the farmers believe that investments towards the model are more risky than

beneficial. The farmers' views on risks regarding the model are different from what Arla sees, which emphasizes an agency relationship between Arla and its members. Eisenhardt (1989) points out that a negative effect of an agency relationship is different risk preferences between the principal and the agent. The farmers in this case are the ones who do not share the same views as Arla regarding risks of investments towards fulfilling the model. This points out the different views that the farmers and Arla have on which actions should be taken on the farm and what risk they come with (Eisenhardt 1989). The evidence showcases that the farmers have the same values regarding what kinds of investments they will make, which strengthen the indication that Arla and its members have different values which could lead to a deteriorating communication in the cooperative (Nilsson 1996)

Bijman and Höhler (2023) argue that sustainable decisions from the cooperative might come with new risks for the farmers. The case study points out that some of these risks are connected to demands that the farmers believe will be a byproduct of the model. They believe that the Sustainable Incentive Model, will in the future possibly create requirements. A few of the farmers feel that the model will go from being voluntary to obligatory to follow and that it will no longer give compensation to the farmer in terms of a higher milk price. Yu et al (2023) contend that if farmers are to accept sustainable initiatives they must come with financial incentives. Therefore, the farmers' beliefs that the model will stop giving compensation has the potential to create more dissatisfaction among the members.

5.2 Organizational Change

The empirical data shows that the implementation of the Sustainable Incentive Model was inevitable for the farmers, as they feel that Arla is pressured by society towards making sustainable actions. Al-Haddad and Kotnour (2015) argue that an organization must make changes towards what society deem as important. The farmers agree that the model is something necessary since it is not possible to avoid sustainability.

The farmers have mixed feelings about that the model ties the milk price into it. However, they agree that the extra money they are getting is helping them. When executing change, research shows that an organization should make changes that suites the dynamic context (Al-Haddad and Kotnour 2015). This suggests that Arla's decision to financially reward farmers for earning points in the model is the right choice when it comes to adopting sustainable policies.

Cherim (2006) argues that individuals are an important factor to satisfy if an organizational change is to be successfully implemented. According to the case study, the farmers are dissatisfied with the model and what it might present in the future, which may make it difficult to effectively implement the model. Further, Cherim (2006) states that individuals of the organizations need to be confident that they have knowledge and competence to implement the change. The case study

shows that the farmers believe that they do have the right knowledge and competence to successfully follow the model.

Three-Stage Change Management Model

The Sustainable Incentive Model has moved past the first stage in the TSCMM called unfreezing, where the organization is meant to plan for the change and to push for support and acceptance among the individuals (Brisson-Banks 2010). Based on the empirical data, the farmers were not involved in this stage since most of them had not received any concrete information about what the model would bring and how it would affect them. This stage is of importance and Brisson-Banks (2010) emphasizes that the individuals of the organization must be convinced and motivated to accept the coming change. Islam (2023) contends that the unfreezing stage should allow for the individual to express their opinions about the coming change. However, the farmers' dissatisfaction with how the model had been informed about and their opinions about the model as of the release indicates that Arla did not use this stage successfully. Not fully using the process of unfreezing may have led to the farmers' conflicting sentiments about the Sustainable Incentive Model and their belief that they were not adequately informed about it.

The Sustainable Incentive Model is according to the TSCMM, in the moving stage, where Arla has implemented the change but are still trying to convince the farmers to follow it. This stage is one of the most important stages as this is where the farmers are meant to be completely convinced and adjusted to the model (Brisson-Banks 2010). The case study indicates that Arla is in the beginning of the moving stage since the farmers still are not fully convinced of the model. This is made evident in how most of the farmers believe that the model should not tie the milk price into it. According to Brisson-Banks (2010), individuals may have to learn new ways to do their current work to follow the implemented change, which farmers are able to do as the model does not add extra work that they must adjust to; rather, the problem is that the model may become a demand for farmers in the future. If Arla is to move into the next stage, they must ensure that the members embrace the new change so that the farmers can begin to support the model (Brisson-Banks 2010). The empirical data indicates that the farmers are as of now in the beginning of accepting the model, where most of the acceptance comes from that they believe that the model in the end will become obligatory.

Islam (2023) argues that resistance towards change comes from societal norms or customs and internal resistance to change that might already exist in the organization. The case study points out that most of the farmers will not make any new investments to fulfill the model, which indicates that they are following their own customs and will not make any new changes. To deal with this resistance, Arla would have to ensure that the farmers view the motivation to follow the Sustainable Incentive Model as stronger than their own customs (Islam 2023). The empirical evidence indicates that the farmers might already be motivated to slowly accepting the model as they believe it might become a demand for them to follow in the future. However, according to Islam (2023), using strong motivation might create even more internal resistance towards the model. Brisson-Banks (2010) contends that for

changes to be successful in the long term it needs the individual's approval, which as of now the case study indicates the Sustainable Incentive Model does not have.

The final stage of the TSCMM is refreezing, which refers to when the change is accepted and stable (Brisson-Banks 2010). This final stage seems, as of now, far away before it can be implemented. The empirical data gives the impression that the change has only started, and the farmers believe that more change, other than the planned 20 points, such as demands will come. According to the refreezing stage, it is critical for Arla to explicitly announce when the new change is officially over. As well as acknowledging that their members were able to succeed in the transition, since it will allow for improved trust in the cooperative (Brisson-Banks 2010).

This study provides evidence that the Sustainable Incentive Model will go through more change and that Arla's members currently have a hard time accepting the purpose of the model. Arla has, through motivations such as higher milk prices and the feeling that the model will become obligatory, made their members dependent on the model in some way or another. The model has yet to go through the final stage of TSCMM which will show if Arla is able to actively provide their members with clear information that the change is over. Hence, it can be argued that the Sustainable Incentive Model will be stuck in the moving stage for a long period of time, since Arla has yet failed to provide an ending date for the change.

5.3 Discussion Summary

The discussion gives an indication that the Sustainable Incentive Model is currently in a developing phase where the farmers view it with mixed feelings. Given that farmers may feel pressured or compelled to adopt the model, it has the potential to generate more sustainable agricultural investments, which might ultimately lead to greater sustainability for Arla. The discussion also demonstrates that Arla needs to clearly give their members information about the plans with the model and what the end goal is. As of now, the members feel that the model will transform to become obligatory for all farmers to follow, which shows the importance for Arla to deal with their agency relationship with their members. Furthermore, the discussion highlights the difficult situation Arla is in as a cooperative. Since when implementing sustainable initiatives, they are dependent on that their members view the model as beneficial and invest accordingly. These investments are not something that the farmers currently view as important. Another aspect of the discussion is the clashing values between the farmers and Arla. Furthermore, it showcases the lacking principles such as democracy which the farmers feel is missing in terms of the model.

The discussion further highlights the organizational change Arla is going through and showcases the difficulty the change is facing. It indicates that Arla might have implemented the model before reaching out and asking for feedback from all

members. Furthermore, the discussion shows that the farmers are not convinced about the model and are currently not accepting the whole change.

The findings of the study give an indication that Sustainable Incentive Models might be an effective way of working with sustainability within the cooperative. However, it has the risk of leading to dissatisfaction for the members as they might not be entirely convinced about the cooperative's decision. The findings show that when implementing models like Arla's, they should clearly state the intention of the model and the underlying goals with it. This could otherwise lead to confusion and insecurity for their members. The findings shed light on the complexity of trying to implement sustainable initiatives within a cooperative. Furthermore, they show the importance of dealing with the agency relationship to avoid members questioning democracy and decision making.

These findings are an important contribution towards cooperative sustainability literature. As it emphasizes the importance of ensuring that the members are fully aware of any sustainable initiatives and that they can feel that they can question it. It also implies that a Sustainable Incentive Model might provide a nudge for farmers to invest in sustainable action on the farm, which highlights the importance to further develop these kinds of models. As the study only looked at Arla's model, which can be considered unique, other types of sustainability models within a cooperative context might show members behaving in a different way. Therefore, it can be stated that the study's findings need more research to fully understand how members in a cooperative are affected by sustainability efforts.

6. Conclusion

Chapter six provides the conclusions and addresses the aim and its relationship to the findings of the study. The chapter ends with the contribution of the study.

This study used Arla Foods as a case study, which can be considered one of the largest dairy producers in the world. Their goal is to achieve net zero emissions by 2050 and by 2030 reach 30% lower emissions. To achieve these goals Arla's Sustainable Incentive Model was put into place, with the aim of rewarding and pushing their members to make sustainable actions on their farms. The aim of this study is to gain a better understanding of how farmers of a cooperative view sustainable incentives, as well as if it affects their investments on the farm. With the help of Arla's Sustainable Incentive Model, the aim of this study was reached.

The Sustainable Incentive Model can be summarized by the findings to be viewed with mixed feelings as well as with a degree of uncertainty by the farmers. Arla's distinctive model makes it abundantly evident that they are working to become leaders of change in sustainability and that the model raises members' knowledge of the issue. However, the information leading up to the implementation of the model can be regarded as lacking, as the farmers agree that they learnt most of the information about the model after it was released. The reasoning for this lack of information could be a contribution of several things, however, Arla suffers from an agency relationship with high amount of information asymmetry. The information asymmetry indicates why the farmers feel that the information about the model was lacking. Furthermore, the information asymmetry makes it self-known through that the members feel unassured what more the model will bring. Thus, the Sustainable Incentive Model gives an indication that farmers view it with unease.

The Sustainable Incentive Model's implementation reveals the members' attitudes about democracy in Arla. They feel that they must adhere to the model regardless of their opinions about it. It suggests that members lack confidence that their opinions are considered within the cooperative and that they must comply with all the changes. Moreover, it sheds light on that Arla members feel that suggestions that are voluntarily eventually turn into requirements that they must all abide by. This begs the question of whether Arla is genuinely considering its members' best interests, or if they are only attempting to meet market and society demands at the expense of their members.

In regards of the change Arla as an organization is going through, it can be implied that they have failed to get all their members aboard. The Sustainable Incentive Model has not been fully accepted by the members and the findings indicate that Arla must find more ways to motivate their members other than an increased milk price. As the farmers do not view investments to achieve more points in the model as beneficial. This means that the study finds that the members do not currently

believe that sustainable investments to achieve a higher milk price is economically justifiable. However, the model seems to have succeeded in the terms of nudging members towards sustainable investments, which could possibly help Arla reach their sustainability goals in the future.

It is evident that the Sustainable Incentive Model has issues, and it indicates that the members of Arla feel worried about what more the model might bring. The farmers' perception that Arla is not providing them with adequate information and that they are not being heard inside the cooperative, appears to be one of the key problems. Further, the model highlights a large agency relationship problem that creates information asymmetry and different views on risk within the cooperative. Thus, the members are affected by this agency relationship in terms of lacking information and not knowing what the end goal of the model is.

The Sustainable Incentive Model of Arla is a unique model and one of the first of its kind in the cooperative sector. Meaning that there is insufficient data to use to determine whether similar models are the future for sustainability work within agricultural cooperatives. According to the study, the members of Arla do not agree with the concept, and it requires more well-defined goals. Regarding whether comparable models might work better in other cooperative sectors and if the approach would be more generally embraced, no conclusions can be drawn. On the other hand, it suggests that to prevent member unhappiness from sustainable decisions, cooperatives should first give their members extensive information about what the decision will bring.

Contribution of the Study

The study's findings imply that incentive models in agricultural cooperatives may be utilized to encourage farmers to implement sustainable farm practices. However, the data indicates that these incentives pose potential dangers to members in the form of mistrust in the cooperative and new possible demands. Furthermore, it emphasizes that farmers may view incentive models as negative and risky. Finally, the study's findings emphasize the necessity of member participation and information exchange when creating and implementing sustainability actions in an agricultural cooperative.

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Popular science summary

Cooperative Sustainability: A study of Arla's Sustainable Incentive Model

Agriculture is a vital part of our society and is needed to feed the ever-growing population. However, the agricultural sector is facing pressure to reduce their environmental impact and to create robust and sustainable production. With new demands from society the agricultural sector must change and adapt to create sustainable practices. Agricultural cooperatives make up a large part of the agricultural sector and therefore have an important role to play in sustainability.

Agricultural cooperatives are created by, and for the benefit of the farmers. This raises the question of how cooperatives can implement sustainable actions for their members to follow. Sustainable incentives can be used to create economic benefits for the farmers in return for sustainable actions on the farm. Therefore, the aim of this study has been to gain a better understanding of how farmers of a cooperative view sustainable incentives, as well as if it affects their investments on the farm. How members of an agricultural cooperative are affected by sustainable incentives is crucial to understand, as it has the potential to show if cooperatives can use incentives to motivate their members towards sustainable actions. To gain a deeper understanding of this, Arla Foods Sustainable Incentive Model was investigated. Arla can be considered one of the largest dairy producing cooperatives in the world and therefore they have an important role to play towards creating a sustainable and robust production.

By conducting interviews with members of Arla it was possible to conclude that the Sustainable Incentive Model was poorly received overall. It showed that the members had a difficult time accepting the model and that they would not make any investments to fulfill it. However, it also indicated that the farmers believed that it would push them towards making more sustainable actions in the future. This means that the study contributed to how cooperatives can get their members to make sustainable decisions and that incentive models like the one investigated is possible to use. Furthermore, it shows the importance of listening to the members' opinions and keeping them informed about what the incentive model will bring for them.

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Appendix 1

Introduction

Thank you for taking the time to be part of this study. The study aims to gain an understanding of Arla's Sustainable Incentive Model and how it affects the members and their investments. The interview will take approximately 45 minutes and will consist of open questions that will allow you to share your thoughts and experiences of the model.

I would like to record the interview to avoid any misunderstandings and to ensure that all information gets used. The recording will be deleted after the thesis is completed.

You will be anonymous.

Background

1. How extensive is your production?
2. How long have you been working as a farmer and how long have you been a member of Arla?
3. Is sustainability an important part of your production?

Sustainable Incentive Model

4. How well-read are you of the model?
5. What is your opinion of the model? Positive/negative?
6. How clear is the information from Arla about the model? Is it easily accessible?
7. Is the model easy to follow?
8. Do you see something in the model that is not possible or difficult to follow? In that case what?
9. Will the model create more work, or will it ease the work?
10. Do you believe that it is economically advantageous to try and achieve as many points as possible in the model? Why/why not?
11. Do you believe that the model is the right way for Arla to go to create sustainability? Why/why not?
12. Are you happy or unhappy that it is possible to achieve a higher milk price with the model?
13. Do you see any advantages or disadvantages with the model? Which?

Investments

14. Have you made any investments after the implementation of the model? Does it generate any economical difference?

15. Are you planning on making investments to achieve more points in the model? If yes, which?
16. Does the model make you feel inclined to make investments to achieve more points? Why/why not?
17. Do you feel it is safer to make possible investment towards sustainability if it allows you to achieve a higher milk price? Why/why not?

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