



Coopetition strategies to achieve a more sustainable clothing industry

How do coopetition strategies impact the environmental sustainability of the clothing industry in the context of a circular economy?

ERIK LEE GJESSING

SUPERVISOR

Andreas Erich Wald

University of Agder, 2023

Faculty of Business and Law

Department of Economics and Finance

Preface

This master thesis is the concluding work as the final part in the master's program in Business and Administration at the School of Business and Law at The University of Agder, Kristiansand. The master thesis is written by Erik Lee Gjessing.

The purpose of the thesis reflects on the sustainable impact competition strategies has on the environment while adapting and focusing on a circular clothing industry. The choice of writing about the impact of competition strategies and sustainability, is based on the passion for contributing towards a sustainable future, while having an interest about how the clothing industry works.

Firstly, I would like to thank the case companies and the interviewees that contributed their time to the interviews.

Additionally, I would like to thank my supervisor, Andreas Erich Wald, for guidance, feedback, and advice. Your influences and contributions are highly cherished.

Lastly, I would like to thank Rune, Juliana, Elise, and friends for their support and assistance throughout the writing of this thesis.

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Abstract

The clothing industry is known for their unethical and unsustainable methods of operating. Clothing companies are aware of the issue, and knows a change must happen, but the obstacles are numerous. Innovative strategies and methods must be a prioritization for a development to occur. On the ground of this, coopetition strategies would be a possible solution that could result in a beneficial outcome. Coopetition strategies is when there is a collaboration between competitors, where the goal is to fix a common problem that the companies are struggling with. There is not a lot of evidence when collaborating with competitors since the information is confidential. Therefore, the thesis aims to find if there is a beneficial sustainable balance when collaborating with competitors in the clothing industry. The findings and evidence, results in a qualitative method, which is based on five case companies within the clothing industry and leads to seven semi-structured interviews. A key finding throughout the study, is every case company knows and understands there needs to be a sustainable change. On the other hand, none of the companies want to take control and lead a coopetition strategy, but everybody is willing and seeking a collaboration. The contribution for a sustainable environment and circular clothing industry to occur is difficult. Coopetition strategies may be a possible solution for a beneficial result, if the companies are on the same page, the actions are done right, and a mutual trust is involved.

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List of Abbreviations

CE	Circular Economy
CBM	Circular business model
EMF	Ellen MacArthur Foundation
GS	Google Scholar
ICA	Inductive content analysis

1 Introduction

Businesses today are constantly pursuing new strategies to obtain a competitive edge. A strategy that is gaining attention within different industries are coopetition strategies. Coopetition can be defined as a collaboration between competitors to fix a certain problem in the same industry to gain a beneficial outcome (Bouncken et al, 2015). In certain areas where coopetition strategies are applied, the value of the relationship between the competitors is higher than competing. Sharing and gaining knowledge, experience, and resources, could lead and create a win-win situation for both parts since the reach and growth of the market, will not be an uncertainty. Understanding customer demand and knowing where opportunities could emerge will make the companies first movers and leaders in the industry, which is a huge competitive advantage. On the other hand, coopetition requires cautious planning, same interests, and trust. A coopetition strategy is risky since competitors do not know the outcome before signing the papers. The coopetition strategy must develop a balanced relationship where both parts will get the same amount of the outcome. The balanced relationship will be described in the light of the clothing industry.

The clothing industry emits, approximately 10% of all CO₂-emissions worldwide. This is more than the shipping and aviation industry combined. Clothing contains an average of 70 per cent oil-based material which can have a decomposition time of over 200 years. Today, 85 percent of used clothing ends up as rubbish, which is dumped in large landfills in various places around the world. In addition to the garbage problem, the groundwater around the garbage landfills is contaminated by microplastics during the decomposition of the clothes. This one-time use of clothing combined with limited recycling results in a poor utilization of resources. In other words, the clothing industry has a waste problem (Stefansen, 2022).

The clothing industry understands that getting a competitive advantage will demand sacrifice and change. Change cannot be done over night, since companies must maintain their operations, such as profit and market share. Change and adaptation is hard, and if the goal is a circular clothing industry, the price to pay for single companies, will become too high. Businesses want to remain competitive, and for that to happen, competitors must apply the same changes simultaneously (Ritala, 2011). Therefore, this master thesis focuses on the impact of coopetition strategies towards the clothing industry and the effect it has on circular economy.

1.1 Research question

The clothing industry is broad and there are many unknown factors that could result in a sustainable outcome. The purpose of this thesis is to figure out if cooperation strategies can have an affect and create a sustainable environment while focusing on the clothing industry. There was limited research about the combination of industries and cooperation strategies. The research that was found, resulted in explanations and methods with applying cooperation strategies, but not regarding an industry. On the other hand, there was numerous articles about how to develop a sustainable clothing industry and the environmental outcomes.

Therefore, the research question got formulated and developed on the bases of the literature. On the ground of this, the research question for this thesis is:

How do cooperation strategies impact the environmental sustainability of the clothing industry in the context of a circular economy?

1.2 Structure and content

For the next chapter, the thesis describes the relevance of sustainability, circular economy, circular business models, and cooperation strategies and the correlations it has with the clothing industry. Furthermore, the methodology (chapter 3) describes the research strategy, research design, method of research, data analysis, and the type of quality the methodology has. Additionally, the findings of the research will be explained in chapter 4, followed up by a discussion in chapter 5. Lastly, chapter 6, the thesis will reveal a conclusion if cooperation strategies would have a significant impact towards a sustainable environment.

2 Background and theoretical context

To understand the research question, a justification of the relevant concepts and literature must be explained. In chapter 2, terms such as sustainability, circular economy and cooperation strategies will be explained as a background and theoretical context of the thesis.

2.1 Literature review

This thesis has been conducted as a systematic literature review. A systematic literature has three major steps, while there are eight sub-steps in between. The three major steps are planning, conducting, and reporting. The first two sub-steps are applied in the planning phase. Furthermore, the sub-steps three to seven appear in the conducting phase. Lastly, the reporting phase has only one sub-step, which is reporting the finding, something that chapter four covers (Brereton et al., 2007). Figure 1.1 illustrated the process of a systematic literature review.

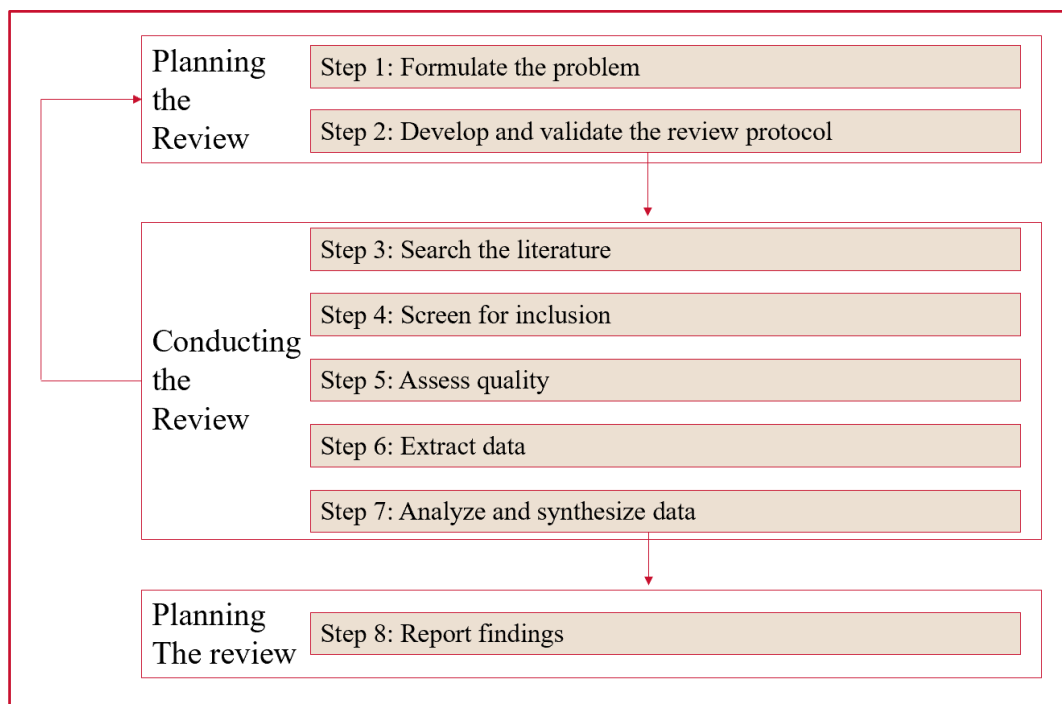


Figure 2. 1: Process of systematic literature review. Adapted from *Lessons from Applying the Systematic Literature Review Process within the Software Engineering Domain*, by Brereton et al., 2007, *Journal of Systems and Software*.

(<https://www.sciencedirect.com/science/article/pii/S016412120600197X?via%3Dihub>)

A systematic literature review starts by formulating the problem. The research problem was motivated from knowledge gained during numerous courses and existing knowledge within

the clothing industry. The clothing industry stretches from environmental damage to unethical labor, something that is not glamorous. Overworked and underpaid workers are two outcomes that often happen. This creates fast fashion, which contributes to pollution and waste, and the waste ends up at landfills. The cloths have a lot of resources in the material, but leaving the rubbish at the landfills, means that the cloths do not get utilized. The whole clothing industry has a problem when it come to overproduction and overconsumption.

Secondly, a review protocol must be constructed. The research question was motivated by the topic selections that were available, existing knowledge and literature. The possible outcomes that can be developed and created with the strategies, could make numerous situations beneficial, if done right. A sustainable environment and circular economy on the other hand, are well-known terms, due to everything that is happening to the planet right now. The search of the literature review process was set in motion by the database Google Scholar (GS). The reason behind exactly GS, is because my university (University of Agder) has recommended it in numerous courses and is the database I have the most knowledge about. GS helps to gain more free scholarly literature retrieval sources and is important to understand the quality and dependability in correlation to the content and scope (Halevi et al, 2017). When using GS, keywords such as “coopetition”, “strategy”, “circular” and “clothing industry” for instance, a controllable number of journal articles occur. When selecting the studies for inclusion- and exclusion criteria, a quality assessment of the data was also examined during the process. Furthermore, reviewing the articles, the abstract, introduction and future research was explored, while being aware of the citation count for each article. When a limited number appears, the amount of journal articles of high quality is manageable to see and read, when finding relevant peer-reviewed papers and academic reviews. The search becomes more accurate and has a higher possibility that it is related to the topic (Brereton et al, 2007).

As for the seventh sub-step, analyzing and synthesizing articles and finding, the literature search was focused on coopetition as one topic, and circular economy with the combination of the clothing industry another topic. The reason behind this choice is due to a lack of articles about coopetition and the combination of another industry. Most of the journal articles that were found, were only on coopetition strategies and the benefits and drawback of different strategies. Since coopetition is a new strategy concept, not many industries/people have heard of it and the affects it can possibly create, which results in a few journal articles (Bouncken et al, 2015, p. 577-579). On the other hand, the combination of the clothing industry and circular

economy, the journal articles were numerous. Both article's searches, were evaluated and identified for what was most important factors and relevant for the field of the thesis.

Throughout the sub-steps three to seven, the information that is found, rewinds back to step one and two. On this basis, it helps the researcher to understand and develop a deeper understanding of the problem (Brereton et al, 2007).

Lastly, the final major step of the literature review is reporting the finding, which is also the last sub-step. Applying all the information together, the research question was developed. According to Okoli & Schabram (2010), a literature review should also point out future research and opportunities. As for this literature review, future research could explore more with cooperation strategies, since there is not a lot of knowledge about it when combining it with various industries. Developing different cooperation strategies for different situations, would be beneficial for all industries and companies. This way, one can develop an understanding of which of the different strategies would be most beneficial for both parts. A further explanation and in-depth understanding of the findings is described in chapter four but introduced in more detail under chapter 3.4.1.

2.2 Sustainability

Sustainability is a broad term and defined in many ways. A recognized definition is “development aiming on connecting the needs of the present without compromising the capability of future generations to meet their desires” (WCED, 1987). Since this thesis is based on cooperation and the clothing industry, if presented from a company level, corporate sustainability is a term that must be mentioned. According to Dyllick & Hockerts (2002), corporate sustainability is described as “sustaining the needs of a corporation’s direct and indirect stakeholders without conceding its ability to meet the requirements of future stakeholders as well” (p.131).

2.3 Circular economy

Circular economy (CE) is a form of sustainability that specifically focuses on the economic process and system involved in consumption and production. In contrast to the traditional

linear economy, where a product’s life cycle begins with approach and design, moves through production and development, is used, and ultimately disposed of, CE seeks to uncouple economic growth from resource consumption (Ghisellini et al., 2016). The goal of CE is to optimize natural resource use by increasing productivity and transitioning from open to closed cycles of materials and energy, as well as adopting less wasteful industrial processes (Geissdoerfer et al., 2017; Ghisellini et al., 2016). This approach helps to reduce waste and promote a more sustainable and circular approach to economic activity (Ghisellini et al., 2016).

Circular approaches

According to EMF (2015), there are six circular actions to make it simpler for companies to adjust of circular principles and enable governments to establish CE policies. These six actions are: Regenerate, Share, Optimize, Loop, Virtualize and Exchange. If combining these six actions together, then ReSOLVE framework is created, shown in figure 2.2. Throughout this thesis, the actions that represent the ReSOLVE framework is used to express what is identified as “circular”.

Regenerate	Shift to renewable energy and materials.
Share	Keep product loop speed low and maximize utilization of products, by sharing them among different users, by reusing them through their entire lifetime, and by prolonging their lifetime through maintenance, repair and design for durability
Optimize	Increase performance or efficiency of a product, remove waste in production and the supply chain (from sourcing and logistics, to production, use phase, end-of-use collection etc.)
Loop	Keep components and materials in closed loops and prioritize inner loops. For finite materials it means remanufacturing products or components and recycling materials. For renewable materials it means anaerobic digestion and extracting biochemicals from organic waste.
Virtualize	Dematerialize resource use by delivering utility virtually.
Exchange	Replace old with advanced non-renewable materials, apply new technologies and choose new products or services.

Figure 2. 2: The ReSOLVE framework. Adapted from Using the ReSOLVE framework for circularity in the building and construction industry in emerging markets, by Iyer-Raniga, 2019, Conference Series: Earth and Environmental Science (https://www.oneplanetnetwork.org/sites/default/files/from-crm/iyer-raniga_2019_iop_conf_ser_earth_environ_sci_294_012002.pdf)

According to the EMF (2015), the CE offers various mechanisms for value creation that are independent of the consumption of limited resources. Additionally, the EMF (2013) states that the complete transition to a fully operational CE is reliant on companies successfully accepting and applying circular principles. Therefore, this thesis adds to the CE research field by employing a perspective of business strategies.

2.4 Circular business models (CBM)

To understand circular economy, circular business models (CBM) must be explained and presented. Business models are defined as how firms acquire and create value, and how this value forms demand and gets transformed to profit (Geissdoerfer et al, 2020). According to Wit (2017), it is how a company administrates its business. Dependent on how close the relationship between business models and competitiveness, the success for a company relies on acquiring a competitive edge over their counterparts in the same industry. In accordance with Chesbrough (2007), this depends on how companies should position them-selves in the marketplace compared to the competition.

Circular business models differ from linear business models. CBM does not lower the number of products after a single use, but instead aims to maximize profits by maintaining the products' fixed value at the highest level of worth possible (Guldmann & Huulgaard, 2020). According to Gusmerotti et al. (2019), the implementation of a circular economy can help conflicts between a company's competitive and environmental impacts, resulting in increased competitiveness and reduced environmental impact. Numerous authors agree that companies can enhance the value of their resources and decrease their resource consumption by implementing closed-loop systems, which is beneficial for both the environment and company (Jensen et al., 2019; Nußholz, 2018; Pieroni et al., 2019).

The correlation between the clothing industry and CBM

In the context of this thesis, circular business models are viewed to be a positive step to assist in making the clothing industry less environmental damaging. According to EMF (2020), clothes must be worn more, have a recycling possibility, and developed with renewable and recyclable inputs. EMF propose promoting the extended use of clothes by renting them out or providing repair services, as well as boosting the sale of second-hand garments. To facilitate the prolonged use of clothes, EMF recommend designing and manufacturing clothes in a way

that enables dismantling, restore, reforming, or reusing. Clothes that are old, a functional system for collecting and sorting garments, known as take-back systems, is necessary if recycling is the goal. Furthermore, the fashion industry is not adopting sustainable solutions quickly enough to balance the harmful environmental and social effects of its fast-paced growth (Lehman et al, 2019).

2.5 Coopetition strategies

Coopetition means collaborating between competing firms. The strategy is both beneficial and risky for a company (Ritala, 2011). Furthermore, the concept of coopetition, means that companies not only compete or collaborate with stakeholders, but it is done simultaneously (Bengtsson & Kock, 2000; Gnyawali & Madhavan, 2001).

Since collaborating with stakeholders, Wit (2017) argues that the environment is a factor the company must understand. It is important for firms to actively participate with buyers and suppliers, while collaborating themselves with industries that have mutual interests, both internal and external. When the collaboration progresses well, value creation develops, but companies cannot forget that they are each others' competitors in conditions of splitting benefits. This is called the "the paradox of competition and cooperation" (Wit, 2017, p. 302).

2.5.1 The advantage of competition

The whole idea with coopetition is a dual advantage. The relationship between companies creates value dependent on combining, requiring, and utilizing valuable resources, which companies access and attain through different kinds of interfirm collaborations (Das & Teng, 2000; Grant & Baden-Fuller, 1995, 2004; Ireland et al, 2002). The value creation starts of when aligning different relevance towards a shared intention and helping to create opportunities for competitive advantage by eliminating external barriers and resolving threats (Porter, 1980).

According to Bouncken et al (2017), the benefits created from coopetition, happen mostly during the launch phase of innovation. Advantages occur in industries where high use of technology is prioritised (Ritala & Hurmelinna-Laukkanen, 2009). Since this thesis is about the clothing industry, technology and machinery plays a huge part (Shamir, 2018).

2.5.2 The risk of cooptation

The advantages of cooptation sounds tempting, but the strategy does not come without any risks. There can be many problems when using cooptation strategies, such as opportunism and knowledge leakage, but it all bottles down to trust between the partners (Cassiman et al. 2009). Firms must carefully balance out the information given and integration against knowledge refusing and protection (Baumard, 2009). Furthermore, firms must realize and understand that they are rivals and friends at the same time, rivals that withhold knowledge and friends that share. Cooptation strategies must have a good balance of both worlds (Bouncken et al, 2015).

2.5.3 The value net

To get a broader understanding of competitive relationships, Walley (2007), claims that an implementation of a value net that is created by Nalebuff and Brandenburger (1997) (figure 2.2). The value net demonstrates how the cooperative and competitive dynamic between companies can shift depending on where their values originate. For instance, a company's "suppliers" provide goods or services to the "customer". If the customer acquires goods or services from a different supplier, it can benefit the first company, making the other supplier a "complementor". On the other hand, if the goods and services from another supplier reduce the value of the first company's contributions, then the supplier is considered a "competitor" (Nalebuff & Brandenburger, 1997).

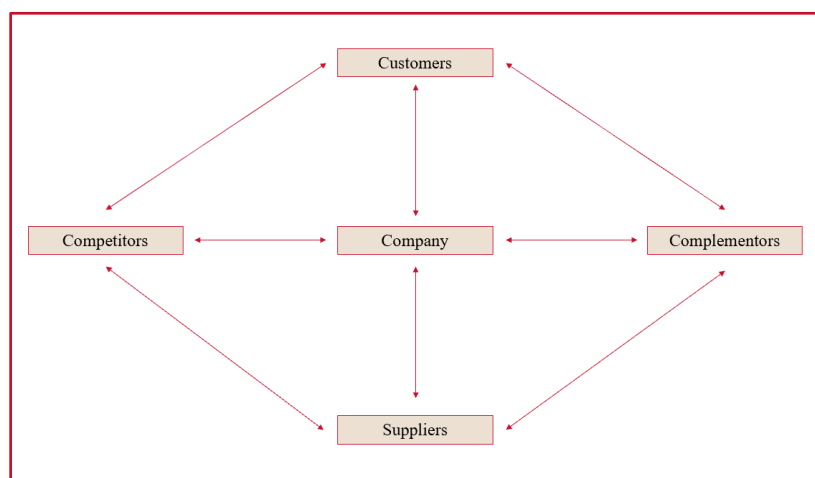


Figure 2. 3: The value net. Adapted from *Co-opetition: Competitive and cooperative business strategies for the digital economy*, by Nalebuff and Brandenburger, 1997, *Strategy & Leadership* (<https://doi.org/10.1108/eb054655>)

According to Walley (2007), the value net has many factors where tension can be created if accepting cooperation and competition all together. The tension is significant, when the information of input and insight about the inter-organizational is realised, since the pressure can affect the dynamics of the knowledge alliance.

The next chapter will cover the methodology.

3 Methodology

In this chapter, the methodology is presented. The chapter will describe the research strategy and process, followed up by the research design. Furthermore, the research method and data analysis are explained, while ending it with a quality evaluation of the methods.

3.1 Research strategy

Research strategy is the orientation of business research, which is built on the researcher's understanding on the correlation between theory and research (Bryman, 2016).

3.1.1 Research process

In table 3.1, the research process is illustrated. It starts of with a systematic literature review of cooperation strategies, to get a sense of the research field and the possible areas for future research. When the literature review was completed, the research question was created. After the research question was created, the second literature review was performed. The correlation between research question and literature review, creates an appropriate analysis for the theoretical context. The theoretical context gives out a sense of how the methods and research design was formed.

Furthermore, the choice of adapting a qualitative method was decided. On the ground of this, the case selection was performed. During the case selection, encountering companies was crucial, while the interview and transcript followed. During the interview, an analyzes was formed based of the discussion and answers given from the interviewees. The whole procedure was edited, and decisions was made and studied during the progression.

For example, the interview guide was edited and improved numerous times during the process before interviewing. The results from conducting interviews, the research question, background, and theoretical content was edited and adjusted to specify the area of the research. The cause-and-effect process had the research from going one research spot to an additional.

To end the research process, a discussion about the findings from the interviews are described, while a conclusion of the research question is revealed.

Literature review	Systematic literature review on cooperation strategies. Described in 2.1.
Development of research question	Based on the literature review, the research question was created. Presented in 1.1.
Second literature review	Described in 3.1.2.
Background and theoretical content	To analyze cooperation and business relations. A direction on where the thesis is heading. Explained in 2.
Qualitative method	Explained in 3.1.3.
Case selection	Five case companies are related to the research question within the specific industry. Explained in 3.3.
Interview guide	Explained in 3.3.2. Presented in Appendix 1.
Data collection	Seven interviews were performed and recorded. Listed in 3.3.
Discussing and answering the research question	The empirical finding is presented in chapter 4. Chapter 5 presents a discussion around the research question.
Conclusion	A conclusion about the research question is explained in chapter 6.

Table 3. 1: The research process and the accompanied steps

3.1.2 Selection process and literature search

The thesis is built up by two literature reviews. The first one gives an overview of areas and research fields for future research, this is called state-of-art review, also known as systematic literature review. The second literature review is based and created from what the outcome became from the first literature review. Since the second literature review is based on the first, it has a more aimed method. The search was pointed down and directed.

According to Lahane et al (2020), to summarize emerging and current trends, research, and values in a specified field, a state-of-the-art review was considered suitable for this thesis, since the thesis focuses on the most present research. When doing a state-of-the-art review, an

identification of ideas, key concepts and new theories are key principles that must be applied (Horodytska et al, 2018).

The additional literature review was about finding and selecting topics after the first literature review was complete. When finding relevant information about cooperation, circular economy and the clothing industry, the different combined concepts was created and followed a deeper understanding of how all of this can work together. All the literature has been developed throughout the time when writing the thesis.

3.1.3 Qualitative research

A qualitative research method was chosen for this thesis. Qualitative research discovers and delivers deeper understandings into actual world problems. The method helps produce hypotheses alongside additional understanding of quantitative data. The main objective of the research is to gather participants' experiences, observations, and behavior. On the grounds of this, qualitative data looks for themes and designs that can be problematic to measure, and it is vital to certify that the context and description of qualitative work are not misplaced, by trying to measure something that is not intended to be measured. A weakness with the method, is that if the quality of qualitative data is weak, the findings can be misleading. This can result in an insufficient summary of a wider sample size. A strength with the research method is the ability to examine attitudes, experiences and behaviors that are difficult to examine thought quantitative methods. Since the questions of a qualitative research is open-ended, the participants get to explain and express why, how, and what they were feeling, experiencing, and thinking at a certain time of when an encounter happened (Tenny et al, 2017).

Qualitative research was chosen over a quantitative method because of internal validity. According to Slack & Draugalis (2001), internal validity creates a cause-and-effect relationship and is measured to the extent of how a study gets established. Internal validity will be explained in more detail in chapter 3.5.1. The research question is a world problem, and the knowledge around it should be people with experience and coming from experts within the field (Tenny et al, 2017). Since the thesis is about cooperation strategies with focus on a circular clothing industry, the method was suitable for further development.

3.1.4 Correlation between theory and research

Inductive approach or bottom-up approach is used in this thesis. According to Thomas (2006), an inductive approach is most common if doing qualitative research, and there are three purposes for that:

- 1) Compact direct documented data into a short, summary system.
- 2) Show pure ties amongst the assessment or research intentions and the summary results gained from raw data.
- 3) Create a structure of the original structure of events or processes that are obvious in the raw data.

Furthermore, the inductive approach was chosen because the process for the research question was best suited for the approach. It starts by looking for observations, looking for patterns from the observations, and results in putting theory to those patterns. In other words, the approach is to create and seek for a better understanding of a topic that is not investigated. The goal with the approach is to explain a phenomena or behaviors. The approach is easy and systematic, if analyzing and producing qualitative data, which will then create valid and reliable finding (Thomas, 2006).

3.2 Research design

According to Abbott & McKinney (2013), research design is explained as the methods of observation that permit scientists to assemble observations in systematic and structured methods. The research design will guide the analysis of research method and explain the aftermath of the data that has been observed.

3.2.1 Unit of analysis

Unit of analysis is defined as “the entity that is being analyzed in scientific research” (Dolma, 2010). For this thesis, the unit of analysis are clothing companies, and how they can work together (coopetition strategies), proceed, and improve the clothing industry as circular. Clothing companies were chosen as the unit of analysis because when taking everything under as one unit, the *how* on why companies collaborate is possible to figure out. Based on

this, strategic purposes have a bigger possibility to be examined, and the result of this, is figuring out *why* companies collaborate (Yin, 2012).

3.2.2 Case design

A multiple case design was chosen for this thesis, built on Greene & Davis's (1984) observations and explanations. Greene & David (1984) argue that there are four main features for a multiple case design, and they are: conceptual framework, sampling plan, individual case studies, and cross-site analysis.

A conceptual framework is how the structure is created. It is the relationship between variables and what the result of this relationship will create. For a sampling plan, the goal here is to develop samples, which hold variations on key factors that are representative of their difference in the target population. If implementing a multiple case design, an individual case study (the unit of analysis) must appear since it is necessary to train a group of data collectors which are roughly the same. Lastly, when doing a cross-site analysis, there are two steps to the process. To generate a working set of propositions and to organise the propositions by topics and subtopics. The meaning behind propositions, are the findings of individual cases (Greene & David, 1984, p. 75-78).

A multiple case design was chosen over a single case design because when studying numerous cases, it becomes more convincing. Since a single case design is about tracking the unit of a single process over a period, the data would be limited (Kratochwill et al, 2010). Regarding this thesis, by researching more cases, an individual will get a greater knowledge on cooperation between clothing companies and understand the *how* and *why* companies would want to collaborate (Greene & Davis, 1984).

3.2.3 Privacy process

Proceeding with a multiple case design, Greene & Davis (1984) argues that handling the cases anonymously is the ordinary thing to do. Since the topic of the thesis is about cooperation, circular economy and the clothing industry, the topic could be seen as controversial. If the topic of your case is controversial, the participants should be referred to as anonymous, because it is protection for the participants, as well as for the case itself (Yin, 2012).

Individuals and companies feel more comfortable when treated anonymous during an interview, which results in an “easier” acceptance for people to participate in the study (Bryman, 2016).

Therefore, in Chapter 4, companies will be identified as Alfa, Bravo, Charlie, Delta, and Echo. During interviews, other companies and brands were mentioned, and it would be wrong to name drop the company or brand, since the other firms have not agreed to participate. Hence, the external companies will be identified as colors.

3.3 Method of research

According to Bryman (2016), a research method is the strategy or process of the selection of sampling method and data collection (p. 12). In figure 3.1 illustrates the steps of the sampling process.

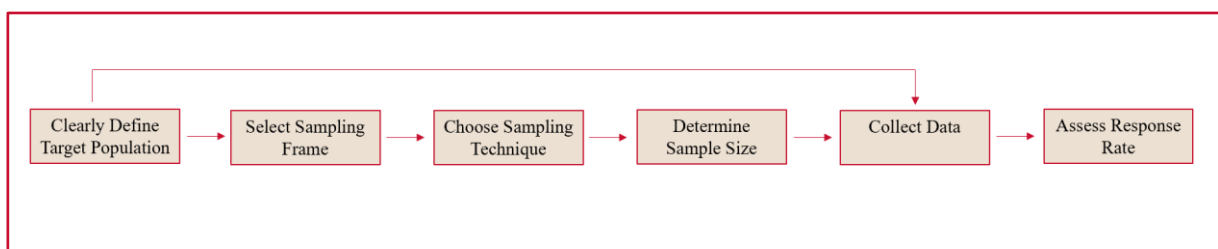


Figure 3. 1: Sampling process steps. Adapted from *Social research methods*, by Bryman, 2016, Oxford University Press. (<https://ktpu.kpi.ua/wp-content/uploads/2014/02/social-research-methods-alan-bryman.pdf>)

3.3.1 Sampling method and design

Proceeding with a sampling scheme, Onwuegbuzie & Leech (2007), argue that there are three different programs to figure out the sampling (p. 240):

- a) Statistical generalization
- b) Analytic generalization
- c) Case-to-case transfer

There are two types of statistical generalizations when doing qualitative research: external- and internal statistical generalizations. External statistical generalization is the reasoning on data separated from a typical statistical sample to the people from which the sample was extracted. On the other hand, internal statistical generalization implicates making overviews

on data obtained from one or more elite participants to the sample from which the participants were taken (Onwuegbuzie & Leech, 2007, p. 240). According to Curtis et al (2000), analytic generalization is “applied to wider theory based on how selected cases ‘fit’ with general constructs” (p. 1002). Lastly, a case-to-case transfer means creating generalizations from one case to another (Onwuegbuzie & Leech, 2007, p. 240).

External statistical generalization is not common in qualitative research since the goal is not to make interpretations about basic population, but gathering awareness into educational, social, and familial processes that occur inside an exact context and location (Connolly, 1998). On the other hand, the other three are very usual in qualitative research, something that is applied in this thesis.

Figuring out the “makers” of interpreting data, the *how* to analyse data comes next. According to Onwuegbuzie & Leech (2007), the *how* of analyzing data comes in two classes: within-case and cross-case. A within-case involves interoperating, analyzing and legitimizing data that can help to clarify “phenomena in a bounded context that make up a single ‘case’ – whether that case in an individual in a setting, a small group, or a larger unit such as a department, organization, or community” (Miles & Huberman, 1994, p. 90). On the other hand, cross-case analysis is when research analyse their data across cases. In other words, the cases that are being analysed across each other are limited (Creswell, 2007).

Since this thesis is applying a multiple case design (explained in 3.2.2), researchers must compare the differences between the cases that have been selected. Onwuegbuzie & Leech (2007) argue that the natural choice of how to analyse data when using a multiple case design is cross-case (p. 243). Something that is agreed with and applied in this thesis.

Before collecting the data through interviews (described in 3.3.2), the approach of sampling strategy must be mentioned. For the thesis, a purposeful sampling is applied. Purposeful sampling is when people/companies/events are carefully selected to gain and provide important information that is difficult to obtain somewhere else (Maxwell, 1996).

3.3.2 Data collection

The data that is gathered from the samples, results in answering the research question (Bryman, 2016, p. 12). According to Barrett & Twycross (2018), interviews collect and give strong data regarding a phenomenon to researchers since the approach is straightforward and

direct (p. 63). A common interview approach, and something that is applied in this thesis, is semi structured interviews. The method is designed to obtain and cover main areas of the research question, while the participants get to explain and discuss their own personal experience of the case (Barrett & Twycross, 2018).

Semi-structured interviews

As mentioned by Barrett & Twycross (2018), semi-structured interviews are best suited for this thesis since it helps to collect relevant data for the research question. According to Bryman (2016), the questions being asked by the researcher (interview guide), are questions that are aimed to cover a particular topic. This strategy of interview is beneficial because researchers can create the questions ahead of time, something that results in the interviewer to be prepared and appear capable (Cohen & Crabtree, 2006). Also, for semi-structured interviews, it is essential to apply a structured cross-case comparison since the study is a multiple case study (Onwyegbuzie & Leech, 2007).

Interviews were done face-to-face and digitally through the video software program Zoom. Interviewees had personal experience with the clothing industry, while being participating with decision making regarding a strategy for business models for competition. It was five case companies and seven interviewees that participated.

All the interviews are recorded and transcribed. Recording made it easier to have an open conversation for both parts, since it was anonymous and there were no “wrong” answers. When transcribing the interviews, a clearer structure of the analysis got created during the process.

Company	Interviewee	Position	Date	Duration (min)
Alfa	1	Regional Manger	09/03/2023	9
	2	Assistant manager	05/04/2023	12
Bravo	1	CEO	21/04/2023	33
Charlie	1	Reginal manager	21/04/2023	14
	2	Assistant manager	23/04/2023	10
Delta	1	CEO & sustainability manager	24/04/2023	14
Echo	1	CEO & Product/brand developer	04/05/2023	24
Total	7			116

Figure 3. 2: A Overview of case companies interviews and interveiwees

The interview guide was created from the content of information, when finding material for coepetition strategies. The interview guide has a total of six questions and is presented in appendix 1. The interview guide did not change during the process. The questions are open-ended, something that can provide the opening for finding new ways of understanding and considerate the topic at hand. How the questions are structured and open-ended, is done because a researcher does not want to guide the interviewees into or follow a certain direction (Cohen & Crabtree, 2006). While having interviews, some of the questions occurred better than others because some of the interviewees were more passionate about different topic then the other topics that were presented.

3.4 Data analysis

This chapter gives an explanation on how the data analysis was executed. The goal for the analysis is to consider evidence equal, develop analytic decisions and prevent alternate interpretations.

3.4.1 Inductive content analysis (ICA)

Inductive content analysis is the method for the data analysis. According to Elo & Kyngäs (2008), the method is an organized and objective technique of explaining and describing events. Also, the technique creates replicable and logical reasonings from texts to the backgrounds of their use (Krippendorff, 1980).

The method can be applied for inductive and deductive approach, while occurring in qualitative or quantitative data. The goal of the study influences how and which the method that will be applied. Since this thesis has applied a qualitative method and inductive approach, the content analysis is viewed as inductive (Elo & Kyngäs, 2008). The motivation for choosing an inductive content analysis is because there is no research on cooperation strategies that is combined with circular economy and the clothing industry. On the other hand, there are numerous articles on cooperation strategies as a unit and circular economy and the clothing industry combined as another unit. The inductive content analysis is illustrated in figure 3.3.

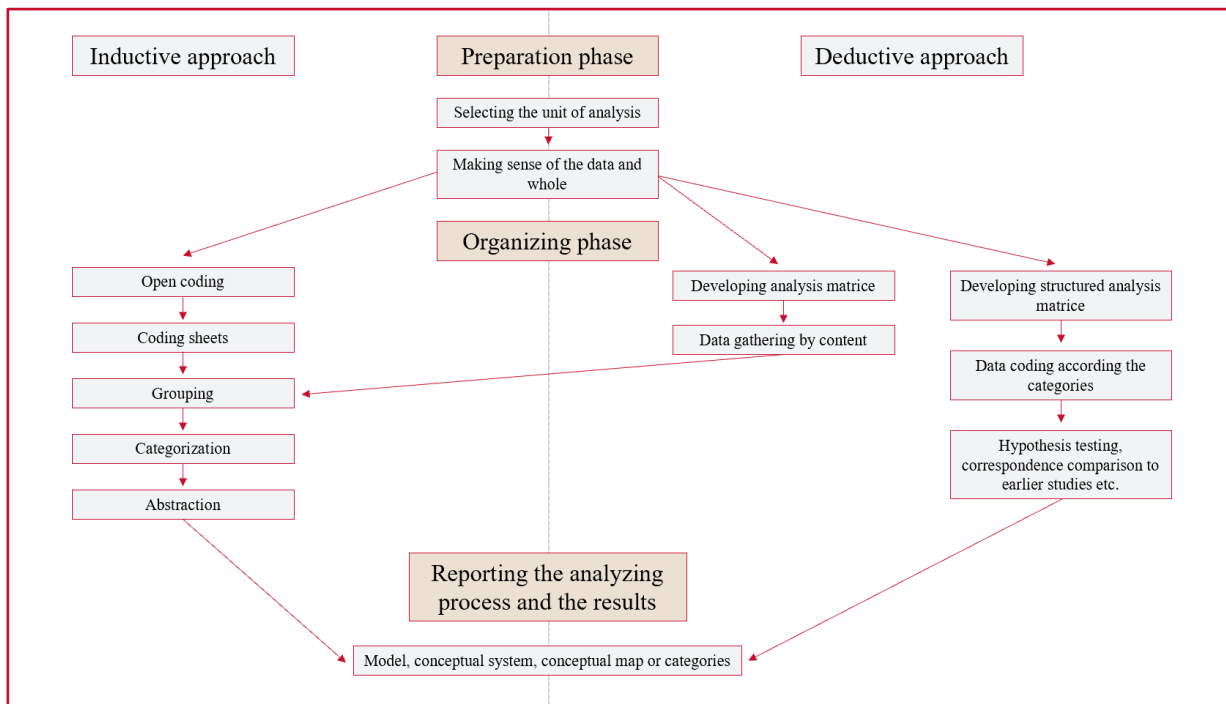


Figure 3. 3: Preparation, organizing, and resulting phases in the content analysis process. Adapted from *The qualitative content analysis process*, by Elo & Kyngäs, 2008, *Journal of Advanced Nursing*. (<https://doi.org/10.1111/j.1365-2648.2007.04569.x>)

An ICA method has three phases where it goes from top to bottom. The first stage is about *preparation*. During the preparation phase, the unit of analysis must be selected, which is explained in chapter 3.2.1. Figuring out the unit of analysis, the next step for the preparation phase is to conduct the interviews. On the ground of this, an establishment of observations gets created and a data overview develops (Elo & Kyngä, 2008, p. 109-111).

Secondly, the *organizing* phase. During this phase, the goal is to transcript the interview and review each one cautiously. Also, open coding, coding sheets, grouping, categorizing, and abstraction are all part of this phase (Elo & Kyngä, 2008, p. 109-111). Open coding is a description of heading and notes in a paper while reading it (Hsieh & Shannon, 2005). When all the headings are written down, described, and developed, the content that is created from this is called for coding sheets (Cole, 1988). Once open coding and coding sheets are in order, the grouping must be categorized and placed in headings. The goal of grouping data is to minimize the number of categories and figure out which of the headings are alike or different (Burnard, 1991). Categorizing means placing groups to where they “belong” while comparing other data. Creating categories aims to describe and provide a phenomenon, this is to generate knowledge and understanding of the topic (Cavanagh, 1997). After understanding, formulating, and interpreting, the researcher settles a decision. The decision is formulated by the topic of research and developed through creating categories, this is called abstraction (Burnard, 1996). The abstraction process of the thesis is illustrated in figure 3.4.

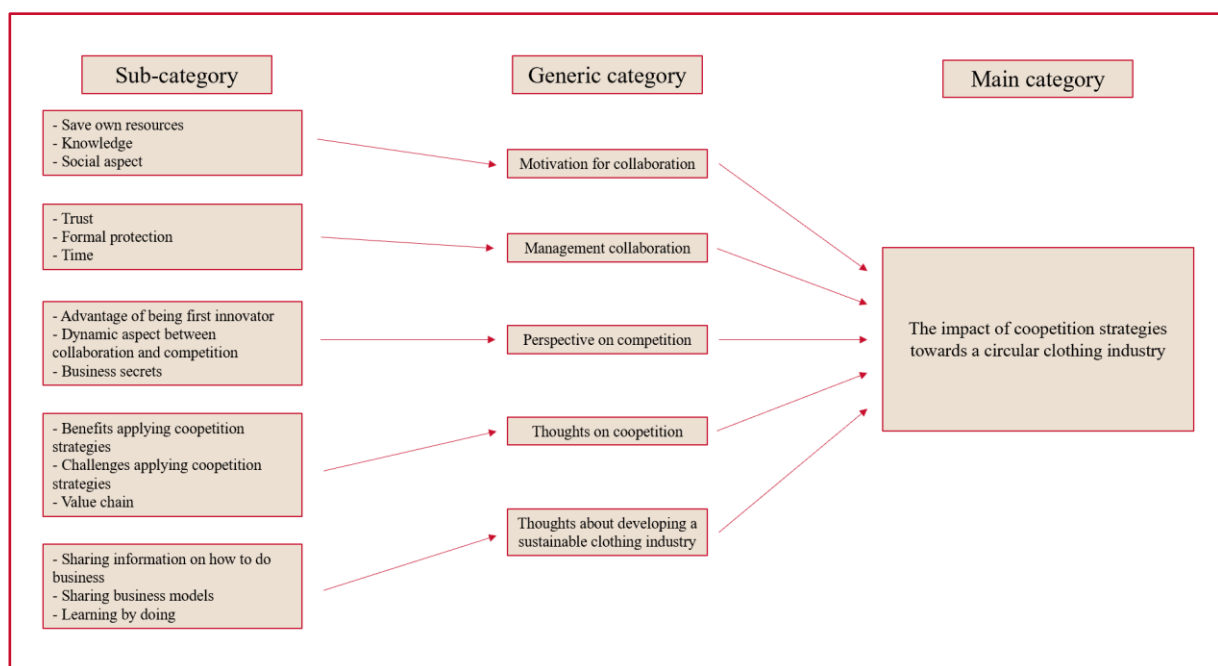


Figure 3. 4: Abstraction process of the thesis

Lastly, *reporting the results* (Elo & Kyngäs, 2008, p. 111). This phase will appear in the next chapter, chapter 4.

3.5 Evaluation and quality of methodology

There are four test that evaluate the quality of the methodology, and they are internal-, external-, construct validity, and reliability (Yin, 2012).

3.5.1 Internal validity

According to Halperin et al (2015), internal validity is the “degree to which observed changes in a dependent variable can be recognized to change in the independent variables enabling trustworthy interpretations about causal relationships” (p. 823). In other words, it is an explanation on why and how events happen, it describes the cause-and-effect (Slack & Draugalis, 2001).

For this thesis, there is a main cause-and-effect relationship, which is behavior and competitive systems. Since the clothing industry has many components when operating, useful devices, and tools, are essential. If these components are not operating, the behavior from those who are collaborating, would have a significant cause-and-effect on each other. According to Bryman (2016), another variable that could influence internal validity, is if the questions from the interview guide were leading. Developing the questions as open-ended, the influence of internal validity will be solved. The questions can be found under appendix 1.

3.5.2 External validity

Findly et al (2021), defines external validity as “the extent to which interferences drawn from a given study’s sample apply to a broader population or other target populations” (p. 368). In other words, it figures out if the findings from a study could be generalized.

For this thesis, the external validity could be limited by the companies that agreed to take part in the study. The companies that have been interviewed are textile, something that can result

in a problem regarding circular economy because generalizing the outcomes external from the industry is difficult to predict.

3.5.3 Construct validity

Construct validity contains discovering the right functioning methods for the concepts being researched (Yin, 2012). Yin (2012) also argues that studying specified concepts, would have the possibility to increase the construct validity.

Coopetition is the focus of this thesis, and a partnership between companies, would mean figuring out the *why* of the research question, while looking for objectives that are strategic for both parts. On the other hand, the *how* of the research question will appear through useful recourses and activities.

To increase the construct validity, Gustafsson (2017) argues that if a study is constructed on multiple sources of facts and proof, the whole case would be more trusting and convincing.

On the contrary, risk is another variable that must be taken in consideration. Since this thesis applied semi-structured interviews, the discussion, interpretations', and understanding from the interviewer and the interviewee could be different. The most efficient way to avoid this, are open-ended questions that can be understood in numerous ways (Bryman, 2016).

3.5.4 Reliability

Reliability covers the reliability of findings over time and a precise version of the whole population that is conducted in the study (Golafshani, 2003, p. 4). Minimalizing the biases and faults are the aim for the study (Yin, 2012).

Since semi-structured interview are a part of the thesis, the interviews can develop as biased. According to Pannucci and Wilkins (2010), interview bias is “the difference between how information is solicited, recorded, or interpreted” (p. 3). The interviews were done was face-to-face and through the video software Zoom. When performing the interviews, it was important to pronounce words correctly and be steady with the body language for those interviews that were face-to-face. Dependent on the knowledge and values of the interviewee, the questions could be affected when answering. Also, the interviewee could be biased

concerning the subject of discussion, this is called unconscious bias. Unconscious bias is when people decide, or judge based on experience, interpretations and assumptions while not being aware of it (Tate & Page, 2018). It is important that the researcher prepares, formulate, and pronounces the words correctly, while not leading the question in a specific direction (Pannucci & Wilkins, 2010).

For the next chapter the findings from the interviews from the case companies will be presented.

4 Empirical findings

For chapter 4, the empirical findings will be mentioned, and the setup of the subchapters are correlated with how the questions were structured and asked. The questions are under Appendix 1. Words that are mentioned from the interviewee, is shown with italic writing and quotation marks, “*illustrated like this*”.

4.1 Company Alfa

Company Alfa is a Scandinavian retail brand and market leader in denim. The company is a subsidiary firm, own by company Red. Alfa has stores in Norway, Sweden, and Finland. The firm’s vision is to deliver the greatest customer experience, while sharing their passion and knowledge for denim. The company focuses on cotton and how it is being used through production for their clothes. The company sells some external brands while producing their own internal brand. Since the production for denim is highly unsustainable, company Alfa aims to minimize the negative impact on the environment, while being aware of the responsibility within ethics.

Perspective and present situation on cooperation strategies

Alfa has not collaborated with competitors yet since it is company Red that is in charge. Instead, company Alfa cooperates with numerous independent actors. This is everything from human rights to climate to ethics. Collaborating is important for company Alfa because it helps them succeed while being helpful towards others. An example from interviewee 1:

“With an organization like Blue, that we are working closely with, is an independent unit that regulates the terms on how the cotton is being used during the process of producing clothes. In other words, human rights and labour are two important factors that company Blue follows up with, while being aware over ecological cotton that is being pick and decrease the usage of chemical throughout the process. Company Blue has numerous collaborations, and if the other companies cannot follow up company Blue’s criteria that have been made, the collaboration will not continue.” – Interviewee 1.

Due to a heavy season change, company Alfa must collaborate with several companies since different textile works better for the different seasons.

“Everything that we get and sell, is certified by company Blue. Also, when the winter comes, company Alfa has certified down feathers by company Green.” – Interviewee 2.

Furthermore, Company Alfa believes that when collaborating with a competitor, both parts should get something out of it. The firm is highly prioritizing the collaboration with company Blue since it is a “strict” relationship. With a “strict” relationship, both companies put themselves in check. By doing so, *“It helps our and their reputation, while achieving the “svanemerke” or “swan brand”, which is hard to get”* (Interviewee 1).

Motivation to pursue a collaboration with competitors

Understanding that the clothing- and textile industry have huge competition worldwide, Alfa realizes that a collaboration could be beneficial. A collaboration between competitors could be the unexpected variable where the industry can change, since the industry needs constant change and innovation to move forward. Both interviewees argue that achieving a sustainable industry, the sustainability development goals must follow, but more importantly working together with competitors to achieve the goals because it cannot be done alone as an individual nor one company by itself. Seeing and observing changes from other competitors, makes it easier to Alfa to adapt:

“It would be optimal if there was a department in the main office in each supply chain, basically a cooperation office. A delegation from those people with knowledge or education within sustainability and recycling. I do not have enough knowledge to trust myself for being the leader of the process, but being delegated would be the best possible outcome for me. The term sustainability is wide, looking at the process from a bird’s perspective is essential.” – Interviewee 2.

People are being affected unconsciously by marketing, and especially tertiary socialization. Alfa admits that *“observing how other external business approach their methods of operating, is motivating for us”* (Interviewee 1). Since, the environmental sustainability within the clothing industry is not optimal, viewing others, inspires company Alfa to innovate and create opportunities:

“We are working with many external brands and one of the requirements for collaborating, are the sustainability development goals the Company Red has selected and prioritized. We need to push actors as far as possible to operate sustainable, while making the environment better.” – Interviewee 1.

Company Alfa is skeptical about collaborating since there are many unknown- and uncontrollable factors that are involved. The process for applying a coopetition strategy to work requires everybody involved to be on the same wave while, making each other better:

“What is important for me to know about a coopetition strategy to work is what and how thing is being solved. Understanding the justifications and trusting the people in charge from top to bottom. Everybody must be on the same wave.” – Interviewee 2.

Since there are many factors the interviewees cannot control, it is important to keep everybody in check. The choice of giving out a specific amount of information from each company is unidentified. Every company has its own choice to what degree of information is necessary and going to be shared. The decision of how and what type of knowledge about the companies is being revealed, could have a significant impact on the competitor and vice versa. This can result both beneficial and disadvantageous.

“It must be transparent. There must be a possibility where I could see how the information process would work out. Also, information about the different people in charge of the coopetition strategy operation is crucial. I would also like the availability to contact the people involved and understand their perspective of the whole thing. It bottles down to trust.” – Interviewee 1.

For Alfa, it comes down to trust for a coopetition strategy to work. The uncertainty of not knowing what the other part is thinking and doing to an extent, is difficult for company Alfa to comprehend.

The beneficial area for coopetition

There are numerous areas for coopetition to work. Areas go from sustainability to sales. With a combination of expertise, research, and resources, the knowledge that could be shared would be beneficial for Alfa. Overcoming the barriers that exist could be a helpful tool for future initiatives and investments. Many areas could be improved in the clothing industry, but for Alfa, a *“vintage and reused outlet store would be optimal”* (Interviewee 2). The whole

business idea is the recycling process. Selling and making people aware over different products and materials that are being used. During the interview, the interviewee explained how the process should unfold:

“Every clothing company has the availability to take in used clothes that people do not wish to have anymore. Since company Alfa is one of the subsidiary firms, own by company Red, the amount and type of clothes can be distributed between the subsidiary firms. Since we are a denim store, we could take every garment of denim that is being delivered in. On the other hand, one of the companies that focus on dresses, can get dresses and so on. The garments are distributed in such a way that the garments reach the right target group and place” – Interviewee 2.

Since the clothing industry has damaging emissions, the focus and problem to fix with the cooperation strategy in this area, is the reduction of throwing clothes away. The lifespan of every garment is different and *“instead of dumping it in huge containers and not knowing what happens to the garment”* (Interviewee 2), the problem can be fixed if Alfa or company Red would receive it.

On the other hand, company Alfa explains that the clothing industry would never be 100% sustainable since there must be production somewhere during the process. A circular clothing industry is hard to imagine, but it can be delayed with cooperation strategies:

“For the clothing industry, it will be impossible to be 100% sustainable, but where the focus must lie if operating with cooperation strategies, is the sustainable process under production. Also, the recycling process of everything that already has been produced. Finding opportunities to get corresponding results, while not being environmental damaging. For example, using lasers instead of stonewashing jeans.” – Interviewee 1.

As for company Alfa, the stonewashing their denim products, is highly unsustainable. Alfa wants to take it step by step and focuses on one thing at a time, since the areas where opportunity lies, are numerous in the clothing industry. Creating new ways of doing business while fixing the existing products, is where the industry should lie. The firm mentions that *“we have to find substitutes to do business”* (Interviewee 2), and with cooperation strategies, the process is possible.

Coopetition within the supply chain

Alfa believes the supply chain can have improvement in all levels. For company Alfa, it is the top management from company Red that decides and delegates most of how the business should be done. Alfa does not have a problem on being delegated, but *“I think it will not be useful to only have it on the top level, but instead, there should be numerous parts that should cooperate”* (interviewee 1). The importance to collaborate with competitors is ranked from where the largest effect for beneficial increase can occur.

“If I was going to choose, it must be during the production part and where the finish products end up. There should be a cross level from both parts, so both parities can follow each other up, and keep the partnership in check for the sake of the strategy that is being used.” – Interviewee 1.

The production of clothes has an enormous effect on the environment. Finding the equilibrium and understanding the amount of each garment that must be produced, is a hard but not an impossible task.

As mentioned, the supply chain is a process where everything can be improved since the supply chain can never be 100% sustainable. Furthermore, where coopetition strategies can have a positive influence would be the *“marketing aspect”* (interviewee 2). Dependent on how well the marketing is during the different seasons has a huge effect on Alfa. Since Alfa is owned by company Red, it is Red that is responsible for Alfa’s marketing. Company Red has also many other companies to take care of, and dependent on what season it is, the marketing is influenced and bet on what is prioritized from Red. But if Alfa could be in charge, the company would have:

“If we market ourselves for a better circular clothing industry with other competitors, it will be seen. Hopefully, a word-of-mouth marketing will be created, and this could influence other companies to do the same and work towards a sustainable future.” – Interviewee 2.

Coming together with competitors can have a significant effect on the marketing. On the other hand, if the marketing would be very good, the sale would also increase. With the sale of garments increase, the production would also increase, resulting in overproduction, something that will not be sustainable for the environment. More of the discussion on supply chain, will be presented in chapter five.

How to improve and create a sustainable clothing industry

Everything can be improved according to Alfa. The most important thing is to be on the same page as the competitors. This is to increase the influence of making the clothing industry circular and sustainable. As for today, Alfa is comfortable with their position when it comes to sustainability because it is company Red that decides. What Alfa can do, is promote the products that has better materials and create awareness for the customers on what type of garments that are more sustainable friendly. With being too comfortable, Alfa believes *“the clothing industry must challenge each other and find new ways to make clothes more sustainable and circular”* (interviewee 1). Making each other uncomfortable, creates opportunities because in the industry, it is a *“huge advantage to become first at something”* (interviewee 2).

On the other hand, Alfa has an internal brand that they are in charge for. The internal brand creates a flexibility for Alfa to create and find new ways of being better. It is their own guinea pig:

The company has gone from using chemicals and a lot of water to produce jeans, to the usage of laser technology. This saves up to 95% of the water that would have been used, to accomplish the same results. The downside with the usage of laser technology is the expense, so not many companies decide to use the method. In the long-term, this will become saving for the environment but not the financial. Hopefully money is not the only prioritization for companies, and perhaps the laser technology will be well-recognized and become a method for others to go the same direction.” – Interviewee 1.

What is interesting about Alfa’s internal brand is that the product designer was a normal employee for Alfa in the past. The person understood the importance of a sustainable change and initiated with laser technology. Now, the internal brand is the next best-selling brand for Alfa because *“we promote our internal brand as our most sustainable brand”* (Interviewee 1).

There is no question that Alfa’s clothes production contains large amounts of water. The usage of water has numerous steps, and *“when producing jeans, the denim material goes*

through something that is called a stonewash” (Interviewee 2). During a stonewash, the wash needs stones:

The stones that are being used for the process, are lava stones. The lava stones get “used up”, so it must be replaced time after time. This is a huge problem since the lava stones gets pulverized and the particles that remains are bad emissions. Our internal brand has replaced the lava stones with plastic stones. The production of the plastic stones is bad for the environment, but in the long term it is better since the plastic stones are reusable. – Interviewee 2.

With plastic stones, the process is bad for the environment, but since it is reusable, the sustainability becomes strong. But not only that, there is still room for improvement:

“Reduce the amount of water that is being used for cotton. Water consumption is a huge, and finding a substitute would be ideal, like laser technology. Finding materials that require less water, while finding better color technics that does not requires a lot of chemicals.” – Interviewee 2.

The usage of water, but also the transportation of materials and finish products harms Alfa’s environmental profile. Since company Alfa is a chain, the transportation goes through almost every city in Norway, and some in Sweden and Finland:

“Alfa is everywhere and when we receive products from our partners, the packaging of the products can be reduced, and the transportation can be shortened. Lastly, reduce the amount of clothes that are being produced.” – Interviewee 2.

From Alfa’s perspective, the company receives too many garments, which results in many campaigns throughout the year where garments are sold for “3 for 2”. This helps Alfa to sell and get rid of old products that they do not wish to have in their storage. 3 of 2 deals are exceptional since the profit increases while the products fly out:

We have 3 for 2 campaigns in our store, and most of the products are on sale as well. The main goal with these campaigns is to get most of our products sold. This results in people shopping on impulse, not because they need it. The ratio of production of clothes is much higher in relation to how many people live here. – Interviewee 2.

On the ground of this, the warehouses become almost empty which means more room for products. And with new products, the production must innovate and produce new garments and prepare for future collections. As mentioned, cotton is not a sustainable solution, but

cheap and a well-used fabric in most of Alfa's products. To improve and create a sustainable clothing industry, the usage of "*hemp is a possible material that could be a substitute for cotton*" (Interviewee 2). With hemp, the fabrics become stronger and more durable. This could possibly result in a product having a longer lifespan. The usage of hemp is slowly being integrated in garments, and some of Alfa's external product has already merged hemp with cotton. Alfa's development of a better sustainable clothing industry is slow, but taking it step-by-step, and trying out substitutes is a good start for a better environment.

4.2 Company Beta

Company Beta is a sole proprietorship run by one person. The whole purpose behind the company is all the clothes produced, is made by her and everything is knitted. The philosophy for company Beta is how the clothing company can become more sustainable where human rights and labor stands as prioritizations. Beta has numerous collaborations with designers, where they focus on local craftsmanship and future production process of knitting.

Since company Beta is the producer, the process starts of when Beta receives recopies of clothes to knit from designers. Beta then knits the products and illustrates and comments if the recipes are reliable and worth going forwards with. After an agreement between designer and producer, company Beta produces a certain number of garments. The garments then get delivered to the designers, where the designers distribute it further. Furthermore, the collaborations of textile are delivered local, the production of clothes is being developed on demand. Since there is only one employee, there is no fast fashion nor mass production of clothes because of capacity.

Perspective and present situation on coopetition strategies

Beta does not have much experience with collaborating with competitors. During the interview, the "competitors" in the knitting industry, are not seen as competitors from Beta's perspective since "*most people that I know knit for fun while being aware of sustainability*" (interviewee 1). Beta has no intention to look for "competitor" because the knitting industry environment is "*if somebody knits, we become automatically friends*" (interviewee 1). On the other hand, a pure collaboration is highly optimal for Beta:

“I work for private companies/people that give out recipes and yarn for knitting. The yarn is sponsored from Norwegian yarn producers. When it comes to cooperation strategies, Beta focuses highly on sustainability. It is important for me to know that the materials are being made, come from good circumstances and since the firm collaborates locally, the transportation process is only time consuming.” – Interviewee 1.

Beta has numerous collaborations, but there are some certain guidelines that are important for Beta before collaborating. Since knitting is a better sustainable choice for creating new garments, Beta is concerned with keeping the sustainability aspect as the main priority. The company is new, and *“if I tend to be working here for a long time, I bet cooperation will occur in the future”* (interviewee 1). Company Beta is currently seeking collaborations with “competitors” because *“there is always room for improvement”* (Interviewee 1).

Motivation to pursue a collaboration with competitors

For company Beta, a future cooperation strategy is available for discussion. As mentioned, there are some circumstances that must be in place for the collaboration to work:

“I must know the fundamental values of the different competitors that want to collaborate. The focus must be on sustainability and the environment. For example, since the yarn is produced in Norway, I then know that the transportation is short.” – Interviewee 1.

For Beta, past experiences and beliefs is the fuel to Beta’s operations. Sustainability is a priority for Beta, and those companies or people with the same mindset, motivate Beta to do even better, when it comes to the environment:

“The ecological aspect is important to me and knowing that the wool taken from the sheep’s, has had a health and good life. Knowing that the materials are not incorporated with synthetic substances is key to me, while knowing that natural and good materials used can be recyclable.” – Interviewee 1.

Beta finds it frustrating that there is next to no recycling opportunities when it comes to clothes in general. This has become a huge problem for knitters, since the remaining yarn after creating garments, has no destination afterwards. Since there are no recycling opportunities, Beta has acted with their own hands and tackled this problem as:

“For us knitters, we have tons of remaining yarn. This has become frustrating, so I often go to vintage stores and search for products that are knitted. I then unknit them and reused the material.” – Interviewee 1

The process is *“time consuming”* (interviewee 1), but the feeling after is rewarding. Knowing that you are doing good for the environment and performing sustainable actions, is helpful for Beta, and doing work become easier. As for today, Beta speaks warmly about their collaborations. Having good relationships with suppliers, the development of promoting and performing a sustainable knitting industry will help the clothing industry to become circular.

The beneficial area for coopetition

The beneficial area for coopetition for the knitting industry, is sustainability. Beta mentions that, *“it is important everywhere”* (interviewee 1), and that everybody has room for improvement when it comes to sustainability. Company Beta was created due to sustainability purposes since Beta feels there:

“Is too little development regarding sustainability and the clothing industry. A lot of people are good at talking, but not doing.” – Interviewee 1.

For Beta and the knitting industry, *“it is crucial that we promote our yarn and reused instead of always buying new”* (interviewee 1). The task is to find the different gaps in the knitting industry where sustainability can create a better change, while being aware of *“of our own consumption”* (interviewee 1).

Furthermore, where there could be a beneficial development for coopetition is the promotion of sustainability. Since sustainability and social media is a huge topic nowadays, Beta’s solution enhances:

“Producers of the knitting environment could market their remaining yarn. We can either give it away or sell it for next to nothing. A coopetition strategy where competitors come together and fix the remaining yarn problem, would be most favorable” – Interviewee 1.

Beta believes that incentives and regulations can make a huge impact on how people operate. The goal to convert the industry sustainable is hard, but *“it is motivating when people act on the problem and to see change”* (interviewee 1).

Coopetition within the supply chain

The supply chain has its advantages and disadvantages. *“All steps are important”* (interviewee 1), but where Beta believes coopetition should operate, are in the early stages, since *“the usage of raw materials and those that produce it, would be my focus based on personal beliefs and experience”* (interviewee 1). During the early stages, the foundation will get created. Beta believes with a good foundation that creates a good working environment, a *“healthy coopetition will develop”* (interviewee 1).

Furthermore, since the supply chain is a huge process, there are many unknown steps towards the finished product. Beta argues that a “see-through” supply chain process would make a big difference on where people would buy their clothes. When buying clothes, the problem is where, what, and why someone buys it. As for Beta:

“If I am going to buy new clothes, I really like and enjoy those companies that are open about their own supply chain. Everything from how they get their materials from how it gets distributed to the stores. Knowing the different steps of the process and other companies they collaborate with.” – Interviewee 1.

A coopetition strategy where every firm has a transparent business model, the companies operating this way will become *“more faithful”* (interviewee 1).

How to improve and create a sustainable clothing industry

A big part of the interview with Beta was about how important sustainability is, therefore, Beta *“cannot count all the steps to make it better”* (interviewee 1). As mentioned earlier, Beta would like clothing companies to be transparent and honest with their doings. As for the next steps to improve and create a sustainable clothing industry, will be:

“Killing the fast fashion trend. Focus on reuse. Fix and repair things instead of buying new. I think being aware of how damaging the whole industry is, would help the industry go in a more sustainable direction.” – Interviewee 1.

Sustainability has become a widely well-known topic nowadays. Beta thinks everybody has a job to make it better, and *“the knowledge about the clothing industry should be taught in school”* (interviewee 1). Making everybody aware of climate change and the effect it has on

our planet, would make the clothing industry “*more dependent on what we got to say, instead of they operating as they please*” (interviewee 1). Beta believes that fast fashion must disappear. Fast fashion creates a trend of overconsumption to humans since some of the stores are relatively cheap and the innovation is outstanding. When a new season is upon us, new collection enters the stores. Preparing for the new season, “*people tend to buy stuff they do not need since in the society today, there is so much pressure to look perfect*” (interviewee 1). Beta hopes that the understanding the damage of fast fashion and being aware of the different emissions created, would “*improve consumers choices*” (interviewee 1).

4.3 Company Charlie

Company Charlie was founded in eastern Norway in the 2000s, and later got bought up by company Pink in the 2010s. Charlie was founded by skateboarders, their vision is therefore on becoming the leader in urban- and streetwear. The firm has stores all around Norway and works closely with the environment they operate in. The products being sold differ from city to city, since the target group is unpredictable.

Since company Charlie is a subsidiary of company Pink, their focus lies on sustainable development. This correlates with Charlie, since at the core of the business, the environment is skateboarder’s playground. The usage of chemicals, materials and emissions are highly prioritized in the supply chain.

Perspective and present situation on coepetition strategies

Company Charlie does not have any collaborations with competitors because company Pink delegates to Charlie to decide what the company should promote and do. Luckily, Pink’s business model correlates with Charlie’s before the company got bought up. This could be looked at as a coepetition strategy since they were competitors before they got bought up. The problem both companies want to fix is increasing a sustainable environment, but still use the resource as “*our biggest playground*” (interviewee 1). How company Charlie explained it:

“We are a skateboard company at core, so the environment is our biggest resource, and it is our job to take care of it. Our clothes and target group are meant for

skateboarding and other urban activities, but of course, the clothes are for everybody.” – Interviewee 1

Charlie is delegated by company Pink, but Charlie has some internal brands they are responsible for. Charlie has collaborations, but not direct competitor, to fix certain problems. Since skateboarding is an extreme sport, clothes tend to get wrecked faster than average. Charlie realized the waste problem and:

“With extreme sports, clothes get destroyed. We got a two-year warranty on our clothes, and most of our garments came in as complaints. The pile of clothes was so big that, that in the 2020s, we team up with a Finnish company, that is a textile recycling company. Materials such as cotton, polyester and polyamide are fibers that are being recycled to reduce the waste problem. When the products are done, we get them back to sell. – Interviewee 2.

For skateboarding, the materials and fabrics that are used must be durable. The good thing about the collaboration is the recycling, but the production must still go on, which is the downside. The initiative to fix the waste problem is great, but after recycling and receiving products, the cycle of clothes coming in and out only starts over again, since Charlie receives their old products back. A positive thing is the development of a circular clothing industry, which Charlie has managed to accomplish. On the other hand, the company is not only built on the collaborations but build up by other components they also must prioritize. The difficult part when operating a clothing company is *“you have to find a perfect balance for everything”* (interviewee 1).

Motivation to pursue a collaboration with competitors

For Charlie, there are some obstacles for cooperation. Cooperation strategy would work if there were trust and a formal written agreement. Charlie has experience that there are competitors that collaborate, but the company explains that they do not want to collaborate with others, only because it *“looks and sounds well on paper”* (interviewee 1). The firm believes greenwashing is a big problem in the clothing industry and believes many companies have already applied it in their business models. Charlie explains that *“the clothing industry is corrupt in many ways”* (interviewee 2).

A collaboration with competitors is hard for Charlie because, firstly, they are doing well for now and secondly, the trust factor is hard to swallow. Also, Charlie explains that time is a huge variable that must be taken in consideration:

“If I was going to collaborate with competitors, I would need a formal written agreement and I must know and trust the people I will be working with. I must know their vision and values and align them with mine. Everybody must share the same vision, so everybody can help and motivate each other. Time will tell if the collaboration takes place. – Interviewee 1

With time, knowledge about the competitor develops. With knowledge, the assessment for a collaboration is clearer. When understanding the values and visions of each company, Charlie believes they will get a “*competitive advantage*” (interviewee 1). A competitive advantage is the end goal, with or without a collaboration, and since trust is highly prioritized, Charlie will not encourage a collaboration, but would gladly listen to what the competitors have to say:

“I would have to have knowledge and gain trust with the people. Understanding each other’s values and motivation to collaborate. I do not think I would pursue a competition strategy myself, but if somebody would come to me with a vision, I would gladly join the party if it correlated with mine.” – Interviewee 2.

The beneficial area for coepetition

“The environment is our focus, so it must be sustainability” (interviewee 1). At the end of the day, Charlie is a skateboarding company, and *“taking care of the environment and making it healthy stands as a prioritization for me”* (interviewee 2).

Charlie has regular customers that come in for a chat, and most of them are skateboarders. Those who skateboard, have *“love for the streets”* (interviewee 2), and friends of Charlie’s are encouraging others to think more sustainable. This is not only motivating for Charlie, but it is motivating to spread the word since *“all of our friends are in it for the same ride and doing it for the greater good”* (interviewee 2). Since sustainability is such a wide topic, it helps to break it down and find the pieces that fit with each other:

“Working for a company like Charlie makes me more aware of how much effort goes into the process. Sustainability is such a broad topic, there are so many factors that must depend on each other for the result to be positive. When I talk to people that I

look up to, their view on sustainability influences me and make me more aware.” – Interviewee 2.

All the products that Charlie receives from company Pink, comes with sustainability notes. This occurs especially when new collections are about to be released, and it becomes “*a reminder to think sustainable*” (interviewee 1). Charlie is satisfied that sustainability is the focus, and:

I am happy that we are already collaborating to fix this, since I feel we are almost pressured to do so, because the problem is much bigger than we understand.” – Interviewee 1.

Cooperation within the supply chain

Charlie cannot name all the beneficial areas in the supply chain, but “*there needs to be greater development and innovation in the production area*” (interviewee 1). It is hard for Charlie to understand which area in the supply chain is more important because there are problems everywhere. If Charlie had to choose, “*the materials that are being chosen to work with, to labor, to the end-product are steps that must be prioritized*” (interviewee 2).

Furthermore, production is not the only part in the supply chain that should be prioritized in the supply chain for Charlie:

“I think the problem is the awareness and knowledge about the process of clothes. This is something we do not get thought of in school but should be a subject. For the supply chain, I think the marketing and sale section would be most suitable. Preparing the future generation of environmental problems, not only in clothes, but in general, will give and influence an awareness of the scale of the problem. I believe that anything can become a priority for a person if it is marketed and introduced in a right way.” – Interviewee 2.

The supply chain is a huge process. Gaining knowledge and awareness now can help for future generations. Everything is important, but what is difficult is to understand which of them “*we should prioritize*” (interviewee 2). Based on this, the dependent variables can develop during the process of a collaboration with competitors, and the aim is to “*try and visualize how it will look like*” (interviewee 1). According to Charlie, most things are scary if one does not know the outcome of something that has been invested. Charlie therefore

believes that a cooperation strategy in the supply chain is almost like a “*shot in the dark*” (interviewee 1).

How to improve and create a sustainable clothing industry

Charlie believes that “*the clothing industry will never be 100% sustainable, but we can slow down the process of emissions*” (interviewee 1). There are numerous ways to improve sustainability, but the problem is that “*people do not take initiative to start an unknown and uncertain process*” (interviewee 2). As for company Charlie, using sustainable materials and reducing waste are two methods of fixing the problem. Charlie is already putting in efforts to make the industry and environment a better place, something that “*makes me happy to work here*” (interviewee 2). The sustainability problem is huge, but educating the consumers, and people in general, “*will have a great impact in the long run*” (interviewee 1).

To improve a sustainable clothing industry, Charlie believes that if people have a clear vision on fixing the sustainability problem, more people will follow and make a change. The vision is not only important, but:

“I think a huge part of on why the clothing industry is so bad, is because there is little information that is being shared overall.” – Interviewee 2.

Another improvement for a sustainable clothing industry, is the transparency of each business. Knowing which companies operate in a good manner, will help customers to separate the good and the bad. Understanding what and where customers spend and use their money, could help increase the sustainable development since “we will know what we are investing in” (interviewee 1). Furthermore, Charlie explains the matter as:

If companies had open supply chain activities, then everybody could view and have a perspective on how businesses operate. Those companies with bad business models, will be shut down, while those that operate “right” will continue to grow. The clothing industry cannot just be shut down, since people needs clothes, but being aware of overproduction and people’s consumption, is something everybody must prioritize.” – Interviewee 1

There are numerous steps for Charlie to improve their sustainability, but collaborating with the textile recycling company, puts Charlie in a good position for future development.

4.4 Company Delta

Company Delta is a new company, which started up in the late 2010s. The company has two stores in Norway. One in southern Norway, while the other one is placed in western Norway. Delta is a company build and based on justice. The firm's vision is to give back to people that does not have the same choices and possibilities, like other countries. Delta has a total of three employees in the company management, while there are around twenty employees under them.

With buying a garment from company Delta, the consumer gives a malnourished child with diseases food for over a week through an organization Purple. The focus is the children since they are the future. Their target group to help are children up to five-year-old. Organization Purple creates a system for children who are admitted, and the whole program last for three months. If the children who are admitted in the program, does not come out healthy after three months, the child get admitted again for three more months.

Perspective and present situation on coopetition strategies

Delta does not have any present situations regarding coopetition strategies. The company has on the other hand, a collaboration not with competitors, but independent organizations. The company has explained it as:

“When we receive a complaint on a garment, or a “wrong” with the production, the used and new clothes cannot go out to the store. We then send it to an organization called Pink, and they repair it and give it away to refugees in Greece and Ukraine.” – Interviewee 1

Delta is fixing a problem to reduce waste and the environment, but organization Pink operates for different purposes then Delta. In other words:

“Since we are already collaborating with organization Pink to fix the refugee and hunger problem, a new collaboration is something we will not ignore. Organization Pink is not a direct competitor, since they are not a clothing company, but it is more as a partnership where we help each other, to help the bigger picture.” – Interviewee 1

Organization Pink wants to fix the reuse and refugee problem. Their vision is to “*put others in front of us and understanding that justice is the problem in our industry*” (interviewee 1). Justice is a high prioritization for Delta, and it is based and influenced by “*our beliefs*” (interviewee 1). Delta’s understanding of how other people are treated, is what motivated them to start the business.

Motivation to pursue a collaboration with competitors

Delta does not have any cooperation strategies as for today since “*we have only been operating for a couple of years and want to focus on ourselves first. If problems appear, we will adapt ourselves to solve it*” (interviewee 1).

As for the collaboration with Pink, Delta has a sense of how it is to collaborate with others. For Delta it is important that:

“There must be a good contact person that I can trust. I am also interested in what the company stands for and their values. Delta is built up on human dignity and searching for good working conditions in every joint of the operation. – Interviewee 1

Many factors must be aligned with Delta’s vision for a cooperation to work. Collaborating with competitors is something Delta would consider but it will take time:

“What I have figured after collaborating with Pink, is that a collaboration should not be complex. The whole point of collaborating is to make both lives easier. It is not a focus, and we want to work as little as possible with it, because it can get very time-consuming. It should almost operate by itself. If we are going to collaborate. Since we are not a big company, a collaboration must be considered due to capacity.” – Interviewee 1

Delta’s collaboration is simple but effective. When the garment is not good enough to sell, Delta simply calls Pink to pick it up. Firstly, Delta gets rid of their waste problem, and secondly, the storage will have space. Finding the right people or organizations when collaborating will “*make a new collaboration with competitors or not easier, since we have been through it once before*” (interviewee1).

The beneficial area for coopetition

Since Delta is a company that is based on justice, reducing the garbage is highly prioritized as well. The area where coopetition could have the biggest effect would be in the sustainability area. There are several reasons why sustainability is the area that should focus on development:

“Throwing away clothes is a negative outcome on the financial and bad for the environment, finding a solution where somebody else can give it away, is beneficial for us and everybody else.” – Interviewee 1

Operating for only a short number of years, Delta has already seen the outcome of clothes being thrown away. The company is slowly trying to find numerous options to fix this, but *“when we fix a problem, another one appears. This is a constant and common cycle since we started”* (interviewee 1). The focus for Delta to increase the awareness and promotion of sustainability will take steps. Since there are many problems in the clothing industry, it is important for Delta to solve the intermediate and temporary problems first, since *“they are more motivating”* (interviewee 1). Focusing on fixing the small problems first within sustainability, the other problems will appear when the time comes. Delta does not believe that doing more is necessary better, since *“the problems will be done halfway”* (interviewee 1), and the all the other problems need a certain amount of attention also, to be fixed.

Coopetition within the supply chain

During the interview, the interviewee said it very simple:

“We need collaboration in every joint of the supply chain.” – Interviewee 1

The interviewee went down to their facilities in person, and observed how things are being done in Bangladesh. Delta is very satisfied with their production and labor, but *“we know that the whole process of the supply chain is damaging for the environment, so it is nothing that we celebrate”* (interviewee 1). Delta finds it frustrating when trying to fix the problem, the process of fixing that problem will possibly make the firm even more damaging for the environment.

Delta would like to collaborate with competitors to fix the supply chain, but since the firm is still growing, their prioritization must lie with themselves first and foremost. If there are any

competitors that want to collaborate, Delta would be willing to form a partnership only if it is not time consuming.

How to improve and create a sustainable clothing industry

For Delta, an improvement for a sustainable clothing industry would be the production and transportation. Delta has their production in Bangladesh, something that is far away. Since sustainability is prioritized, Delta does not ship by plane because of emissions. But instead:

“We transport our products by boat but the problem here is time. If we are going to release a new collection, the planning process will take up to six months. The production of clothes will take two months, the transportation will take three months, while you want the collection to be in our storage one month before releasing.” –

Interviewee 1

To improve the production and transportation of Delta, the company is considering switching their production to Turkey. Delta does not have a goal to overproduce, but rather have good working conditions and quality on their products. Delta is satisfied with Bangladesh, but the transportation is too far:

“How the clothing industry works, is that the cheapest country to produce is China, while Bangladesh is on second, and then you have Turkey. Since Turkey is in Europe, the working conditions and quality of garments are usually better, but more expensive. The transportation time will decrease since the shipment will be by truck instead of boats. It will be for up to 3-4 days. This is more damaging for the environment, but it will make us more flexible. Since our vision is “we need your help, for us to help others”, the more we can help malnourished children. We must keep ourselves in check, because the production can increase drastically when the transportation is so easily available.” – Interviewee 1

Delta is fully aware that this mind of thought is more damaging, but the company believes “if we can improve ourselves and learn from our mistakes, the other problems will resolve when the time comes” (interviewee 1).

4.5 Company Echo

Company Echo is an independent sewing company, where there are two employees that freelance. The company started from a passion for sewing and later became their profession. Echo started up in the late 2010s, and since then, they have been working for multiple Norwegian TV programs, where they decide and create every costume. The firm focuses on using sustainable and eco-friendly materials in every project.

As for today, Echo is working with the Norwegian operas and theatres. Since there are a lot of people involved and the creation of pieces are numerous, Echo has prioritized a high-quality sustainability sewing methods. Dependent on the material, the shapes, and sizes of each person that plays a role in a play, must have custom sewed clothes. Dependent on the sex, height and weight of the person, a lot of materials are thrown away and not reused since the clothes do not fit. Echo has a vision to fix this waste problem and is motivated to increase the company's prioritization on sustainability.

Perspective and present situation on coopetition strategies

The sewing company has numerous coopetition strategies that come and go. Echo needs collaborations with competitors since they do not have the storage, capacity, and financial to operate independent. The coopetition strategies are not directed on fixing a certain problem, but it is more to *“making it easier for ourselves and other”* (interviewee 1). Arguably, this could be a coopetition strategy since the problem is time and in the sewing industry *“time is money”* (interviewee 1).

Echo fixes their problems by adapting to the environment. The problems that are being fixed are not necessary improving a sustainable environment, but the collaborations are more as a *“give and take”* (interviewee 1) setup:

“When it comes to costumes, the different theatres set up different plays. For example, if we have a war play, instead of making new costumes, we rent, buy, or borrow costumes from the different theatres. It depends on which theater because some are private, and some are run by the government.” – Interviewee 1

Dependent on the play and role, influences the amount of waste and conserve:

“When a play is done, we receive the clothes that we have sewed. A good thing here is that, through and across the theatre, we know who and where the costumes have been

produced. Since I have done a lot a war plays, many theatres come to Echo to rent out the clothes.” – Interviewee 1

Echo lets other theatres rent and borrow their garments, since it becomes an income stream for the company. When Echo worked for the “*Norwegian TV programs, we had several collaborations, not direct competitors but with clothing companies that focuses on reuse*” (interviewee 1). During performances clothes that are reused are highly prioritized due to money and time. If the clothes get destroyed during a different play that Echo is not in charge of, the other companies buy it from them. This outcome of coopetition has a good and a bad reason. Firstly, the good reason, Echo gets rid of a lot of material they do not need and have more room for storage. Secondly, the bad, Echo must buy in new materials.

The coopetition strategy is better then not having one, but the result is not optimal for a sustainable environment. The whole process is leaning more towards a circular sewing industry. Since “time is money” for Echo, the company is motivated and willing to collaborate with or without competitors, since the “*industry has room for improvement*” (interviewee 1).

Motivation to pursue a collaboration with competitors

Echo is motivated to pursue collaboration with competitors since there are holes in their industry that Echo wants to fill. The problem is the usage of material and where to put everything:

“Since my job is to make and design costumes, a collaboration where we have access to a shared warehouse, would make my life much easier.” – Interviewee 1

The company needs space to facilitate everything from fabric to costumes. The idea of a shared warehouse will fix the time problem, while being able to organize. If every theater near each other came together to invest in a shared warehouse:

“We could then invest in ten different smoking shirts, and there we can grab and take as we like. Because the adjustments on certain garments are very time consuming.” – Interviewee 1

The firm must adapt to their surroundings because time is precious. Since Echo works for the theatre, everything from actors to production producers must cooperate to make the play or TV show, perfect. Another reason why Echo wants to collaborate more often is:

“For example, the play I’m working on now, two of the performers are going on a vacation, so we will get in two new ones to replace them for the time being. The main role switches from a boy to a girl, so we must sew a new piece and create duplicates. This process is not sustainable at all, but it must be done since it is my living bread at the end of the day.” – Interviewee 1

For Echo, the actions are done because of the reasons. It is not sustainable, but it is necessary. Furthermore, dependent on what type of act is going to be played, is also dependent on their time and workload:

“It is also dependent on how long a garment should be used, because in the industry there are a lot of deposit systems. When doing an act about war, a lot of real oil is used during the act. We cannot keep the clothes after that because it does not go away.” – Interviewee 1

Deposit systems is a solution and another reason why Echo is motivated for cooptation. The reason why cooptation will work in the industry is because *“most of us are in the same bobble and have the same problems. The goal with our jobs is to get performers dressed before an act”* (interviewee 1). But for Echo, there are certain factors that must be in place before a cooptation could be acceptable:

“What is important for me when it comes to cooptation, is that both parts understand that they can get something out of it. The scary part of a collaboration is, that you cannot see if you will get anything out of it. I think that sits far inside for many.” – Interviewee 1

The beneficial area for cooptation

During the interview, Echo said, *“where there could be improvement for the clothing industry is sustainability”* (interviewee 1). Sustainability is chosen as the beneficial area since, *“due to the industry that I work in, we tend to buy cheap material, create a garment, and give it away or throw it in the end”* (interviewee 1).

Echo understands this is a problem, and compares it with different clothing companies while finding solutions:

“As for clothing companies like company orange, that focuses on fast-fashion and using the cheap material like polyester in most of their clothes. It would be more sustainable to switch out the textile and replace it with linen, which is my favorite textile to work with.” – Interviewee 1

Different fabrics tend to function different than others. Echo is a strong believer in linen because:

“Most linen produced is sustainable and during the different seasons we have in Norway, linen “becomes” warm when it is cold and vice versa when it is hot. Also, a lot of fabric that is used, tends to be wrecked when it becomes wet, but linen becomes stronger. The only downside with the textile is how expensive it is. But it becomes quality over quantity.” – Interviewee 1

Coopetition strategies where the goal is to end fast fashion, is a step towards a sustainable future. Understanding the knowledge of each fabric that is being used, will help the emissions to go down while quality on products will go up. Developing a clothing company, will always be unsustainable, and to fix the problem, *“we must not let everybody operate how they want, I think there should be more rules and regulations”* (interviewee 1).

Coopetition within the supply chain

Echo is aware of the emissions cause by the supply chain, and where coopetition should operate is:

“Everything in the supply chain can improve but keeping the production local will get rid of a lot of things”. Transportation, having control of the labor, and prioritizing the quality textile that is being used.” – Interviewee 1

The company said that many people in the sewing industry are facing the same problems. For example, *“most theaters are facing a restricted innovation resource (such as fabric), if solved, the theatres can win of each other”* (interviewee 1). This will create a sustainable process of how to use the different fabrics, while damaging the environment less.

Understanding the problems and finding solutions to improve, Echo must *“use each other to*

become better” (interviewee 1). Sharing and collaborating for resources, will enhance the problem solving of tasks, and speed the process up further than doing it alone.

How to improve and create a sustainable clothing industry

There are numerous ways to improve the clothing industry according to Echo. The company suggests that people must be informed and educated about the maintenance and fabric of clothes. Gaining knowledge about what people wear, would form an awareness and be more conscious about what to buy. Understanding what type of fabrics one should buy, is not the only problem, but also, how to maintain and handle it:

“For example, when somebody has gone for a swim, people tend to hang up their swimsuits in the sun. This ruins and bleaches the materials, which results in clothes being transparent and discolored.” – Interviewee 1

Echo believes that if everybody knows how to maintain different products, the products will last longer. Some people understand the maintenance every garment requires, and after a while, it must go to the garbage or give it away. Before the garments are singing on their last verse, people tend to give their garments to reused stores. Echo encourages others to buy their clothes at reused stores, but there is one problem that must be fixed first:

“Tempt and challenge more people to buy used clothes. I live in Oslo, and the new trend here is to buy used clothes. But the problem here is that the sellers have taken advantage of that, by increasing the prices on product so high that it is not affordable for the average human anymore. I would love to only buy used clothes, but it is not worth it when it comes to the financial.” – Interviewee 1

Where there could be a sustainable improvement is if the prices went down enough, that the average human can afford vintage or reused clothes. The company believes the problem lies within the financial. Echo explains it like:

“When I work, I am on a constant budget. If I am going to have a white t-shirt, I do not go to a reused store for a t-shirt that cost 200 NOK, when I can find it in a mass-production store for 50 NOK. I must have a financial stability over large projects. – Interviewee 1

People that have a lot of money will rarely buy to reused clothes when they can afford new high-end brands. Echo argues that reused clothes are for certain target groups, and everybody in this target group does not have enough money for the circular clothing industry to go around. It becomes an endless cycle where the reused store receives too many garments, that some must be thrown.

Sustainability is huge topic now, and Echo feels it will only become more relevant on how to operate a business. Echo feels pressure from the society and since the environment is a huge topic now, *“I almost feel pressured to buy used even if I cannot afford it”* (interviewee 1).

Furthermore, how to improve and create a sustainable clothing industry is by learning from others. When Echo says “others”, they mean other countries. Every county has different prioritizations when it comes to sustainability, and numerous countries have come much further way Norway:

“If you go to London or Copenhagen, the research on sustainable textile has come so far that Norway does not have a chance to even compete. – Interviewee 1

Taking knowledge from others and learning from people that have gone through the process is a good step towards a sustainable clothing industry. On the ground of this, Echo mentions:

“We must reduce the production, while inform and promote to buy used if you can afford it. Also, short traveling time and good working conditions stand as a prioritization for me.” – Interviewee 1

For Echo, their will always be problems with the clothing industry. *“Important to take every process step-by-step and looking for opportunities on the way”* (interviewee 1).

For the next chapter, a discussion around the research question will be represented.

5 Discussion

The research question is discussed in chapter 5. The discussion leads to an answer based on the content that was presented in chapter 4. The discussion is structured the same way the questions were asked in chapter 4. Questions are in appendix 1. Breaking up the discussion gives a structured and organized understanding of insight on each aspect.

Chapter 5.1 presents the key findings followed by implications in chapter 5.2. Furthermore, chapter 5.3 lists the limitations, ending with chapter 5.4, which is future research.

5.1 Key findings

In this chapter the focus is on seeking and discussing answers related to the research question. Also, the key findings take the theory mentioned, and braid it into the discussion.

5.1.1 The perspective and present situation of cooperation from the case companies

Four out of five case companies have existing collaborations to contribute to fix a sustainable environment. These collaborations are not competitors, but companies that operate independently to address certain problems. For example, company Delta, figured out how to save money while reducing waste and creating more space in their warehouses.

As for the people on the top level, who own company Alfa and Charlie, these people have enough resources and capital to buy up companies or competitors. The reality of having the ability to buy your competitors is arguably better than collaborating. Dependent on what the different firms want as an outcome, can enhance and fuel decisions that are being made. This decision can improve a sustainable environment or a circular clothing industry, and result in more income to the companies.

The location and culture of the company can impact the willingness to collaborate. According to Hamel et al (1989), western companies collaborate with competitors to prevent investments. The western companies are more concerned in lowering the cost and risks of joining new businesses than developing new skills (Hamel et al, 1989, p. 134).

5.1.2 Case companies' motivation to pursue cooperation

During the interviews, every case company mentioned that a cooperation strategy comes down to trust.

Moreover, through the interviews, none of case companies were motivated to take the initiative to develop and form a cooperation strategy, but instead the case companies wanted others to come to them. In other words, the case companies are generally positive to cooperation, but wish to take a passive role. Which results in none of them wanting to become first movers.

First movers have advantages and disadvantages. According to Montgomery & Lieberman (1988), there are three primary advantages for a first mover. Firstly, the first movers gain an advantage in technology, and/or solutions simply because they have started the learning and research and development process before their competitors. Secondly, forerunner firms can prevent rivals in acquisitions of limited assets like physical resources. Lastly, the third advantage occurs when buyers experience increased costs when trying to transfer from the first-mover product to the product of a later competitor in the market.

The disadvantages to first movers will become the advantages for later competitors (in this case, advantage for the case companies that were interviewed). First, the disadvantage for first movers are competitors that free ride on first movers' investments. The second disadvantage is the uncertainty of technology when it comes to innovation. Third, the disconnection of technology that creates new routes for entrance. Lastly, the type of unknown problems makes it difficult for first movers to adapt to environmental development (Montgomery & Lieberman, 1988).

As mentioned, the case companies do not want to start a cooperation strategy, but if asked to join, the companies would consider it. This means all the companies are placed with a disadvantage relative to first movers. Since the late competitors (case companies) free rides on first movers' investments, the advantage for the case companies correlates with Hamel et al (1989) since these firms would be willing to collaborate with competitors if reducing risk and cost. This is typical of Western companies which do not like risk, but rather stability and steady income (Wang & Chung, 2020).

Additionally, according to the competition act (konkurranseloven) in Norway, it is illegal to collaborate with others if the outcome can affect the competition (The Norwegian

Competition Authority, n. d., § 3-10). Since all the case companies are from Norway, this is highly relevant when applying coopetition. Coopetition is a hard term to digest, due to the competitive uncertainty surrounding the outcome before entering into an agreement. The fact that people do not know how the result will turn out before operating is not motivating to pursue coopetition.

5.1.3 The beneficial area for a coopetition strategy to work

Almost every interviewee mentioned that sustainability is the most beneficial area for a coopetition strategy to work. Only focusing on sustainability is a good thing, but there are many variables that could turn out to be disadvantages.

Forming a coopetition within the sustainability area will help companies gather information and knowledge through resources that the competitors have. Gaining knowledge is arguably a good thing, but this may decrease the competitive advantage since company-specific information is shared with competitors. Furthermore, the company that you are collaborating with could possibly have other coopetition strategies with another competitor that you do not know about. Information could be spread and shared, which results in duplicates or replicates of products or strategies (Dotsenko et al, 2021).

Implementing sustainable strategies often are associated with a high degree of cost/investment uncertainty. When it comes to eco-friendly technology, the cost of the products can be high if adopting. Focusing on sustainability is a great commitment, but the financial burden is something every company must prioritize, especially if the companies are small. On the ground of this, sustainable technology is getting more attention in the clothing industry. This is a good thing for the planet, but on the other hand, it can create cultural and social difficulties (Akenji & Bengtsson, 2014). Since the clothing production is mainly based in Asia, the established traditions in these countries are hard to break. This can prevent a sustainable process from being adopted.

There is a need to focus on strategies that could fuel a better sustainable clothing industry. Because sustainability is a relatively new concept, progress can be slow and unpredictable. Depending on the type of coopetition strategy the competitors collaborate on, there is a need for resources and time. If a coopetition strategy were implemented, sustainable development

cannot be short-term. Understanding and gaining knowledge about different aspects of sustainability can help both parts to accomplish the sustainability goal.

5.1.4 A collaboration within the supply chain with competitors

All the case companies agreed that the supply chain can be improved in all stages. According to interviewee 1 from company Delta, going to Asia to their production and observing in detail how goods are being produced, became a culture shock and the realization that the industry must change. During the interviews, the areas identified where cooperation strategies could operate most efficiently were raw materials, marketing, and transportation.

Raw Materials

Raw materials play a crucial part when it comes to the clothing industry. There needs to be development in this area because of the environmental impact. If developing a sustainable environment is the goal, the fabrics that are used as raw materials must change. Mentioned by company Alfa, cotton is not the greatest textile to produce clothes with because of the amount of water that is used. This water use could lead to water shortage, soil degradation and pollution, which will result in affecting the local ecosystem (Chapagain et al, 2006).

Since the production for most clothing industry is in developing countries, the environmental impact can be challenging. Additionally, material for accessories such as gold, must be mined. Mining alone affects deforestation, ground water, and loss of biodiversity, which leads to a reduction in local health (Haddaway et al, 2019).

For some clothing companies, the raw materials create the fast fashion model. Fast fashion is created when the design of a product goes to the retail store to meet trends. The process is quick and new collections appear rapidly. Fast fashion is highly unsustainable, and the outcome of this is overconsumption, short usage periods, and high degree of waste which results in increased pressure on landfills (Chapagain et al, 2006). The reason why fast fashion is a business model is because it creates good income based on relatively cheap raw materials as clothes have a very short life and are not designed to last long. As mentioned, it is highly unsustainable, but the clothing companies that operate with this model have little motivation to stop using the model, especially those companies that are built around that very concept and continuously develop it. The question is whether the fast fashion companies should not be able to operate since it is extremely damaging for the environment. On the other hand, many

people in developed countries would lose their jobs, and large amounts of income to the local society would be gone. Which is more important? The individuals in developing countries that get a job largely producing clothes for people in developed countries, or the environment?

An area where cooperation strategies should be applied across the clothing industry is in the choice of textile. The choice of textile is the company's responsibility, and there are many substitutes. As mentioned by Alfa and Echo, linen and hemp are well suited substitutes for cotton and polyester. Those textiles have a smaller impact on the environment and require less resources (Dotsenko et al, 2021). A focused, industry-wide initiative on promoting and developing more environmentally friendly textiles would ultimately benefit all the actors.

Marketing

In chapter 2.4.1, the advantages and benefits of cooperation are mentioned. It also states that cooperation will have a greater effect if infusing the cooperation during the launching phase (Bouncken et al, 2017). Since marketing is an area within the supply chain that was mentioned from company Beta and Charlie, it correlates with the scholar's perspective. Because marketing is a form for launching something to get people's awareness for a service or product, the attention can be directed to what is important.

Furthermore, consumers are tired of the blending of traditional and digital marketing. The goal for traditional digital marketing is to reach a broad audience, draw more customers while brand awareness develops (Todor, 2016). This form for marketing results in people creating something that is called "banner blindness". Banner blindness occurs when people see numerous ads during a period, which results in not becoming noticeable anymore (Owens et al, 2011). A possible cooperation strategy could be that competitors come together to promote and perform a transparent supply chain. Since the clothing industry produces products, a visualization of where and how materials come from, the people producing them, and giving insight, would make the marketing vulnerable. On top of this, by hiring the right people (people with the same passion), the marketing would seem truthful. When marketing becomes truthful, it becomes authentic and genuine (to a degree). Vulnerable marketing shows that companies are self-reflected, have genuine emotions, and understands that real contributions must develop to solve problems (Brenkert, 1998, p. 9-11).

A transparent supply chain should be mandatory, something company Alfa, Beta, and Charlie talks strongly about. Creating a cooperation strategy where the supply chain is transparent

would improve consumers awareness. Giving out knowledge and educating people on how the clothing industry operates would be a good start for development. For consumers, knowing how companies operate would influence where they should and would buy clothes. Creating a transparent supply chain would make companies vulnerable and those companies with a bad supply chain would eventually disappear since the truth would come out.

The goal of the thesis is figuring out what and how a sustainable development can occur with the use of coopetition strategies within the clothing industry. Applying coopetition strategies towards marketing can make a difference. The aim of the coopetition strategy would be to get rid of fast fashion. Fast fashion is perhaps the worst of the worst, and the coopetition strategy could promote the outcomes from fast fashion. It will take a lot of effort and exposure directed to the companies that have this business model, but this is how the problem could be solved. Coopetition strategies can have beneficial outcomes, but that does not mean the process is pretty. On top of that, the collaboration should then promote materials and garments that are recycled, good quality, and most importantly, have a long lifetime. As a possible result, consumption will decrease because the products will last longer. The emerged competitors that collaborate must create an awareness through marketing for the consumer to make easy choices.

Transportation

Also, mentioned by Delta, the transportation could be beneficial with a coopetition strategy. Since it is cheaper to produce clothes in developing countries which are far away from the major consuming developed countries, companies tend to overproduce, which results in more transportation. Improved control of the entire value could be expected to reduce the amount of clothes that is being produced, would also limit transportation. Additionally, depending on where the clothes are being produced, the transport can happen by plane, boat, or trailers. To solve this problem, a coopetition strategy where competitors come together to ship and transport their collections together would be cheaper for the companies and more environmentally friendly.

As for company Delta, their production was in Bangladesh, which is quite far from Norway. Delta wants to move their production to Turkey, where the quality of clothes and the working conditions are better. The only problem for Delta is the financial since the quality and cost of the textile is higher. On the other hand, the transportation would be by trailers and take up to three to four days, versus three months by boat from Bangladesh. Since the transportation

would take three to four days instead of three months, a possible outcome for Delta is producing less waste, because it would make them more flexible. When having a production in Bangladesh, there cannot be any mistakes since the process is time consuming. The fact that Delta has the availability to redo the collection in a shorter time than before could possibly increase their collections during a year.

5.1.5 The development of a sustainable clothing industry

Everything mentioned above could improve and develop a sustainable clothing industry if done right. The case companies have different prioritizations and some of them are challenging each other, getting rid of the fast fashion trend, transparent supply chain, transportation solutions, and reducing production.

A cooperation strategy that influences an environmental sustainability, would be optimal for the case companies and industry. Challenging each other creates opportunities, and opportunities could be the gaining of knowledge. Gaining knowledge of different materials, will help the research and development area to optimize their understanding. Furthermore, a cooperation within research and development could increase and enhance the sustainable development, and the production methods that will be applied, could get a better insight how to obtain a better recycling process for clothes.

Improve production

Since the production of clothes in the clothing industry is currently highly unsustainable, a cooperation strategy within resource sharing could help reduce the emissions. Sharing production facilities and investing in technology, can speed up the sustainability process. Gaining knowledge and knowing how to use advanced technology, would make the textiles more environmentally friendly. For example, the internal company to company Alfa replaced the usage of stonewash to laser technology. The method of producing is more expensive, but better for the environment. Implementing the usage of laser technology, and applying it in a transparent supply chain, would make consumers aware of how clothing companies operate. Visualizing a transparent supply chain, would make the consumer aware of how the clothing article is created, who is creating it, how the products are being transported, and what happens to the product when bought. In other words, many questions the would be answered. Being more aware creates knowledge and gaining knowledge results in being educated. With

competitors working and being educated together, the clothing industry can perform the transition towards a circular clothing industry.

Circular business models

An implementation of circular business models, mentioned and explained in chapter 2.4, would also be an alternative improvement towards a sustainable clothing industry. CBM models are great on paper, but the question to ask company Alfa, Charlie, and Delta, is how sustainable will the process become if the collected and stored outdated textile got delivered back to Bangladesh and China? Developing a circular process, where the outcome becomes a recycled product, the planning of innovation, transportation, and production, which is not sustainable, would become a new unsustainable issue to take care of. According to Wit (2017), CBM would work best if the production and transportation is in the same country. This correlates with company Beta and Echo, something company Echo has managed to accomplish with reusing, collecting, and renting textile. On the other hand, the other case companies have production all around the world. The implementation of CBM would work and improve, based on the location of the company.

The Paris Agreement

Most people in the clothing industry knows how to improve the industry's environmental footprint because of experience. The problem is not the result, but the process to obtain the result. Obtaining the result is a difficult process, and improvements have been suggested from companies and countries. An example of an alternative process is the Paris agreement. According to Hickel & Kallis (2020), the Paris agreement was supposed to be a gamechanger on paper. For a sustainable world and industries to be prioritized and increased, the Paris Agreement was created. The main problem with the Paris Agreement, is that not every country or company has managed to follow the guidelines in time (Seo, 2017). The process gets delayed, and negotiations must be conducted. If everyone involved with the Paris Agreement would follow every single step accordingly and on time, the sustainability issue would still be there, but the outcome would most likely be different and improved then it is today.

None of the case companies are in the Paris Agreement because of capacity. The Paris Agreement is explained as an example because the clothing industry as an industry, is in the Paris Agreement and of the scale it covers. According to Roy (2021), most countries and companies do not work together. Many of those involved in the agreement (businesses and

nations), prefer to work alone. As a result, the free rider problem is created, and the whole process becomes a market failure because of the unfair share of services or goods that is being distributed (Andresen, 2019; Roy, 2021).

The reason why the Paris Agreement is mentioned, is because of the scale of the sustainable problem it can illustrate. Since this thesis is about the effect cooperation strategies can have on the sustainable clothing industry, it becomes relevant because of the lack of collaboration between competitors across numerous industries. The clothing industry alone accounts for ten per cent of all CO₂ emissions (Stefansen, 2022), which means the industry is a significant part of the problem and therefore also the solution. Cooperation strategies can help the clothing industry towards improved sustainable development, moreover, cooperation strategies should be applied in numerous industries if the sustainable development is going to happen. Studies show that cooperation strategies are new, and the technological industries have achieved the best outcomes from the strategy because of the shared resources since technology is not cheap (Ritala, 2011). Several of the case companies, and in chapter 2.4.1, mentioned that the clothing industry is going in a technological direction, which means the cooperation strategies could have a greater influence on the outcome. Perhaps if two competitors come together first, the others will follow. The collaboration could expand, and more competitors could join in or make their own cooperation.

5.2 Limitations

During the writing of this thesis, potential limitations appeared. The first limitation was the finding the case companies. The process of getting in touch with case companies was time consuming, and on top of that, many companies did not answer. The detail of information was a lot, and the data collection took more time than expected. Dependent on those companies that did answer and those that did not, the outcome of the thesis could be different. On the other hand, the case companies that contributed gave a broad overview of the industry and provided relevant knowledge.

Applying qualitative research has its disadvantages. The process is time-consuming, the samples can be too small, the questions asked could be confusing and the answers can be biased. Since this thesis is written by one person, the interpretations are subjective and one-sided. The validation and perspective of another person could have improved the work.

5.3 Future research

The term “coopetition strategies” is not well known. There are numerous aspects and possibilities to increase the knowledge of the term and gain an understanding on what to do for future research. The research of coopetition strategies was limited, and few industries/companies/people know about it. Future research where coopetition strategies are applied with other industries would give a better understanding on how coopetition strategies work, which can also influence others to apply it. The more knowledge there is about a topic, the more sides would be interpreted.

Since the supply chain of the clothing industry is highly unsustainable, and ultimately results in huge piles of waste at landfills, it is believed that the industry should focus on collaboration with competitors to improve recycling and thus improve the industry’s environmental footprint and sustainability. Gaining an understanding of how to manage the different materials, opportunities would appear, and this can contribute to value creation. Studying and figuring out about the recycling process, would lead to a strong sustainability in the long run. Strong sustainability is when all natural assets are maintained (Neumayer, 2012). When the goal is strong sustainability, the process starts of unsustainable, but ends up enhancing the sustainable process ultimately. The damage is arguably a necessary evil to develop the greater good.

Lastly, chapter 6 of the thesis, will reveal and explain a conclusion about the research question.

6 Conclusion

Coopetition strategies have the potential to assist the clothing industry and make a sustainable difference. With all the information that is found and given, coopetition strategies could have an impact on environmental sustainability of the clothing industry while being circular. The skepticism to coopetition expressed by the case companies is believed to mainly be due to a lack of understanding of both the potential of coopetition and its limitations. As mentioned, the clothing would never be hundred per cent sustainable since the process must apply new production. Companies want to sell as much as possible to gain income and obtain potential competitors' advantage if the companies are first movers. With producing more, the companies will give customers more alternatives to buy. As a result, people will overconsume. If people are environmentally conscious of what and where their clothes are bought, the consumption will decrease because of awareness. Assuming the industry is not interested in reducing its sales and income, it should make it easier for consumers to make the right choices by encouraging the development of more environmentally friendly fabrics, improved logistics and possible resource sharing.

Coopetition strategies will delay the problem but not get rid of it. For example, a coopetition strategy that focuses on marketing the removal of fast fashion because ultimately, it is overproduction that is the problem. The clothing industry must promote and create an awareness of the damage outcomes the environment is facing when fast fashion operates. Simultaneously, the competitors that are collaborating should promote garments that have a long lifetime and good quality. Consumers would end up buying less things and shop fewer times, since it will be expensive and the need to buy more products will disappear because the garments will last longer. The industry must create and make it easy for the consumer to make easy decisions. The production of cloths will not stop because we need it for survival. It is better that the companies with a good supply chain, good working conditions, following sustainable guidelines, should get a beneficial outcome when operating the "right way".

Overall, coopetition strategies have more advantages than disadvantages if done right. Applying coopetition strategies to the clothing industry is recommended. The clothing industry has the capability to adapt to innovation and modify. Utilizing coopetition strategies, should be done sooner than later if a sustainable environment shall maintain because there are no people without planet. How the clothing industry will turn out in the future is unknown, but it is believed the industry would benefit from coopetition strategies.

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8 Appendix

Appendix 1 – Interview Guide

Hi,

I am an MBA student at the University of Agder and working on my master thesis.

The clothing industry is characterized by single use and little recycling thinking. People are increasingly more concerned about the negative environmental impact used clothes have when they are thrown away. There are some exceptions to this, where simple companies have taken the initiative to take back used clothing, and/or deposit arrangement. There is very little clothing that is recycled by the fibers being reused, since this requires a relatively advanced technical concept such as is demanding for an actor to take on alone. I find this recycling issue within the clothing industry interesting and have chosen to explore this further in my master's thesis.

To solve the problem “lack of recycling”, ventures would have benefited from a collaboration across competitors. This can be described as a "coopetition strategy" (cooperation between competitors), where the purpose is for competitors to cooperate to solve a common problem.

In that connection, I was wondering if you would consider appearing for an interview (max. 30 min) with me?

The appendix below contains the questions and information letter.

Hope this can be interesting for you.

Best regards,

Erik Lee Gjessing

1) Does the company you work for have any coopetition strategies today?

Yes - Can you elaborate?

No - Why not?

2) How do you think you would best operate for a coopetition strategy to work?

Dagnino, G. B. & Rocco, E. (2009). Coopetition strategy. *Routledge Studies in Global Competition*.

https://books.google.no/books?hl=no&lr=&id=79KMAgAAQBAJ&oi=fnd&pg=PP1&dq=%22coopetition+strategy%22&ots=Kkc4i-I8Lf&sig=LCe8WHWmnQu5l2klDZ831NOhNXs&redir_esc=y#v=onepage&q=%22coopetition%20strategy%22&f=false.

3) What is important for you to know for a coopetition strategy to work?

Kim, S., Kim, N., Pae, J, H. & Yip, L. (2012, 01 March). Cooperate “and” compete: competition strategy in retailer-supplier relationships. *Journal of Business & Industrial Marketing*, 28/4, 263-275.

<https://www.emerald.com/insight/content/doi/10.1108/08858621311313875/full/pdf>.

4) Which other areas in the clothing industry are suitable for coopetition?

Dari, L. (n. d.). Third Party Stakeholders: The Key to Coopetition Strategies In The Ready-To-Wear Sector.

<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=c97979c64044721fe789965dc5b53c7137c8987c>.

5) Which level in the supply chain is best suitable for coopetition and why?

Wilhelm, M. M. (2011, November). Managing coopetition through horizontal supply chain relations: Linking dyadic and network levels of analysis. *Elsevier*, 28/7-8, 663-676.

<https://www.sciencedirect.com/science/article/abs/pii/S0272696311000714>.

6) How can the clothing industry contribute to improve on sustainable development?

Saha, K., Dey, P. K. & Papagiannaki, E. (2021, 13 January). Implementing circular economy in the textile and clothing industry. *Business strategy and the Environment*, 30/4, 1497-1530. <https://onlinelibrary.wiley.com/doi/full/10.1002/bse.2670>.

Appendix 2 – Discussion paper

Discussion Paper: Responsible

Erik Lee Gjessing

Introduction

My topic for my master thesis is about coopetition strategies with focus on circular economy and the clothing industry. The main research question is how coopetition strategies can affect a sustainable environment while making the clothing industry circular. The concept “responsibility” is relevant and has a clear correlation to my thesis. The problem with the clothing industry is that there is not a well enough process for recycling clothes, which results in throwing used clothes to landfills. Our responsibility is to prevent that.

This one-time use of clothing combined with limited recycling results in a poor utilization of resources. The clothing industry has a waste problem.

Why the thesis is relevant to responsibility

The topic for the discussion paper has three levels. Coopetition strategies, circular economy, and clothing industry. This discussion paper will be written related to all these topics and discussed from a real and potential ethical point of view.

Coopetition strategies

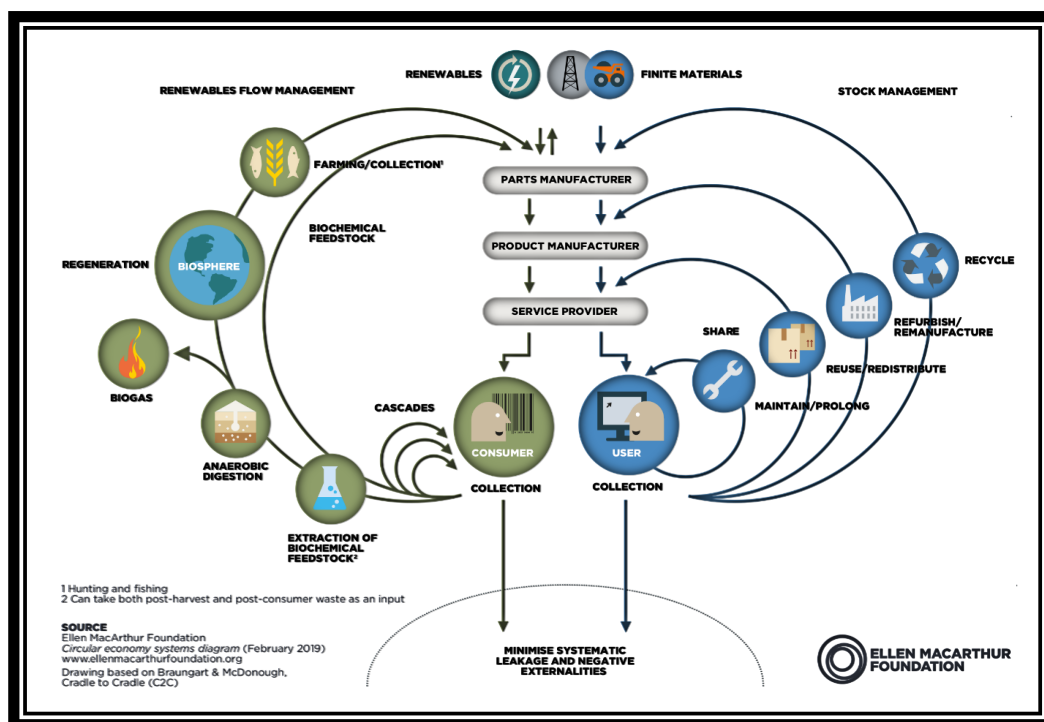
Coopetition strategies are based on two or more competitors working together to fix a common problem that they have. If it is done right, a win-win situation could be formed. The real ethical challenge here is that during the process, there is a lot of trust that is involved and must be developed along the way (Bengtsson & Kock, 2000).

For example, ethical behaviors in the working environment. The workplace has honesty, fairness, mutual respect, communication, and rules to name a few. And remember, this must be applied from both sides, so both companies (or more) get the same amount of the pie.

What it boils down to, and the responsibility we have, is that everything from the company to individuals must be on the same page, so all the pieces of the puzzle have the fit for cooperation to work.

Circular economy

Circular economy (CE) is a form for sustainability. CE's task is to get everything around and is designed to reduce waste and circulate products while regenerate nature (Ellen MacArthur Foundation, n. d.). The figure below illustrates how CE works.



Circular economy (CE) discusses an economic system that directs on decreasing waste and increasing the use of resources. This method implies reducing the use of reduced resources and designing products and services that can be reused and recycled, hence creating a closed loop of resource consumption. Although CE suggests a promising explanation to the environmental and economic challenges that we face today, it also creates ethical challenges that need to be tackled. In this discussion paper, I will discuss some of the ethical challenges related to circular economy and develop solutions to fix it (Ghisellini et al., 2016).

One ethical challenges of CE are the distribution of benefits and costs. The transition to a circular economy needs investments in new technologies, processes, and infrastructure. These investments can bring long-term advantages, but can form short-term costs, such as job losses in industries that rely on linear economic models. Therefore, the circulation of the costs and

benefits of the transition to a circular economy, needs to be considered and confirmed that the burden is not unreasonably accepted by marginalized communities, who are often the most vulnerable to economic and environmental wrongs (Geissdoerfer et al., 2017).

Another ethical challenge of a circular economy is the possibility of accidental consequences. While the circular economy aims to reduce waste and resource consumption, it can also create new environmental and social challenges. For example, the change to a circular economy may increase the demand for certain raw materials, which could lead to greater environmental degradation in regions where those materials are extracted. Furthermore, CE ideas could accidentally create new social wrongs if lead to the shift of exposed communities or overly benefit certain groups over others (Corvellec et al, 2021).

The implementation of a circular economy also raises questions about responsibility and accountability. Who is responsible for ensuring that products are designed for circularity, and who is accountable for ensuring that products are reused, repaired, or recycled.

Our responsibility for circular economy

The circular economy is an economic system designed to minimize waste and maximize resource effectiveness by limiting materials and products in use for as long as possible. However, the circular economy is still in its early stages of development, and there are several challenges that need to be addressed to make it more effective. Here are a few ways to fix the circular economy:

- Advance collaboration: Collaboration between stakeholders, such as governments, businesses, and consumers, is essential to create a circular economy. By working together, stakeholders can develop innovative solutions, share knowledge and expertise, and create new business models.
- Develop new business models: Circular business models, such as product-as-a-service, can improve the reduce waste by sustaining products in use for longer. Firms can explore new ways of reusing and recycling materials to create new products.
- Educate consumers: Consumers play a critical role in the circular economy. Educating consumers about the benefits of a circular economy, such as reduced waste and resource efficiency, can help drive demand for circular products and services.
- Invest in research and development (R&D): Research and innovation is necessary to creating a more effective CE. Investing in new technologies, such as advanced recycling and renewable energy, can help run the transition to a circular economy.

Overall, fixing the circular economy will involve a shared effort from all stakeholders, involving governments, businesses, and consumers. By developing new business models, educating consumers, and investing in R&D, a creation of a more sustainable and capable economic system will develop (Perkins et al, 2020).

Clothing industry

After doing my interview for my thesis, the finding from the clothing industry was quite frightening. There were more negative than positive outcomes. Some ethical issues that are being created during the process of producing clothes are: child labor, environmental concerns, animal cruelty, body shaming, health and safety risks and the demand for blood diamonds (Fashiza, n. d.). All these ethical issues result in a challenge we are responsible to fix, since it is us that made it.

The clothing industry has long been correlated with ethical challenges, ranging from human rights violations to environmental damage. The clothing industry is complex and often organized in countries with weak or non-existent labor laws. This has made it hard to regulate, and as a result, it is often troubled by unethical methods. Here are some of the ethical challenges in the clothing industry.

Human Rights Violations

The clothing industry is known for human rights instability, particularly in developing countries. Many clothing firms pay minimal wages, force workers to work long hours, and reject them basic rights. In some cases, workers are forced to work in risky environments and exposed to toxic chemicals that can become health damaging (Nolan, 2017).

Child labor

Child labor is a major ethical challenge in the clothing industry. Children as young as five are employed in some factories, where they work long hours and are often exposed to dangerous conditions. This not only violates their rights, but also denies them an education, enabling the cycle of poverty (Huq et al, 2016).

Environmental Damage

The production of textiles requires enormous amounts of water, energy, and chemicals. The dyeing and finishing of textiles can make toxic waste that pollutes waterways and harms the

environment. In addition, the production of synthetic fibers such as polyester contributes to the plastic pollution problem that is threatening our oceans and marine life.

Fast Fashion

Fast fashion refers to the practice of producing cheap clothing quickly and in huge quantities, with the aim of keeping up with rapidly changing fashion trends. This business model encourages consumers to buy more clothes than needed, which will result in overproduction, which will result in contributing to overconsumption and waste.

Investing in sustainable materials

The clothing industry can decrease its environmental impact by investing in sustainable materials such as organic cotton, bamboo, and hemp. These materials need less water, energy, and chemicals to produce than traditional textiles. In addition, companies can invest in recycling programs and take steps to reduce textile waste. The clothing industry is one of the most polluting industries in the world, with high levels of waste, water usage, and carbon emissions. However, there are several steps that can be taken to fix the clothing industry and make it more sustainable (Silva et al, 2017).

- Reduce overproduction: Overproduction is one of the biggest problems in the clothing industry, leading to waste and additional inventory. Brands can reduce overproduction by adopting a "less is more" approach and producing only what is required.
- Use sustainable materials: Using sustainable materials, such as organic cotton, recycled polyester, and natural fibers. This can improve the environmental impact of the clothing industry. Brands can also explore new materials, such as plant-based fabrics and biodegradable textiles (Thakker & Sun, 2022).
- Implement circular systems: The clothing industry can gain from circular systems, such as renting and recycling programs, to reduce waste and continue the lifespan of clothing.
- Promote ethical manufacturing: Brands can ensure ethical manufacturing practices by joining with factories that highlight fair labor practices, safe working conditions, and environmental sustainability (Perry et al, 2015).
- Educate consumers: Consumers play a crucial role in the clothing industry by making informed decisions about what they buy and how they throw away clothing. Brands can educate consumers on the importance of sustainability and offer resources for sustainable fashion choices (Hill & Lee, 2012).

Overall, fixing the clothing industry will require a complex and multilayered approach that involves reducing overproduction, using sustainable materials, implementing circular systems, promoting ethical manufacturing, and educating consumers. By adopting these practices, the clothing industry can become more sustainable and environmentally friendly.

Conclusion

The ethical challenges with these three levels of responsibility are hard to develop and even harder to fix. Competition strategies between companies bottles down to trust and relaying on the other part to do their job. Ethical challenges can occur, but it depends on what their responsibility is and how it is exceeded.

Since circular economy is a wider term, and more and more people are affected by it everyday, the responsibility has a bigger impact when discussing ethical challenges. There are more steps, and more people must do their part for everything to go around.

The last level, clothing industry. This is a level where all people are/should be affected by. Everything from shoes to beanies. The garments are endless, the production is endless, and the consumption is the absolute worst. Mentioned above, the ethical challenges here could be a whole master thesis by itself and our responsibility to fix it, could be a PhD.

My research question for my master thesis, is that cooperation strategies could provide and develop a solution to impact a sustainable environment while making the clothing company circular. I believe that if companies come together to fix a common problem, would be an easier and more efficient process instead if one company was going to do it by itself. The problem here is that people purchase too many clothes, which will result in more production. On the other hand, would businesses agree to cut production, which will mean less money for them, to save the planet? Another ethical challenge. Right now, the whole industry is in a bad cycle. Our responsibility as humans, is the awareness of what you have and be conscious of what you buy. Because there are no people without a planet.

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