Struggle for Survival
A Case Study of the Reindeer Industry in Sweden

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“Reindeer Herding may be the best profession there is.”
- Reindeer Herder 3
Abstract

Background: Within capitalistic economies the notion persists that only the most efficient and profit-maximizing companies and industries, that withstand the market mechanisms, should sustain. However, market mechanisms currently do not sufficiently consider non-monetary value creation such as social and environmental contributions. Thus, the notion of “survival of the fittest” drives industries that deliver social and environmental contributions, but are not as profitable, into extinction. One such industry whose viability is currently challenged is the indigenous Sami reindeer industry in Fennoscandia. Reindeer herding carries great social, cultural, and environmental value beyond economic terms. It is an essential part of Sami culture and does not only provide income but preserves traditional knowledge, practices, and identity. The reindeer industry, however, exists under pressure-like conditions and is facing multiple social, economic and environmental challenges.

Purpose: The purpose of this study is to contribute to the understanding of the interrelations that constitute the struggle faced by the Swedish reindeer industry in which its viability is challenged.

Method: This study is a grounded theory case study of the reindeer industry in Sweden. Following a qualitative theory building approach, key stakeholders were interviewed as part of fieldwork in Norrbotten County, Sweden. Through data analysis a theory was developed which is mapping out the struggle of the reindeer industry in its context.

Conclusion: The study highlights the struggle of the Swedish reindeer industry from an inside-out perspective. The theoretical contribution is in the form of a process map which shows the interrelations and context of the struggle. Three conditions affecting the struggle were identified (missing value recognition, power asymmetry, and clashing cultures and values) whereas needs, challenges and adaptation strategies and the interrelations between them constitute the struggle. Overall, for the reindeer industry to be viable long-term, the political and economic systems need to recognize and respect the real value it is creating.
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1. Introduction

This chapter introduces the research topic as well as the critical background information regarding the context that this study is situated in. It further lays out the research problem and identifies the research gap which is followed by the research question and purpose.

Capitalistic economies are never stationary but constantly evolving (Schumpeter, 2010). Through market mechanisms new businesses and industries emerge and displace less efficient ones. This concept of “creative destruction”, as coined by Joseph Schumpeter, builds on the notion that due to the market’s competitive nature, only the strongest, meaning the most competitive, innovative and profit-maximizing industries will survive. Similar to the concept of “survival of the fittest” in Charles Darwin’s theory of evolution, the notion persists that creative destruction is a form of ‘natural selection’ that leads to the most efficient market. Conversely, this leads to the elimination of businesses and industries that are not able to adapt to changing market conditions. One must bear in mind that capitalistic market mechanisms are rewarding profit maximization and do not sufficiently consider the creation of other forms of value such as cultural and social (Friedman, 2007; Gray, 2006). Thus, one could question the real efficiency and morality of creative destruction leading to the disappearance of industries, considering that not all aspects of value creation are respected by market mechanisms.

This issue becomes especially relevant when looking at industries that are socially and culturally significant beyond their economic contribution. An example of this is the reindeer industry in Fennoscandia which carries great social, cultural, and ecological value beyond economic terms (Landauer et al., 2021; Östlund & Norstedt, 2021; Riseth, 2006), thus, underlining the importance of the survival of the industry. In Sweden, reindeer herding is exclusive to the Sami, who are an indigenous people living in the northernmost parts of Sweden, Norway, Finland and Russia (Sköld, 2015). Even though reindeer herding has been described as one of the oldest and most resilient forms of livelihood (Forbes, 2006) the reindeer industry is facing numerous socio-economic and environmental challenges (Keskitalo et al., 2021; Löf et al., 2022).

Our study is a grounded theory case study exploring the reindeer industry in Sweden. Following an inductive theory-building approach, we interviewed key stakeholders as part of field work in Norrbotten County, Sweden. Through the data analysis, we developed a theoretical
contribution which is mapping out “the struggle” of the reindeer industry in its context. With this study we aim to increase the understanding of the interrelations that constitute this situation/phenomenon.

1.1 Background on Indigenous Peoples

The issue of defining who indigenous peoples are, is complex, and an ongoing debate (Keskitalo et al., 2021). For a respectful articulation of indigeneity, one should identify rather than define indigenous peoples in order to recognize the fundamental right of self-identification (Colbourne & Anderson, 2020). Further, the term “indigenous” can be problematic since “it appears to collectivise many distinct populations whose experiences under imperialism have been vastly different” (Smith, 2021, p. 6). Due to the history of assimilation and cultural colonial impact that indigenous peoples have been exposed to, there is a need for an inclusive way of understanding indigeneity to nurture the future and wellbeing of indigenous peoples and it is important to recognize indigenous peoples right to define who and what is indigenous (Keskitalo et al., 2021). However, the UN Indigenous and Tribal Peoples Convention in 1989 has provided an expansive definition for indigenous and tribal peoples which can be found in Appendix 2.

Indigenous peoples make up about 5% of the global population with approximately 370 million people living in over 90 countries (Keskitalo et al., 2021). Thus, there is a great deal of diversity and variety in indigenous localities and histories (Keskitalo et al., 2021; Sanders, 1999). An “indigenous worldview” with an emphasis on global flourishing, in contrast to economic globalization, promotes the understanding of living and working with the earth rather than dominating and extracting from it (Narvaez et al., 2019). This approach of living in harmony with nature has led to many First Nations and indigenous peoples living sustainably for most of humanity’s history (Ingold, 1999). Therefore, it can be beneficial to turn towards indigenous wisdom and worldviews as a blueprint for how humanity can thrive within the boundaries of our planet while ensuring the wellbeing of humanity (Narvaez et al., 2019; Raworth, 2017; Steffen et al., 2015).

Indigenous industries such as the Sami reindeer industry are deeply rooted in traditional practices and knowledge which have been passed on for many generations (Forbes, 2006; Löf et al., 2022; Sköld, 2015). Many businesses founded and run by indigenous peoples are based on indigenous worldviews which entail a clear prioritization of communal wellbeing and sustaining nature over monetary value (Narvaez et al., 2019). Hence, indigenous industries are
highly relevant to society at large since they contribute to the resilience and diversity of the global economy (Keskitalo et al., 2021; Magni, 2017; Vázquez-Maguirre, 2020).

1.2 Background on the Sami

1.2.1 Sami History

Sami are the only indigenous peoples in the European Union (Virtanen et al., 2021). They have historically lived in the cultural region called Sápmi which stretches across Norway, Sweden, Finland, and Russia (Lantto, 2010; Samerna i Sverige, n.d.). Sápmi is also a cultural and linguistic community (Samerna i Sverige, n.d.) with an estimated population of around 70,000 to 80,000 Sami people (Lantto, 2010) with 20,000 to 40,000 of them living in Sweden (Samerna i Sverige, n.d.).

The official position in Sweden is that Sápmi was never subject to colonialism, however, some scholars refer to what the Sami peoples have experienced as “inner colonization” (Sehlin MacNeil, 2017) since the colonizers (Swedish settlers) never left the territory and the Sami people was integrated into Swedish society (Sehlin MacNeil, 2017). Nonetheless, for simplicity reasons we refer to it as colonization in this paper.

The Western understanding of territory as a form of commodity has led Sápmi into being separated through state borders which affected Sami people, as it led to Samis being forcibly moved, brought about new political landscapes and unnatural borders for the reindeer. This laid the foundation for a changed economic and social reality for the Sami where citizenship served as a tool that resulted in more control and eventual assimilation of the Sami. The consequences of this division of Sápmi and Sami people has further acted as a catalyst for conflict concerning border reindeer grazing. (Lantto, 2010)

The Swedish state has strongly influenced what counts as being Sami through legislation which historically linked practice of reindeer husbandry\(^1\) with the definition of Sami identity. This

\(^1\) Reindeer husbandry “is a general term to describe the livelihood of reindeer pastoralism. It encompasses the social-ecological relation between people, animals and the natural environment, as well as the economic and cultural dimension inherent in the livelihood. Political and legal regulations are important societal components” (Holand et al., 2022, p. 9). When the data collected in this study is presented and discussed, the term “herding” will be used even in cases where “husbandry” may be more suitable, as the interviews were conducted in Swedish where both “reindeer herding” and “reindeer husbandry” are referred to as “renskötsel”, making it difficult to decipher which corresponding English term best represents what the interviewees said.
definition of who is Sami, was historically shaped by the colonialist idea of locating the ‘other’ and thus creating a possibility to exercise power over these groups (Nilsson, 2020). The only traditional Sami profession recognized and linked to a set of rights used to be reindeer herding. Thereby, a strong link between being Sami and reindeer herding was established through legislation (Nilsson, 2020). It is therefore not surprising that many people still associate the Sami with reindeer and that reindeer are an integral part of the Sami culture in several ways (Samerna i Sverige, n.d.). Thus, reindeer husbandry has a great symbolic value for the Sami (Rennäringen i Sverige, n.d.; Rønning, 2007).

1.3 Swedish Reindeer Industry

Building on hunting and fishing, the Sami adopted reindeer herding as a way of life since it provided food, shelter, clothing and tools (Rønning, 2007). Reindeer herding families lived, historically, a nomadic lifestyle and followed their herd during seasonal migrations and although most reindeer herders today live in permanent housing, the herd still moves between seasonal pastures (Rønning, 2007). Holand et al. (2022) describe pastoralism as a way of making a living by raising animals to produce products for consumption and trade. They further argue that this type of land use is important where harsh and unpredictable environmental conditions do not allow for the productive cultivation of crops. Thus, pastoralism is seasonal, and the availability of forage and water often requires people and their herds to move through the landscape (Holand et al., 2022). In addition, Sami reindeer pastoralism is a complex system with two different aspects of management, which are herding and husbandry (Brannlund & Axelsson, 2011).

Reindeer herding “is defined as the practical work with the herd or individual animals to secure their well-being. This includes, e.g., migration between seasonal grazing grounds or directed movements between different grazing sites, gathering or separation of several herds based on ownership or herding groups, calf marking, slaughter and guarding the herd against disturbances, such as predators” (Holand et al., 2022, p. 9).

In contrast to individualistic entrepreneurship where the entrepreneur is independent, Sami reindeer herders own their reindeer individually, but reindeer herding has traditionally taken place within the framework of siida, which informally brought entrepreneurs together in a working community (Dana & Åge Riseth, 2011). The siida consisted of households working together on traditional pasturelands and these constellations were grouped together into
administrative reindeer pasture districts (Brannlund & Axelsson, 2011). Such a pasture district is called *sameby* (Sami village) in Sweden and will be referred to as Sami village throughout this thesis. A Sami village is an economic and administrative association with its own board of directors that manages reindeer husbandry in a specific geographical area for the common good of its members (*Rennäringen i Sverige*, n.d.).

The Sami people have the exclusive right to herd reindeer on around 40% of Sweden’s land area with the purpose to produce meat (Sandström & Widmark, 2007), and that right can only be exercised by a Sami who is a member of a Sami village (*Rennäringen i Sverige*, n.d.). However, this does not mean that all land is suitable for reindeer to graze on (*Rennäringen i Sverige*, n.d.). The exact number of reindeer herders is not certain; however, it is estimated to be around 2000 to 3900 in Sweden with an industry turnover estimated at USD 43 million (OECD, 2019; Sköld, 2015). In the context of this study, the term ‘reindeer industry’ refers to reindeer husbandry (Sami villages) and reindeer slaughterhouses.

Koch and Miggelbrink (2011) describe how several institutions in Sweden are involved in reindeer husbandry management and their respective responsibilities. Firstly, agricultural ministries at government level supervise reindeer husbandry in the primary sector. Secondly, the County Administrative Board of Norrbotten (Länsstyrelsen i Norrbottenslän) oversees land use rights and dealing with conflicts between reindeer husbandry and other actors’ activities. Thirdly, all internal matters in Sweden are handled by the Sami Parliament, *Sametinget*. Fourthly, at the local level, there are Sami villages, which are made up of individual reindeer herders who organize themselves into sub-groups. Finally, most of the Swedish Sami villages are members of the National Association of the Sámi People in Sweden, *Svenska Samernas Riksförbund* (SSR).
1.4 Research Problem and Purpose

Within the widely dominant neo-liberal logic, the concept of creative destruction suggests that it is tolerable for businesses and even whole industries to cease to exist due to market forces (Schumpeter, 2010). Hereby, in Schumpeterian logic, the disappearance of industries is justified through the argument that less efficient and non-innovative industries are taking up resources. Therefore, it suggests that through market forces only the most efficient industries survive and thereby create the most optimal economy and greatest benefit for society. However, the idea that actions and businesses are only considered efficient and valuable when their contribution is in monetary terms and aimed at maximizing profits, is detrimental to sustainable development (Gray, 2006). The dominant value recognition within capitalistic economies fails to account for the non-monetary value of certain industries (Gray, 2006) like the Sami reindeer industry. Yet it is exactly those indigenous practices that carry crucial knowledge necessary for long-term survival within the capacity of the planet (Löf et al., 2022; Magni, 2017). For this reason, it is of great relevance to examine the Sami reindeer industry as it exists in this complex system despite bearing cultural and social value for the Sami (Dana and Åge Riseth (2011), as well as other members of society (Danell, 2000; OECD, 2019; Riseth et al., 2010).

When it comes to the reindeer industry and the implications of having to exist in the current political and economic system, the topic has been studied with a focus on specific aspects and from multiple angles in scientific literature. There is existing literature about the emergence of the current state of the industry and the problems it is facing (Danell, 2000). Some researchers have focused on the business aspect, discussing forms and drivers of entrepreneurship (Dana & Åge Riseth, 2011; Rønning, 2007), business strategies (Heikkinen, 2007) as well as the practitioners’ motivations and the lack of profitability (Riseth, 2006). Another perspective scholars have taken to examine the state of the industry is through discussing land-use competition in general (Horstotte et al., 2022) as well as in the context of extractive industries (Fohringer et al., 2021; Österlin & Raitio, 2020; Östlund & Norstedt, 2021; Sandström & Widmark, 2007; Sehlin MacNeil, 2017), violence in the form of spatial striation by the Nordic States (Du Plessis, 2020) and green colonialism (Fjellheim, 2023; Normann, 2021). Yet another angle from which the reindeer industry’s situation has been studied is that of pastoralism (Holand et al., 2022) and predators (Åhman et al., 2022) as well as the political perspective (Nilsson, 2020) focusing, however, on the entire Swedish Sami community’s right to self-
constitution. Despite the different challenges that have been examined, there are studies which focused on the adaptation and adaptability of Sami reindeer herding communities to climate change (Löf, 2013; Rasmus et al., 2022; Riseth et al., 2010), governance (Löf, 2014; Löf et al., 2022) and the development thereof throughout history (Brannlund & Axelsson, 2011). All of these studies showcase the external factors that are currently challenging the reindeer industry’s viability and thereby illustrate the challenging situation in which it is. However, while most of these studies have examined individual areas or adopted specific lenses, there are two studies considered in the literature review for this paper that focus on the interrelations of the challenges and adaptations (Sköld, 2015) as well as how reindeer management is driven to social and ecological tipping points (Landauer et al., 2021). Although the former article focuses on Sweden, it explores the historical developments of the different challenges and adaptations whereas the latter focuses on the Finnish context. As circumstances such as laws and regulations, as well as aid systems and colonial history differ between countries, some findings may be similar across contexts but that has to be proven empirically. The identified research gap is therefore the lack of a holistic understanding of the interrelation and constitution of the struggle which gives rise to the current challenging situation of the Swedish reindeer industry.

Based on this gap, this study aims to contribute to the understanding of the interrelations that constitute the struggle faced by the Swedish reindeer industry in which its viability is challenged. Therefore, study is guided by the following research question:

*How is the struggle of the Swedish reindeer industry taking shape amidst adverse external factors that are currently challenging the viability of the industry?*

The answer to this question may guide policymakers, the reindeer industry and other industries operating in Sami areas (i.e., extractive and car-/train testing industries hereinafter referred to as external industries) in changing their practices, developing strategies and support mechanisms that ensure this industry’s survival.
1.5 Perspective
This study focuses on the inside-out perspective and thereby illustrates the above-mentioned situation based on the perceptions of actors within the reindeer industry. This perspective was decided upon after the consultation with Sami scholars who confirmed the relevance of this approach. Moreover, portraying the perspective and perception of the key stakeholders is highly relevant as the realities of Sami may differ within cultural contexts or from non-indigenous people (Love, 2019). Additionally, through this perspective, we decrease the risk of reproducing outsiders’ perceptions of the industry and related biases. Nonetheless, we do include some local external stakeholders of the industry to triangulate our data and identify discrepancies in perceptions which may influence the phenomenon under study and are therefore relevant to this study.

1.6 Delimitations
The scope of the study is delimitated geographically as well as timewise as it focuses on a specific case. Thus, the empirical findings only apply to the context of the reindeer industry in Norrbotten County, Sweden. It can therefore not be argued that this case is representative for the entire reindeer industry in Sweden as “certain events and experiences and ways of understanding them are, social constructionists maintain, defined by time and place and as such vary across and within cultural contexts” (Love, 2019, p. 51). However, the theoretical contribution made is aimed at enhancing the understanding of the situation of the reindeer industry in Sweden. As opposed to many of the studies mentioned above, we examine the perspective of the two actors in the reindeer industry – namely the reindeer herders’ and that of a slaughterhouse – in the location of our case study. As this study is aimed at investigating the current challenging situation of the reindeer industry, it will not focus on the positive aspects of the industry (which clearly exist nonetheless).
2. Frame of Reference

The following chapter explores the existing literature related to the focus of this study. It is divided into two main parts, namely the method of conducting the literature review and the review itself. We explore the existing literature in our field of study through multiple perspectives and then arrive at a consolidated understanding of the previously identified struggle of the reindeer industry. In addition to that, we present theories that will later allow for a discussion of the developed theoretical contribution in the context of existing theories.

2.1 Method of Screening the Literature

Table 1 Search Parameters for Literature Screening

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<thead>
<tr>
<th>Search Parameters:</th>
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<tr>
<td>Sources</td>
<td>Academic Books, Academic Articles, Relevant Reports</td>
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<tr>
<td>Databases</td>
<td>Scopus, Web of Science,</td>
</tr>
<tr>
<td>Keywords</td>
<td>Sami, Sámi, Saami, business*, reindeer industry, husbandr*,</td>
</tr>
<tr>
<td></td>
<td>herding, challenge, obstacles, adaptation strateg*, values,</td>
</tr>
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<td>indigenous business*, struggle</td>
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The purpose of the first round of literature review was to establish the phenomenon that is to be investigated and gain an overview of what is already known about it (Corbin & Strauss, 1990). This chapter is thereby called frame of reference and was constructed by screening existing literature in a systematic manner, following the eight steps outlined by Xiao and Watson (2019). The process began with (1) the formulation of the research problem which in our case also included the purpose of the research. We then (2) specified the inclusivity criteria, namely that the records should not be older than 23 years which we identified to be a suitable timeframe and that articles should be from journals that are on the ABS list (Academic Journal Guide 2021). We also agreed on the tools (Web of Science and Scopus) and keywords (see Table 1) we would be using and how the articles should be screened. As the common language of the three researchers is English, we decided to only consider papers in that language so that all three researchers could evaluate the papers based on relevance. We then began with (3) the literature search, combining the predefined keywords with “AND” or “OR” when searching on
the chosen electronic databases. Although Xiao and Watson (2019) suggest using forward and backward search/snowballing in this step, we decided to do it after we had assessed the quality and relevance of the literature because of feasibility reasons. We (3) used the ABS list as a quality criterion. However, we also included articles not on the ABS list if they were highly relevant, assessed to be of high quality based on the number of times they were cited. Furthermore, we did not consider bachelor’s and master’s theses. As we used the procedure for systematic literature review to screen literature to set the stage for our study and not as the methodology of our paper, we did not consider other quality criteria recommended by Xiao and Watson (2019). To assess the relevance, we read the titles, abstracts, and keywords of each paper. We further took the predefined inclusion criteria into account and screened the literature based on it. We then utilized backward snowballing to identify relevant related literature. As the last step (7) we analyzed as well as synthesized the identified literature to construct our frame of reference, aiming to establish the phenomenon under study and show what is known about it. The final step was naturally (8) the write up of this chapter or as Xiao and Watson (2019) call it, reporting the findings.

Later in the research process, a second round of literature review was conducted to identify relevant existing theories that could be used to discuss and validate the theoretical contribution. As our theoretical contribution is grounded in empirical data, we could not anticipate the direction of this study before the data collection process. Therefore, we identified relevant existing theories after the theory building process. The identified articles were recommended by experienced scholars or hand-picked by us based on previous knowledge.

2.2 Review of Existing Literature

2.2.1 Current State of the Reindeer Industry

As the aim of Western consumer societies is continuous growth, it leads to increasing pressure on indigenous people’s territories (Colbourne & Anderson, 2020). This is also prevalent in the case of Sápmi and puts the Swedish reindeer industry in a situation where it is facing numerous external pressures such as anthropogenic encroachment which in turn are amplified through climate change (Fohringer et al., 2021). These pressures cumulate and are expected to increase in the future as development activities such as renewable energy production, production of metal ore as well as the related electricity and infrastructure can be observed in Northern
Sweden (Fohringer et al., 2021). Du Plessis (2020) refers to these developments as spatial striation and suggests that this results in the loss of biodiversity and “a forceful homogenization of Western form of life based on consumption, profit, and growth” (p.360), which in other words would be the end of traditional forms of reindeer herding and thus puts the entire industry at risk. According to Benjaminsen et al. (2015) the reindeer industry is “an assemblage of social forms, practices, traditions and ethical principles” that are being simplified to a “sterile, dysfunctional caricature of a meat factory” (p. 227).

Despite the reindeer industry bearing a greater variety of value than other conventional meat industries, Danell (2000) highlights that in the operating regions, the reindeer industry plays a crucial role for the local economy. In addition, reindeer husbandry also positively stimulates the need for other businesses such as transport companies, petrol stations, and workshops etc. (Nilsson, 2014).

### 2.2.2 Ecological Perspective

Climate change is among the factors that Landauer et al. (2021) identified to result in tipping points of the social-ecological system that reindeer herding is, as it depends on services ecosystems provide. They found numerous ways that climate change is impacting the reindeer, for example through increased diseases and parasites (Landauer et al., 2021).

Sami reindeer herders adapted to numerous changes throughout history through adaptation strategies (Brannlund & Axelsson, 2011) based on knowledge about the challenges and possible responses as well as the availability of resources necessary for the implementation of these measures (Füssel & Klein, 2006). Riseth et al. (2010) suggest that traditional ecological knowledge of Sami reindeer herding communities can help overcome some of the challenges posed by climate change as this knowledge has emerged from previous changes.

Apart from the anthropogenically caused challenges, there is an additional pressure on the reindeer industry which is predators. According to the book chapter of Åhman et al. (2022) on reindeer predators, multiple species of large carnivores are imposing a danger on reindeer herds as they are prey. In Sweden the brown bears are the most common predators followed by lynx and wolverine. The possibility for reindeer herders to manage these predators depends on the national strategies in place. Predators can have direct effects such as splitting the herds, creating disturbance but also indirect and long-term effects such as decreasing the herd productivity by
changing their age structure of breeding and therefore reducing calf production and influencing the genetic pool. Reindeer herders’ economic compensation for losses in their herds is based on the presence of predators within a reindeer herding area and has not been increased since 2002 (Åhman et al., 2022; Muller-Wille, 1981).

2.2.3 Political Perspective
A long-standing disparity in the various institutional and political contexts characterizes the interaction between the Sami community and the majority population in the respective states (Sara, 2009). Dana and Dana (2007) describe how globalization and the EU's interference in reindeer husbandry have affected traditional life through laws that, for example, dictate how the slaughter of reindeer should take place. On a national level many policies aimed at increasing the herding’s efficiency and productivity were put in place and have led to a rationalization of reindeer herding which has ultimately increased the herders’ dependence on meat production (Forbes et al., 2006).

Despite the clear rights of the Sami under international declaration ("United Nations Declaration on the Rights of Indigenous Peoples :resolution," 2007) and Swedish law (Fälldin & Wikström, 1977) Sweden has been criticized from several sides for not respecting the rights of the Sami, including international bodies such as the UN Committee on Racial Discrimination (Sjöstedt, 2018).

Both Löf (2014) and (Nilsson, 2020) emphasize the need for greater Sami self-governance. Löf (2014) argues that self-governance is related to reindeer husbandry and refers to the UN declaration on indigenous peoples' right to control over natural resources and traditional lands. She concludes that in these lands, at the moment, the conditions for self-governance are lacking, and there are issues with the conditions for co-management and cooperation with other actors on equal grounds.

A new law on consultations with Sami has been agreed upon in the Swedish parliament in 2022 and will come into effect in March 2024, making it mandatory to consult Sami representatives in matters that may have special significance for the Sami in order to promote Sami self-governance (Riksdagsförvaltningen, n.d.).
2.2.4 Cultural Perspective

Kjærgård et al. (2022) highlight the cultural value of reindeer husbandry. A strong sense of identity and belonging to the reindeer husbandry emerges from being born into a reindeer herding family and traditions such as receiving a reindeer as a gift. The study by Dana and Åge Riseth (2011) in Norway found that Sami are drawn to enter into the reindeer herding industry when choosing a profession because of the social and cultural significance it has to them. As Rønning (2007) elaborates, there is great value to the reindeer industry as it carries Sami culture, but reindeer herders also depend on it to make a living. Therefore, it becomes crucial to enhance economic performance while also preserving a cultural legacy, thus, the duality between reindeer herding and Sami culture provides crucial presumptions for economic action (Rønning, 2007).

Riseth et al. (2010) found that the Sami reindeer herders have extensive traditional ecological knowledge about environmental conditions which they use to manage their herds’ grazing. They suggest that science on climate change and meteorological data could be complimented through the inclusion of traditional ecological knowledge from indigenous peoples such as the Sami and their perspectives.

2.2.5 Power Imbalance Perspective

A large part of the global natural resource extraction takes place in indigenous territories; however, this extraction tends to disadvantage the local community economically as it extorts their assets (Curry et al., 2016). One such asset is the land where reindeer graze which is why the land loss caused by extractive operations negatively affect the reindeer industry and challenge reindeer herders’ ability to sustain their herds and thus sustain their livelihoods illustrated by Horstkotte et al. (2022). Finally, one of the main external drivers of shrinking grazing land is the forestry industry which uses nearly all productive forests to harvest timber of which half is extracted in reindeer herding areas (Harnesk, 2022). These logging practices not only result in a decrease of land but also in a drastic reduction of biodiversity which decreases the availability and the quality of grazing land (Harnesk, 2022). Eggers et al. (2019) study demonstrates how methods of forest management are more valuable from an economic standpoint, and it proposes that changing these practices, such as increasing the share of land set aside, could be beneficial not solely for ecological values, but for social values and reindeer husbandry as well.
There are recent debates on the Swedish government’s plan to expand the mining industry in areas populated by indigenous people, evoking resistance. The Sami hold the right to decide how land is used, which is crucial to the survival of Sami culture and reindeer husbandry. However, the hierarchical differences between the actors involved, as well as the power dynamics between them are creating a difficult and conflicting environment. (Persson et al., 2017).

To facilitate coexistence of forestry companies and reindeer herders on the same land, consultation meetings were implemented in the beginning of the 1980’s (Sandström & Widmark, 2007). However, according to Sandström and Widmark (2007) the power relations between these parties are reflected in these consultation meetings as the reindeer herders have limited impact on the result of these meetings. Despite the fact that the importance of consultations has increased since the implementation 20 years ago, the power asymmetry between these two sectors appears to remain unchanged (Sandström & Widmark, 2007). Fjellheim (2023) states that the Sami people’s cultural self-determination is often disregarded, as dialogue meetings are anticipated to result in an agreement.

Sehlin MacNeil (2017) highlighted a similar pattern of power relations in terms of the Sami and aboriginal ideas on the connection to country and how extractivism affects that interactive relationship. They display how the Sami are subjected to prejudiced attitudes and discriminatory societal structures that enabled extractivism to continue on their territories. Furthermore, Sehlin MacNeil (2017) stressed the fact that indigenous knowledge must be included and heard wherever indigenous concerns are addressed and should not be viewed by means of deficit models in which indigenous people are expected to adhere to or convert to society’s methods of knowing, being, and doing.

2.2.6 Business Perspective

Due to the effects of climate change and land use conflicts, reindeer herding is becoming more labor- and capital intensive (Horstkotte et al., 2022). Despite this increased need for labor, Heikkinen (2007) observed reindeer herding communities are having trouble finding adequate and committed workforce. Spencer (2008) illustrates how corporations entering indigenous territories for resource extraction impose a threat not only to the environment but also act as a direct competition for indigenous businesses in terms of labor and financial markets. As
indigenous peoples are among the most marginalized and vulnerable communities, their business operations are drastically impacted by these negative effects of globalization (Colbourne & Anderson, 2020).

Reindeer herders and their families’ livelihoods depend on the earnings which impose pressure on the industry (Riseth, 2006). Heikkinen (2007) illustrated how the issue of decreasing returns is complex, for example increasing the number of reindeer in a herd can lead to economically disproportionate investments of worktime, money and machinery needed and might not increase overall profitability. Due to environmental changes, reindeer herders are increasingly utilizing technology to adapt to the new conditions, however according to Rasmus et al. (2022), this mechanization is leading to a loss in traditional know-how of herding practices and cultural heritage.

One of the main adaptation strategies used by the reindeer industry to deal with today’s challenges is the creation of neo-enterprises (Heikkinen, 2007). These neo-enterprises are facilities where reindeer are slaughtered, and the meat is processed and substitute the carcass-based sales. These organizations make it easier to compete with large industrial competitors and offer a way to improve the income of herders whereby herds do not need to grow, which in turn reduces grazing press (Heikkinen, 2007).
2.2.7 Summary of the Frame of Reference

The frame of reference has illustrated the complex and challenging situation the Swedish reindeer industry currently exists in and suggests that the industry is currently at risk due to the numerous different pressures it is exposed to. These pressures and their interaction with the focal industry create what we call ‘the struggle’ which is represented by the intersection of the three distilled domains which can be seen in Figure 1. The three individual domains are (1) the environmental domain which includes climate change, predation, clash of traditional and modern/Western knowledge systems and resource depletion, (2) the social domain which includes the disregard of indigenous rights, the lack of self-governance and the irreplaceability of the culture and finally (3) the economic domain which includes the increased labor and capital intensity, labor and financial market competition with the extractive industries as well as the decreasing returns on reindeer meat.

![Figure 1 "The Struggle" as identified through existing literature]
2.2.8 Theoretical Perspective

When looking at relevant theoretical perspectives that relate to the theory developed through this study, multiple theories from a range of disciplines were identified; starting with the previously mentioned concept of “creative destruction” by Schumpeter (2010), which is deeply embedded in the Western understanding of capitalism (Smart, 2012). The concept essentially refers to “the incessant product and process innovation mechanism by which new production units replace outdated ones” (Caballero, 2010, p. 24). Therefore, creative destruction highlights the constantly changing nature of capitalistic economies and explains how market mechanisms and innovation give rise to new businesses and industries and replace existing ones.

Schubert (2013) critically reflects on the underlying assumptions within the notion of creative destruction and raises the question if the innovation and change brought by creative destruction are automatically beneficial to society and what counts as such. In Schumpeter’s view, the change and novelty brought by market mechanisms are “clearly benefiting society” (Schubert, 2013, p. 230), however, Schumpeter also addresses the negative effects of economic change and recognizes the degeneration and generational consequences thereof. Schubert (2013) raises the question of the legitimacy of creative destruction and concludes that creative destruction is not legitimate per se as it often has drastic socio-economic consequences.

When studying interactions and relationships across different sectors, the stakeholder perspective is often used (Olabisi et al., 2019). As there are many different stakeholders involved within the reindeer industry (as illustrated in the previous sections of this chapter), the stakeholder perspective can be relevant for understanding the actors involved as well as their objectives and relations. A stakeholder is “any group or individual who can affect or is affected by the achievement of the firm’s objectives” (Freeman, 1984, p. 46).

However, as Quattrone (2022) argues there are stakeholders who do not have a voice – such as nature – and are therefore not included in this classical definition of stakeholders. Another crucial stakeholder group whose voice has been not sufficiently been heard, are indigenous communities as Banerjee (2001) points out. Indigenous communities are often severely affected by the operations of different industries such as mining and forestry, as it impacts their land (Banerjee, 2001). Olabisi et al. (2019) highlights how indigenous communities are oftentimes disadvantaged stakeholders as multinational companies tend to take advantage by extracting resources and knowledge from them. Thus, Banerjee (2001) argues that the current notion of
stakeholders is inadequate to address the social, economic, cultural, and political issues that indigenous communities are facing.

The challenges faced by indigenous industries are multifaceted and complex which is why it is helpful to take a systems approach to identify and address them appropriately. By recognizing the complexity and interrelatedness of the issues that indigenous communities are facing, one can maintain a critical focus on power (Olsen, 2018).

When looking at the power relations and injustices disproportionately affecting minorities, environmental justice theory, and its implications can be a helpful focus. As highlighted by Avila (2018), there is an uneven distribution of environmental burdens which is described and problematized in environmental justice theory. Dent et al. (2023) outlined how early frameworks of environmental justice theory focused on the need for distributive justice and the problem of maldistribution of problems and benefits. It was then expanded to include the need for justice in decision-making processes as well as greater recognition of diverse cultures and values in environmental governance (Dent et al., 2023). Dent et al. (2023) argues for need of indigenous environmental justice theory to go even further and addresses dimensions such as tribal sovereignty, intergenerational relations and kincentric ecologies (a worldview where humans are closely related to nature).

The generational aspect of environmental justice is also reflected in the widely accepted notion of sustainable development which is stated in the WCED's Brundtland report from 1987. It defines sustainable development as, “development that meets the needs of present generations without compromising the ability of future generations to meet their own needs” (p.43). Thus, sustainable development theory is highlighting the importance of the timely and generational aspect as well as the meeting human needs. However, according to Imran et al. (2014) this definition of sustainable development falls short in terms of recognizing the natural limits of the planet’s resources. Steffen et al. (2015) contributed by quantifying most of the planetary boundaries and thereby illustrating planet’s limits. However, sustainable development incorporates not only natural limits but also social needs. Kate Raworth (2017) developed the doughnut model which reflects the need for a sustainable economy to operate in a way that respects the ecological ceiling as well as the social foundation simultaneously.
3. Methodology

This chapter covers the research paradigm and approach/logic as well as the research design, data collection and analysis and finally the ethical considerations and quality standards. For this qualitative case study, we followed the assumptions related to the interpretivist paradigm and employed the methodology of pragmatic grounded theory and collected data through semi-structured interviews and field observations.

3.1 Research Paradigm

As shown by the frame of reference, existing research suggests a situation with a great amount of complexity which in this paper is referred to as ‘the struggle’. In order to understand this complexity, we seek to identify the interrelations between the different elements that create the situation the Swedish reindeer industry currently exists in. This aim is expressed in the research question which implies that the philosophical framework of interpretivism is most suitable when seeking to explore the complexity of a social phenomenon (Collis & Hussey, 2014) as the interpretive research paradigm is based on the belief that realities are socially constructed (Gioia & Pitre, 1990).

While what our interviewees do is of great relevance to be able to explore our research questions, we do not study what they do but their personal reports on what they do, which are highly subjective. In addition to that, the subjective lived experiences and perceptions are the main focus in our study, as the phenomenon we are investigating comes to life through and is shaped by these subjective elements. Hence, our research seeks out the phenomenological meaning. Thus, recognizing the inseparability from the social context, interpretivism is the suitable research philosophy for our project (Gillham, 2000). Apart from the assumption that reality is shaped by the subjective perceptions of our interviewees, we also recognize that in our research we interact with the focal phenomenon as is common in interpretive research (Collis & Hussey, 2014) which is why the act of researching makes the research inseparable from the researchers’ minds and their perceptions (Collis & Hussey, 2014).
3.2 Research Approach and Logic

The overarching methodology that guided the research process is grounded theory which allows for conceptualization of “social phenomena through inductive, systematic, and comparative approaches that are guided by and grounded in participant experience” (McCall & Edwards, 2021, p. 103). Although grounded theory is Western, it has similarities to indigenous methodologies as it allows for the co-construction of knowledge (Quinn, 2022) through necessitating that participants approve the accuracy of the data and the themes emerging from it (Quinn, 2022). It, furthermore, involves them as ‘expert informants’ as opposed to ‘research subjects’ (Quinn, 2022) which is in line with the advice brought forth by Love (2019) which is to abstain from research methods that create a hierarchical relationship between the researchers and participants in research projects involving indigenous participants. We thereby assume that our interviewees are aware of what they are doing and can therefore explain their own thoughts, intentions and actions as is common in grounded theory (Gioia et al., 2013). Here, it is particularly important to point out that some of the interviewees are Sami and thus belong to a people that, as many other indigenous peoples, were exploited in reductionist research for the interests of colonialism and exotification (Wråkberg & Granqvist, 2014). Unlike these practices, grounded theory enables us to capture and represent our interviewees’ perspective (Gioia et al., 2013) which is crucial to achieve our research purpose of showing the struggle from an inside-out perspective.

The specific type of grounded theory used in this study is pragmatic grounded theory, a term coined by McCall and Edwards (2021) describing the take Corbin and Strauss (1990) have on grounded theory, as it offers more methodological flexibility than classic grounded theory by Glaser and Strauss (1967) but provides a rigid enough structure as opposed to constructivist grounded theory. This makes it suitable for the focal research project where time and resources were constrained. This version of grounded theory, as opposed to classic grounded theory, is also in line with the acknowledgement of the influence of the researchers’ experience and knowledge (McCall, 2013) which is characteristic for the interpretive paradigm (Collis & Hussey, 2014). There is criticism of the pragmatic approach claiming that it may lead to descriptions instead of theories (McCall, 2013). We familiarized ourselves with theory building and the building blocks of a theory as defined by Whetten (1989) to avoid this potential problem.
3.3 Research Design

3.3.1 Research Process

After having done brief research about the field of indigenous organizational studies and suitable methodologies, pragmatic grounded theory was chosen as the guiding methodology. The research then commenced with the formulation of a preliminary purpose which was adjusted in two iterations based on consultations with two Sami scholars who have been researching Sami issues. This way we were able to identify a relevant research area for the Sami community in order to ensure that we are not extracting knowledge from the community but

Figure 2 Visualization of the Research Process

After having done brief research about the field of indigenous organizational studies and suitable methodologies, pragmatic grounded theory was chosen as the guiding methodology. The research then commenced with the formulation of a preliminary purpose which was adjusted in two iterations based on consultations with two Sami scholars who have been researching Sami issues. This way we were able to identify a relevant research area for the Sami community in order to ensure that we are not extracting knowledge from the community but
rather constructing knowledge of relevance for the community. These discussions directed the first round of the literature review on the basis of which the purpose/aim of the study was altered. In line with Corbin and Strauss (1990) version of grounded theory, the aim of the first round of the literature review was to define the phenomenon under study and to gain an overview of the existing knowledge about that phenomenon. We thereby were able to identify the research gap and formulate the research question. This was then followed by the sampling of interview participants. The first version of interview protocols was then created and later adapted based on the first-order analysis (memo-writing) which followed each session of data gathering during the field work. After the field work was concluded, the data was coded and analyzed using open coding which let categories and concepts emerge from the data. The interrelations between these were then analyzed using axial coding which in turn gave rise to the theoretical contribution of this study. In order to position the theory in a broader context and to interpret its implications with the help of related theories, a second round of literature review was conducted after the theory building process. An overview of the full research process can be found in Figure 2.

### 3.3.2 Exploratory Case Study

To collect qualitative data which answers the research question, we conducted an exploratory case study with field work in the reindeer industry in Norrbotten Country in Northern Sweden. Our case includes the biggest reindeer slaughterhouse in Sweden, three connected Sami villages and the local government of the municipality of Arvidsjaur. We seek to explore how the struggle emerges by investigating how the different elements are related. With our research question, which was developed based on existing literature, we assume some degree of complexity between the different elements which needs to be accounted for in the chosen research approach. An exploratory case study is therefore suitable as it allows for an in-depth understanding of the researched phenomenon within its context (Gillham, 2000) and can therefore complement the methodology of pragmatic grounded theory. As suggested by our choice of the interpretive paradigm and the related ontological and epistemological assumptions, the theory developed is highly dependent on the context of the phenomenon as the literature review and the scholars we consulted indicated as the context greatly influences human behavior, thoughts and feelings (Gillham, 2000) all of which create and affect our focal phenomenon. This context-dependency of theory is also in line with the chosen methodology of pragmatic grounded theory (McCall & Edwards, 2021).
3.4 Data Collection

3.4.1 Sampling

We chose our participants purposefully using two different sampling techniques (networking and purposeful sampling) which will be explained in this section. An overview of the interviews can be found in Table 2.

According to Galletta and Cross (2013) selection criteria or inclusivity criteria increase the faithfulness of the research design which is why we defined ours early on. The two selection criteria for the internal perspective were that the participants needed to be part of the industry (reindeer herder or slaughterhouse employee) and have or have had a high degree of involvement in the industry (work in the industry full time). As for the public actor perspective, the only criterion was that the interviewees had to frequently engage with members of the reindeer industry. Additionally, we purposefully looked for a stakeholder who is part of an NGO or private company and works as an incubator or consultant to businesses from the industry and a local resident who is a business partner of some of the industry actors for an additional perspective. The overarching criterion was thereby the experience of the phenomenon under study. Apart from this, we decided to conduct a case study which is why all of the participants had to be from the same county due to the context-dependency of the phenomenon.

We conducted snowball sampling also known as networking, as well as purposeful sampling, which are suitable in this case (Collis & Hussey, 2014). These sampling techniques are also common practice in qualitative research under the interpretivist paradigm where the aim is not to generalize data from sample to population as no statistical analysis is used (Collis & Hussey, 2014). Networking is when the researcher asks whether the participant can refer them to someone else with experience about the phenomenon (Collis & Hussey, 2014).

We began sampling early on in the process, as we learned that it would be difficult to get a hold of participants due to the great scholarly interest in minorities which our experience confirmed and knew that the case would greatly shape our study and research process. This, as well as the importance of familiarity with the participants and the fact that the phenomenon is highly dependent on the context, made networking an appropriate sampling technique which helped us overcome the challenges of getting a hold of members of the reindeer industry. In our case it was one reindeer herder who was recommended to us by a relative and who then started the snowball effect and helped us determine the regional scope (i.e., case) of our study. However,
there are some ethical concerns to this approach (Galletta & Cross, 2013) which will be discussed in the corresponding section on ethics.

Purposeful sampling was used when two external actors (local government and business developer) were contacted, one of which referred us to another individual (from the local government) who met our inclusivity criteria. The local resident was suggested to us by other interviewees as to add an additional perspective. The first local government employee and the business development consultant were found through online research once the geographical location of our study was established through the confirmation of the reindeer herders and slaughterhouse employees. Throughout the interview process, the researchers evaluated together if the point of data saturation had been reached and continued conducting interviews until it was.

Table 2 Overview of Conducted Interviews

<table>
<thead>
<tr>
<th>Date of the interview</th>
<th>Length of interview recording</th>
<th>Alias</th>
<th>Role</th>
<th>Degree of involvement in reindeer industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023-03-09</td>
<td>1 h 23 min</td>
<td>Slaughterhouse Employee 1</td>
<td>CEO</td>
<td>high</td>
</tr>
<tr>
<td>2023-03-09</td>
<td>1 h 5 min</td>
<td>Slaughterhouse Employee 2</td>
<td>Team Supervisor; reindeer owner</td>
<td>high</td>
</tr>
<tr>
<td>2023-03-10</td>
<td>1 h 25 min</td>
<td>Local Resident</td>
<td>Not disclosed</td>
<td>low</td>
</tr>
<tr>
<td>2023-03-13</td>
<td>1 h 10 min</td>
<td>Local Government Employee 1</td>
<td>Business Strategist</td>
<td>medium</td>
</tr>
<tr>
<td>2023-03-13</td>
<td>1 h 41 min</td>
<td>Reindeer Herder 1</td>
<td>Retired full-time reindeer herder; former Sami village Chairman; SH board member</td>
<td>high</td>
</tr>
<tr>
<td>2023-03-14</td>
<td>1 h 32 min</td>
<td>Reindeer Herder 2</td>
<td>Full-time reindeer herder; Sami village Chairman; SH board member</td>
<td>high</td>
</tr>
<tr>
<td>2023-03-14</td>
<td>57 min</td>
<td>Development Consultant</td>
<td>Founder; CEO</td>
<td>medium</td>
</tr>
<tr>
<td>2023-03-15</td>
<td>1 h 8 min</td>
<td>Reindeer Herder 3</td>
<td>Not disclosed</td>
<td>high</td>
</tr>
<tr>
<td>2023-03-30</td>
<td>1 h 15 min</td>
<td>Local Government Employee 2</td>
<td>Sami Coordinator</td>
<td>medium</td>
</tr>
</tbody>
</table>
Table 3 Description of the Interviewed Actors

<table>
<thead>
<tr>
<th>Description of the public/private organizations involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slaughterhouse</td>
</tr>
<tr>
<td>The slaughterhouse is the largest reindeer slaughter</td>
</tr>
<tr>
<td>facility in Sweden and is a cooperative established by four Sami villages. It is currently owned by those Sami villages and co-owned by two other Sami villages. It is also processing meat and has an online shop.</td>
</tr>
</tbody>
</table>

3.5 Data Collection Method and Process

As part of the case study field work was conducted in the form of a 10-day stay in the municipality of Arvidsjaur (Árviesjávrrie) in northern Sweden or Ume Sami (Ubmisápmi) in the cultural region of Sápmi. Two types of qualitative data collection methods were employed, namely, semi-structured in-depth interviews and field observations, both of which are common data collection techniques used in qualitative research (Galletta & Cross, 2013). Interviews and field observations are also common data collection methods in grounded theory (Collis & Hussey, 2014). The decision for going into the field and visiting some of the participants at their place of work or residence is because the alternative to face-to-face meetings would have been video or phone calls which “encourage us to ‘get to the point’ rather than to create meaningful encounters” (Love, 2019, p. 22). This would have contradicted the aim of establishing conversational relationships with the participants, focusing on storytelling, instead of hierarchical ones which often have an oppressive effect (Love, 2019). Furthermore, it allowed us to ask “complex or sensitive questions” (Collis & Hussey, 2014, p. 134).

A total of nine semi-structured interviews with nine individuals were conducted and lasted on average 1 hour and 17 minutes. Two of these interviews were conducted through Zoom due to geographical distance. However, the remaining interviews were conducted face-to-face for the reasons mentioned above.

Semi-structured interviews provide a certain structure which helps ensure that topics identified as being relevant prior to the interview are being covered, while allowing for the interviewee to
direct the focus (Galletta & Cross, 2013). It also allowed us to capture the lived experience of
the participants (Galletta & Cross, 2013) which is of great importance for us to be able to answer
the research question. In preparation for the interviews, an interview protocol was created which
served as a guideline for the interviewers to make sure that the questions aim to explore the
research questions. The interview protocol also included related topics to each question which
were based on literature as suggested by Gioia et al. (2013).

The questions were clustered into three blocks, whereof the first one was generic background
questions about their experience, background, satisfaction with their job and the like. The
second block had broader questions about the struggle we identified, whereas the third block
consisted of questions about more specific things such as certain projects, work processes and
the like. All questions (except for some of the clarification questions in the first block) were
open to encourage long answers (Collis & Hussey, 2014) which would give more room for the
interviewees to influence the direction of the interview and ultimately our research. As data
collection and analysis are done contingently in grounded theory, the initial analysis of the data
informed the subsequent interviews (Corbin & Strauss, 1990). Therefore, the interviewees were
followed by debriefing sessions and memo-writing which in our case were the initial analysis
of the data and helped to identify knowledge gaps and pieces of data in need of verification.
Further, memo-writing was utilized as an integral part of the theory building process by
continuously formulating and revising the theory during the research process as suggested by

Because all interviewees were fluent in Swedish, as it is their first/second language, the
interviews were conducted in Swedish. Thereby, a comfortable atmosphere was created for the
interviewees which made it easier for them to articulate and share personal experiences. The
audio of the interviews was recorded and transcribed automatically using the software Trint and
the transcripts were manually adjusted to align them with the actual interview content. The
transcripts were then translated into English using DeepL and proofread by the two Swedish-
speaking researchers to avoid misinterpretation caused by the translation of the transcripts. In
some instances, clarification notes were added after a particular word or sentence for a more
accurate coding process.
3.6 Data Analysis

Data analysis and data collection are interrelated processes in grounded theory (Corbin & Strauss, 1990). Therefore, our data gathering process and the first-order analysis were conducted simultaneously as shown in Figure 2. The first-order analysis was essentially the debriefing after each interview which was done through open coding, where codes are “simple and topical” (Collis & Hussey, 2014, p. 178), when reviewing and discussing the translated transcripts and the field observations. The outcome of these sessions were memos which help to “keep [the researchers] involved in the analysis and increase the level of abstraction of [the] ideas.” (Charmaz, 2014, p. 162). Through memo-writing, we could identify emerging categories and uncover our assumptions with the goal to “fine-tune [the] subsequent data gathering and to engage in critical reflexivity” (Charmaz, 2014, p. 163). The method we chose to write our memos was keeping a methodological journal as it is one of the memo-writing methods recommended by Charmaz (2014) and does not require thorough coding before. However, the main benefit it brought us was that each memo reflected the status of our data density and helped us keep track of our assumptions as to not “preconceive the data” as Charmaz (2014, p. 165) puts it.

Once all data was collected, we reviewed the memos which already hinted possible theoretical developments. Due to the previously discussed lack of time for analysis in the field, we coded the data in two of three ways suggested by Corbin and Strauss (1990), namely, using open coding (second round) and axial coding, after the research trip.

The descriptive topics and categories distilled through open coding were then related to each other to identify “contexts, consequences, patterns of interaction and causes” which is a process called axial coding (Collis & Hussey, 2014, p. 179). This was done by rearranging the identified categories in different ways through diagramming to discern connections (incl. those of causal nature) and interrelations. The third way of coding suggested by Corbin and Strauss (1990) is selective coding which helps identify weak categories which required more data density. However, we did not perform this type of coding as we knew that we would not be able to go into the field to collect more data after we did the thorough rounds of coding due to lack of time and resources. Nonetheless, we tried to work around this and achieved a similar effect through memo-writing which helped us identify needs for data density while we were still in the field.
3.7 Quality Standards

In order to ensure quality within qualitative research, certain criteria should be respected. We aimed to fulfill the criteria developed by Tracy (2010) for high quality qualitative methodology. They are: worthy topic, rich rigor, sincerity, credibility, significant contribution, ethics, and meaningful coherence.

The focus of this study is on the current struggle of the industry which is timely and relevant for the Sami community, thus, a worthy topic. Great care and effort were put into gathering an equitable amount of rich and meaningful data from our expert informants as well as ensuring the right context and full insights into the industry. We aim for great sincerity by transparently explaining the research process including potential shortcomings and challenges encountered in this chapter. To enhance the credibility and trustworthiness of this study, the research process, including all decisions and argumentations, is explained in detail in the respective sections. As elaborated in Chapter 1, we address a topic that has insufficiently been looked at, as there is a need for a greater understanding of the interrelations between what constitutes the situation the Swedish reindeer industry is situated in which highlights the significance of this study. Since we are researching a sensitive topic, it is highly significant to pay special attention to ethics and to be transparent with ethical constraints. Thus, we dedicated the section below to this criterion. Lastly, this study was written with the aim of bearing meaningfulness and coherence in mind throughout the whole process.

3.7.1 Ethical Considerations

Participant data was acquired, stored and handled in line with the European General Data Protection Regulation (GDPR). We sent the GDPR form to all participants in advance and brought an additional printed version to the place of interview where we explained all parts of the form and participants had the opportunity to ask questions. We made sure to stress the participants’ right of withdrawal from the study and that they will need to approve the quotes used before publishing. We also offered confidentiality of personal information and the participants could choose the degree of anonymity they preferred. As mentioned earlier, we used networking as our sampling technique for some of the interviewees, which gives rise to the concern that confidentiality cannot be guaranteed (Galletta & Cross, 2013). We disclosed the names of those who referred us to the next potential interviewee but made sure to inform the participants in question about this data breach as is required by GDPR (Bos, 2020) and asked if they still wanted to participate in interviews. With some interview participants, such as the ones working for the local government, there was the risk of conflict of interest which was
avoided by explicitly mentioning when something was their own opinion. However, no conclusions of the official standpoint of the local government can be drawn from the data presented in this study. In addition to this, we decided not to publish the names of external industry actors such as specific forestry companies in this paper as they were not part of the study.

Generally, the ethical understanding and considerations were inspired by the *Code of Ethics for Aboriginal and Torres Strait Islander Research (2020)* from *AIATSIS (2022)* which clearly outlines principles of indigenous research ethics and the connected responsibilities for researchers. We ensured to live up to our responsibilities ensuring informed consent, indigenous perspectives and participation, recognition and respect, engagement and collaboration, and benefit and reciprocity. We are aware that the thesis’ limited length makes it impossible to adequately capture some of the severe problems that stakeholders, particularly the Sami, face. We as bachelor students wish to be clear that we are in no way able comprehensively portray all the major issues that the Sami are exposed to. Additionally, we do not wish to take on a ‘top-down’ attitude or ‘study’ the Sami. The difficulties that the industry is facing are illustrated in this thesis to the best of our abilities. Its sole purpose is to help draw attention to the struggle and injustices and increase the overall awareness of the current state of the industry.

### 3.7.2 Generalizability

Although there is some degree of generalizability that can be achieved with a grounded theory study through abstraction (Corbin & Strauss, 1990), this paper does not aim to reflect the situation of the entire Sami reindeer industry, nor does it capture or attempt to capture the entirety of the situation of the industry in the location of this study due to the before mentioned contextual differences. While we are inferring causal relationships between the identified elements, we do also recognize their dependency on the context as is in line with pragmatic grounded theory (McCall, 2013). Despite the complexity of the situation and the fact that conditions vary with context, we do present the conditions we have identified under which the focal phenomenon emerges which according to Corbin and Strauss (1990) allows for some application of the developed theory to other situations, but it needs to be adapted to the local circumstances. Abstraction makes theories applicable to multiple times and locations (Wacker, 2008) which in our case is limited due to the dependency on the context (time & place) which thereby also limits the scope of our theory.
4. Empirical Findings

This chapter presents the findings of the study based on the collected empirical data and showcases the theory building process. Firstly, the results will be presented which correspond to the identified categories and elements through the coding process. Followed by the Analysis of the results which highlights the relationships between the emerged elements as well as the similarities with existing literature mentioned in the Frame of Reference2. Lastly, we present our Theoretical Contribution in form of a process map. The discussion of our Theoretical Contribution in the context of the established theories mentioned in the Frame of Reference will be addressed in the Discussion (Chapter 5).

4.1 Results

In this section, the results of the open coding, and the thereby identified categories and their elements, will be presented. The codes were clustered into the following four categories (see Table 3): challenges the reindeer industry is facing, the needs of the reindeer industry, the adaptation strategies in place as well as overarching conditions that set the context of the focal phenomenon. Some of the adaptation strategies may not be strategies in the traditional sense but rather forms of adaptation. However, for the sake of clarity we refer to all of them as adaptation strategies. As for the challenges, a number of challenges, external as well as internal to the industry, have been identified. However, this study adopts an inside-out perspective which is why only internalized external challenges were included. Due to the inseparability of these two clusters, they will be presented jointly. Apart from that, a variety of needs of the industry and its actors that need to be fulfilled have been identified. These needs are intrinsic as well as extrinsic needs that have been internalized by the industry.

2 The analysis is performed without the consideration of the theoretical perspectives included in the Frame of Reference as this study uses grounded theory.
Table 4 Overview of Challenges, Needs, and Adaptation Strategies and Conditions Emerging from the Empiric Data

<table>
<thead>
<tr>
<th>Needs</th>
<th>Challenges</th>
<th>Adaptation strategies</th>
<th>Conditions</th>
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<tbody>
<tr>
<td>Sufficient resources</td>
<td>Lack of profitability</td>
<td>Acquisition of extra job or industry exist</td>
<td>Missing value recognition</td>
</tr>
<tr>
<td>Sustenance of livelihood</td>
<td>- Lack of profit</td>
<td>Change in business practice</td>
<td>Power asymmetries</td>
</tr>
<tr>
<td>Continuation of industry</td>
<td>- Decreasing in area of grazing land</td>
<td>Changing company structure</td>
<td>Clashing values and culture</td>
</tr>
<tr>
<td>Wellbeing of reindeer</td>
<td>- Deteriorating quality of grazing land</td>
<td>Accepting agreements</td>
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</tr>
<tr>
<td>Business skills</td>
<td>- Decreasing number of reindeer</td>
<td>Collaboration and Lobbyism</td>
<td></td>
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<tr>
<td>Improved regulations</td>
<td>- Fragmentation of Land and Changed Migration Patterns</td>
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<td></td>
<td>- Nature of industry</td>
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<td></td>
<td>- Increased expenditure</td>
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<td>Lack of power</td>
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<td>- Lack of industry prioritization</td>
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<td>- Lack of understanding from society</td>
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<td></td>
<td>- Decrease in workforce</td>
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<td></td>
<td>- Choosing not to speak up or ask for support</td>
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4.1.1 Needs

4.1.1.1 Sufficient Resources

It became evident from the interviews with the slaughterhouse and the reindeer herders that there is a need for sufficient resources for the reindeer such as quality and amount of grazing land. Additionally, the need for supplementary feeding has increased. Since reindeer herders are animal owners, they are required by law to ensure their animals’ wellbeing. Moreover, the need to sustain sufficient resources for future generations was expressed repeatedly. “I am only borrowing this land. I should be able to stand up straight and leave the land to the next generation […]” - Reindeer Herder 3

4.1.1.2 Sustenance of Livelihood

Reindeer herders need to be able to make a living through reindeer herding, which is not always attainable due to profitability challenges (which will later be elaborated on). As a result, some reindeer herders have quit or taken on a second job to make ends meet.

4.1.1.3 Continuation of Industry

Reindeer herding has great value for the reindeer herders, and it is what they love to do and want to continue doing. However, they also need to continue in order for future generations to be able to continue this practice and preserve the culture. Once a family has discontinued its reindeer herding business, it is virtually impossible for later generations to revive the business again since there is a significant loss of knowledge as well as resources in the form of grazing land and reindeer. “[If] I were to become a police officer, I would make it impossible for the next generation [to be reindeer herders]. And my children then would not have that choice. So, it's a pretty big step to take. [...] It really has to be a knife in the throat, I think, for you to take that step. Based on the fact that it affects so many people.” - Reindeer Herder 2
4.1.4 Wellbeing of Reindeer

“As I usually say, if the reindeer are good, we are good.” - Reindeer Herder 3

The love for the reindeer was evident in all interviews with the reindeer herders. They expressed the need to sustain the wellbeing of the reindeer as required by law and keep distress to a minimum, both of which are also intrinsically motivated.

“It’s never really funny [when we are called no sayers], because what people usually don't understand is that we think about our reindeers and that they should be well because then it is good [for us too]. And in order for the reindeer to thrive, there must be land to enable them to move between different lands. People think we say no just to say no but we do not do that. Never feels really good.” - Reindeer Herder 3

4.1.5 Business Skills

A need for the development of business skills was mentioned by some of the reindeer herders which was also corroborated by the development consultant as he had undertaken a project where he and his colleagues offered free courses in entrepreneurship and business administration which was funded by a public organization.

4.1.6 Improved Regulations

All reindeer herders felt frustration and not being listened to regarding the situation surrounding the policy on predator control. It is said to have not changed the situation but that the situation has gotten worse since the 1980s with predator populations having spiked in recent years. One reindeer herder mentioned that he would like to see a limit to the populations of predators as that would improve the situation for the reindeer herders. For one reindeer herder today, approximately half of the calves are lost to predators while another reports around 20% whereas the government reportedly estimates the number at around 10%. This discrepancy was explained by a reindeer herder by highlighting that it is the county administrators who need to take stock of the lost reindeer and not the herders. While there are one-week courses offered by the county administration for those responsible for predators in each Sami village to provide them with the same knowledge the country administrators have, these do not give the herders the authority to provide proof of the lost reindeer themselves. “You have to pay for accommodation yourself and are gone for a week. […] I suppose someone has gone there [to
I refuse to go. I said: As long as I can't document myself, there's no reason I should go. I think I probably have a lot of knowledge about them [predators].” – Reindeer Herder 1

The need is therefore to limit predator populations and to localize predator control as the impact differs greatly between Sami villages. Apart from that, reindeer herders need to be given the authority to provide valid proof to receive compensation that matches the real loss.

4.1.2 Challenges

4.1.2.1 Lack of Profitability

Lack of Profitability

The marketing of reindeer meat as meat that is to be made accessible to the general public has put pressure on the reindeer herders and the slaughterhouse since they supply to wholesalers who want to keep their costs low. Therefore, it is not the actors within the reindeer industry itself who make the largest share of profits, but it happens further downstream towards the wholesalers and retailers.

Moreover, the impact of predation was mentioned as one of the main challenges for profitability by all three reindeer herders and the CEO of the slaughterhouse. The Swedish state compensates reindeer herders for each reindeer that is lost to predation, however, the compensation levels are seen as insufficient as the number of calves that can be officially reported does not represent the real loss. Further, it was evident that the aid system does not support the combination of the cultural and economic value of the reindeer industry.

Decrease in Area of Grazing Land

Encroachment on Sami land by external industries, such as forest and mining industries as well as the car and train testing industry, has increased. This has led to shrinking grazing lands, which are the primary resource for keeping reindeer. The shrinking land has been linked to an aggravation of potential conflict between and even within Sami villages. Conflicts between Sami villages usually revolve around transgressing of the village borders whereby they enter pasture areas they are not supposed to enter. These conflicts and the culture around competition have posed challenges to cooperation. “There is quite a lot of competition both within the Sami communities and between the Sami communities. The system is almost built [in a way that] you have to compete for the same resources and try to […] take as large a part of this cake as
possible so we had a lot of friction with the Sami communities. An enormous amount of friction, I would say.” – Reindeer Herder 2

**Deteriorating Quality of Grazing Land**

In Arvidsjaur municipality, forestry companies’ logging practices, such as clear-cutting, have led to a deterioration of the pastures. This is evident in the disappearance of lichens, which are the most important food source for reindeer during the winter. “[...] we have had major problems with [name of large forestry company]. This is the single biggest impact on reindeer husbandry. It is the modern forestry that started in the 70s and has affected us so incredibly much [...].” – Reindeer Herder 2

**Decreasing Number of Reindeer**

As the grazing land is shrinking, so is the number of reindeer that can be sustained and sustainably kept by the available land. The slaughterhouse reports that its supply base is decreasing every season. Fewer reindeer means less slaughter which puts the slaughterhouse and the livelihoods of reindeer herders in jeopardy. Apart from direct effects on the profitability of the industry, it also implies difficult staffing planning and excess (temporary/seasonal) staff that needs to be paid.

**Fragmentation of Land and Changed Migration Patterns**

The reindeer herders have observed changing behavior and migration patterns from their reindeer which they link to the encroachment of external actors. They are causing shrinking grazing land and fragmentation thereof, as well as increased snowmobile traffic due to wider adoption of snowmobiles and increased tourism. These changes in land structure have cut off migratory routes whereby some herders have to move their reindeer with transporters between winter and summer grazing land. Moreover, wind parks and forest logging have changed the migratory behavior of the reindeer which has made herding more time-consuming.

**Nature of Industry**

Due to the seasonality of the slaughter, the slaughterhouse is struggling to find enough qualified staff, which makes it harder to plan long-term. Additionally, the price offered for a reindeer determines and highly influences the business operations. Lastly, the industry is decentralized as reindeer herders in a Sami village are sole proprietors, thus they can sell their meat to
whoever they want even though the chairman of a Sami village might advocate for selling to the focal slaughterhouse as it would be in the collective interest.

**Increasing Expenditure (Timewise and Financial)**

All reindeer herders report that their profession has become more capital intensive due to the following reasons. (1) Through the economic development of Sweden, the reindeer herders’ standard of living has naturally increased which has created the need for higher income. (2) The wide adoption of technological working tools to make herding more efficient amidst changed migratory behavior has also increased costs for reindeer herders. (3) Due to deterioration of grazing land and climate change, reindeer herders are forced to feed their reindeer pallets which is an additional unprecedented cost. (4) The regulations (many of which are driven top-down) require an increasing amount of complex administrative work for which the reindeer herders lack funds and sometimes knowledge, which is why some of them use accounting services and external providers for which they pay themselves.

Apart from the increase in financial expenditures, reindeer herding has also become more labor intensive. (1) Reindeer herders who do not or cannot outsource their administrative obligations need to spend an increasing amount of their time on such tasks, which leads to less time spent with their family or outside with the reindeer. This also includes legal processes and consultation meetings to make use of their land rights and withstand extractive and car-testing industries. (2) As mentioned before, shrinking and fragmented land is impacting the reindeer migratory patterns whereby the practice of herding and herd management has become more time-consuming. “My free time is meetings, meetings and developers\(^3\) that email us. It is really not what I imagined. We want to be out in the forest with the reindeer”. -Reindeer Herder 3

\(^3\) In Swedish the word for ‘exploiter’ and ‘developer’ is exploatör. In this context the interviewees are referring to external industries.
4.1.2.2 Lack of power

Lack of Industry Prioritization

Through the conversation with multiple reindeer herders and the local government representatives, it became evident that the consultation and dialogue meetings held with the external industries who are competing for the land resource are not viewed as particularly helpful from the reindeer industry’s side. The external industries are obligated to get approval from the reindeer herders if their activities will limit the reindeer herders in their operations. However, the reality shows that despite these meetings, the reindeer herders’ rights are not always upheld: “We were at a consultation meeting where the Sami village opposed an area where it was to be logged. And then I know they said, ‘But what are you going to sit here and say?’ Forestry in Arvidsjaur has over 300 employees. You are some reindeer herders so you should really just be quiet. Some of that mentality still exists.” - Reindeer Herder 1

Lack of Understanding from Society

The feeling of not being listened to as well as the understanding of how complex reindeer herding is from externals was one reoccurring element that the reindeer herders expressed as a challenge and something that needs to change. Especially during consultation meetings, the reindeer herders often feel that they are not being listened to almost as if they must prove the importance of the industry.

“It is frustrating to not be listened to but you are so used to it. Every single developer that you meet goes like: Yes, yes, yes, yes. But still, they did not really listen to you. If I say that this is not possible, they ask, ‘Don’t you think if you do it like this...?’ – No this does not work. That implies that they are not listening.” - Reindeer Herder 3

“Do you think anyone listens to us? Money rules a lot in this world.” - Reindeer Herder 3

Decreasing Workforce

Because of the low profitability of the reindeer industry as well as the accumulation of the challenges that reindeer herders are facing, more and more herders are opting out of the industry. Many reindeer herders are struggling to sustain their livelihoods from the herding business alone and are therefore either acquiring additional jobs in, for example, mining companies or opening a side business in, for example, tourism.
“You have to have credibility in what you do, in everything that you have to argue against exploiters, against predators, against the forestry industry, it is an exploiter, but if they in turn claim ‘yes’. Well, no. 70% of the time you work on other things. Why is it so important? It’s a hobby you do.” - Reindeer Herder 1

Another reason for the decreasing workforce is the uncertainty whether the children of the reindeer herders will be willing to take over their fathers’ businesses but rather pursue a more profitable profession. Additionally, there is a lack of female role models in the reindeer industry which leads to it remaining a male dominated occupation.

Apart from this, the slaughterhouse has difficulties staffing due to the seasonality and the unpopularity of the butcher profession in Sweden which is why it hires seasonal workers from Czechia. Another related challenge is the lack of accommodation in Arvidsjaur due to the competition with other industries. As a result, the slaughterhouse is planning to build its own apartments to accommodate seasonal workers.

**Choosing not to Speak Up or Ask for Support**

The cultural notion that one should be able to cope with problems on one’s own has resulted in many reindeer herders choosing not to speak up or ask for support. This also applies to the avoidance of conflicts with local residents. For example, reindeer herders actively chose not to ask local governments for strict bans for local residents and tourists to drive snowmobiles. Since they recognize the importance and value driving snowmobiles has for the local community, they try to cope with it somehow. It was also evident that there is a lack of trust in government actors which further amplifies the reluctance to ask for support.

Moreover, there is a frustration related to consultation meetings as some are not perceived to be fruitful but rather amplify the feeling of not being listened to as the following quote illustrates.

“…so-called consultations that have not been real consultations but were more like [name of large forestry company] said now we want to log there, and when the Sami village says no don’t log there, they say okay then we’ll log here instead. […] My husband has been to these consultation meetings. He stopped going to them because he thought it was that way. […] The whole society needs to change its attitude that it is not the Sami villages… They actually have no power to say no to anything” - Local Government Employee 2
4.1.3 Strategies

4.1.3.1 Acquisition of Extra Job or Industry Exit
As previously mentioned, acquiring an additional job or opting out of the industry is often the only solution as the reindeer herders need to sustain their livelihoods and herding alone is not profitable enough.

4.1.3.2 Change in Business Practice
Unequal profit distribution along the value chain created the need to increase the industry actors’ share of profits made throughout the value chain. To achieve this, the slaughterhouse is simplifying the value chain downstream by moving the meat processing in-house and selling directly to the customer through their own online shop. The products are sold as part of the newly created premium brand “Njálgies” (Sami for “delicious”).

Another change in business practice is the use of technology such as helicopters to adapt to the situation of change in land etc., as previously mentioned. Lastly, reindeer herders have been forced to use supplement feeding to prevent their reindeer from starving during bad winters.

“We have been feeding reindeer for a long time with many bad winters and we see a change in the reindeer’s behavior that they are worse at digging out the food. […] And now we’ve been doing it for maybe 15 years. […] What will it look like in another 30 years, how will the behavior have changed?” - Reindeer Herder 2

4.1.3.3 Changing Company Structure
Some of the reindeer herders have changed their company’s structure to prevent resource competition within families for example. By owning a limited company together, they can share the profits and costs, which would not be possible to the same extent in sole proprietorship. Lastly, one way to adapt to bad winters with low access to lichens is to strategically decide which animals of the herd to slaughter. This thinking is similar to other types of meat production, where higher yields are the aim and not just the herds’ growth.

4.1.3.4 Accepting Agreements
There have been instances where the only possible way to cope with external industries whose activities will affect the land in some kind of way, is to “accept” compensation in terms of
agreements and financial compensation for the land that will be lost. This is to avoid litigation work and related expenses.

4.1.3.5 Collaboration and Lobbyism

The collaborative decision to establish a slaughterhouse has provided the Sami villages with a market for selling their meat. As it was started collectively by several Sami villages, it has generated a better dialogue between the Sami villages, even outside of the board meetings. Another instance of collaboration identified was the collaboration with the Swedish Society for Nature Conservation (Naturskyddsföreningen) and Greenpeace to lobby for the protection of grazing land. “I think that the pressure on [name of large forestry company] is more effective than if it had only been the reindeer industry, it would have been difficult to get through.” – Reindeer Herder 2

The strategy used by reindeer herders to adapt to the challenge of predators is lobbyism which is done in collaboration with SSR. The issue is one of the discussion topics taking center stage at meetings between Sami villages and SSR. The Sami Parliament could also play a role in this, but some interviewees mentioned that internal issues are impeding the efficiency of the institution. Collaborations are also used by the slaughterhouse to keep staff busy and thus prevent loss in profit. This is done by collaborating with logistics providers and other slaughterhouses.

4.1.4 Conditions

4.1.4.1 Missing Value Recognition

It was evident from interviews how the raw material in terms of the reindeer is not valued in the value chain. The reindeer has the same value as meat in any other meat production which creates the pressure in the value chain to lower the price. Furthermore, some of the interviewees describe a feeling of the industry not being prioritized by the local government in many instances. Even though most interviewees perceived the dialogue with the local government to be good and transparent, they also observed that the local government seems to assess the value of an organization based on firm size (in number of employees) and the number of jobs created. Thus, the reindeer industry is often not prioritized over “bigger” industries, not least because of the decentralized nature of the industry.
4.1.4.2 Power Asymmetries

When it comes to finding agreements with external industries, power asymmetries have been identified. Individual Sami villages consist of a small number of sole proprietors which means they have limited resources. However, most land use conflicts are with large companies with more resources for legal processes. Thus, the Sami villages are disadvantaged to start with and have overall less bargaining power.

When, for example, deciding if a new car testing track should be built, the local government has the final decision-making power. This further reflects power asymmetries between the local government and the Sami villages since the local government may have other interests than reindeer herders which are then being prioritized.

4.1.4.3 Clashing Values and Culture

The prioritization of the car testing industry, as an example, shows how there are sometimes clashing values and culture between reindeer herders and other actors. Most of the reindeer herders expressed that they want the municipality to thrive, which is why one Sami village took the initiative to suggest that the airport in Arvidsjaur could be built on a part of their grazing land. However, the local government is perceived by the reindeer herders to focus too much on growth of the municipality in economic terms. This also relates to the external industries not accepting a “no” as they do not recognize limits of resources in the same way as reindeer herders do. Growth is not necessarily the purpose or the goal for the reindeer herders and some of them even have negative connotation with the word.
4.2 Analysis

In this section, the results of the axial coding, and the thereby identified relationships between the elements will be analyzed and linked to findings in existing literature. However, due to the high degree of complexity of the interrelations between the individual elements, only some examples, which allow us to demonstrate the different ways the elements are interrelated, will be discussed.

There are three overarching conditions evident from the data that set the context in which the struggle exists and therefore influence the Swedish reindeer industry. These are: missing value recognition, power asymmetries, and clashing values and culture.

Missing value recognition was evident in the perceived lack of understanding from society and industry prioritization by industrial and political actors as herders often must participate in non-useful dialogues with external industries as well as explain the complexity of reindeer herding and the impact of land changes on the industry. This finding is related to the reasoning by Du Plessis (2020) being driven by the Western mindset of consumption, profit, and growth and how its impact is putting the reindeer industry at risk.

Furthermore, the effects of land use by large corporations were described to be highly influenced by power asymmetries, which was highlighted by many participants and also backed up by findings in existing literature (Fjellheim, 2023; Persson et al., 2017; Sandström & Widmark, 2007). However, in our Process map we show that these consequences are not only driven by power asymmetries, but also further amplify and reinforce these power imbalances. As these consequences challenge the viability of reindeer herding, herders have to find other sources of income or concede to unfavorable agreements with external industries if legal processes become unaffordable, both of which in turn reinforce power asymmetries thus aggravating the consequences.

Apart from land use competition, according to our data, the lack of profitability also results from a lack of value recognition within the industry’s value chain. This is because the industry has been reduced to merely supplying meat and the meat being marketed as just some other kind of meat and was to be made accessible to the masses. The view of the reindeer as a raw material has created the desire in the value chain to lower the price, which is connected to
findings by Benjaminsen et al. (2015) who suggests that this complex industry with its social, cultural and environmental contributions is being simplified to solemnly a meat industry.

This further demonstrates how there are clashing values which were also emergent in terms of how the aid system does not support the combination of the cultural and economic value of the reindeer herding industry. The lack of value recognition is also evident in the political realm, which is due to the following. The first of which is the political focus on company size (i.e., number of employees), whereby larger companies are often prioritized. Some reindeer herders and the consultant (referring to a municipality that is not Arvidsjaur) had the perception that this is the case for the local government. As potential reasons for this, the focus on growth was mentioned which is not a goal of many reindeer herders. Due to the decentralized nature of the industry, where Sami villages are a group of independent sole proprietors, political actors are perceived to have difficulties recognizing the economic value of these companies when juxtaposed with larger firms. This is similar to the conflict between the Swedish governments plan to expand the mining industry in indigenous lands and how this conflict is strongly impacted by power dynamics (Persson et al., 2017).

Apart from these overarching conditions and their influences, there are also numerous interrelations between the different needs, challenges and adaptation strategies which will be analyzed in the remainder of this section.

The results present several needs the industry must fulfill which are extrinsic but internalized and/or intrinsic. An example of a need that is both extrinsic and intrinsic is the ‘Wellbeing of reindeer’ as the law requires that the reindeer are cared for and cannot be left to die while the herders themselves ascribe great importance to the wellbeing of their animals and aim to fulfill this need at any time. Many of the challenges impede the fulfillment of needs while some also give rise to certain needs. An example of this is the need for business skills which is partially extrinsic as business plans may be required in applications for financial aid as well as intrinsic as it results from the challenge of profitability which may be met with a change in business practice or structure for which business skills are needed.

The land changes brought about by the external industries result in higher operation costs and less available grazing land which leads to smaller herds, which in turn reduces profitability for
the herders and results in less supply for the slaughterhouse. The higher operation costs are a result of the strategies used to adapt to the changes, such as the use of technology to make herding more time efficient, supplement feeding to deal with deteriorated grazing land and transportation to adapt to land fragmentation. The use of technology also contributes to a loss of traditional herding practices as also discussed by Rasmus et al. (2022).

In response to this inability to make ends meet, many reindeer herders either (1) opt out of the industry, (2) have a part time job in for example mining or (3) engage in reindeer tourism. This relates to the findings of Heikkinen (2007) showing how reindeer herding communities struggle to find workforce. It also resonates with the fact that indigenous business operations are being impacted by globalization (Spencer, 2008) and labor market competition with corporations entering indigenous territories for resource extraction (Colbourne & Anderson, 2020). The direct consequence of people opting out of the industry is the failed transfer of traditional knowledge of reindeer herding. The indirect consequence of less practitioners in the reindeer industry is less bargaining power in political decision-making processes and thereby further amplifies the already evident lack of power. This effect was found to occur even when reindeer herders take on part-time jobs to support themselves as authorities or exploiters may argue that their livelihoods do not depend on reindeer herding. This is very much connected to Rønning (2007) who claims how it is crucial to combine ongoing self-employment in traditional reindeer husbandry with adjustments and the formation of new businesses that can enhance economic performance while also preserving a cultural legacy.

The perceived uselessness of dialogue with extractive and car/train testing industries is a challenge for the reindeer herders since they want and need to protect their land for themselves and future generations in order to be able to continue their lifestyle and preserve their culture. Having to participate in these meetings leads to higher expenses for the reindeer herders and less time for herding. Since these consultation meetings are an extra effort outside of the herders’ daily business operations, some herders hire, for example, a development consultant to substitute for them in these meetings and to represent their interests. Ultimately, the uselessness of the consultation and dialogue meetings further diminishes their power as it in itself is a result of power imbalances as has also been shown by Sandström and Widmark (2007). The meetings, furthermore, decrease the profitability for the reindeer herders as they increase expenditure which in turn results in less power. The struggle of not being able to ‘say
no’ and use their rights has resulted in some Sami villages having to accept agreements as a last resort to avoid litigation and having no agreement at all. However, this results in enormous consequences since the agreements do not take into account the long-term effects of losing grazing land and the impact on reindeer herders is often greater than anticipated. The reindeer herders therefore refer to these agreements as ‘agreements that no one is satisfied with’.

On the basis of the interrelations outlined in this analysis, it is possible to discern a pattern of interrelations between challenges, needs and strategies to address them. This pattern exists in a context of three conditions – namely missing value recognition, power asymmetries, and clashing values and culture – and is highly influenced by it. This takes the form of a process and is the Swedish reindeer industry’s struggle for survival. This process will be described and demonstrated more clearly in the following section.
4.3 Theoretical Contribution

Legend
1. Needs emerging from challenges and vice versa
2. Overcoming the challenges with adaptation strategies
3. Creating new challenges from the adaptation strategies
4. Reinforces challenges

Figure 3 Process Map Illustrating the Struggle of the Reindeer Industry in Norrbotten County, Sweden
With our theory we aim to contribute to the understanding of the elements and interrelations that constitute the struggle faced by the Swedish reindeer industry in which its viability is challenged. This is achieved with the process map of the Struggle which was developed through the data analysis and is grounded in the empirical data we collected and is illustrated in Figure 3.

According to Whetten (1989), a theory consists of four blocks, namely, concepts that are a part of the explanation of the phenomenon, the propositions which indicate how the concepts are interrelated, the logic which explains why these concepts are interrelated as well as the boundary conditions or assumptions under the phenomenon exists. All these buildings blocks are present in our theoretical contribution as will be demonstrated in the remainder of this section.

The concepts of this theory are all elements of this visualization, except for the arrows which indicate interrelations between these elements, which were presented in the results section. The industry exists in the national context of Sweden which is represented by the large box and the overarching conditions influencing the struggle of the industry in this context are missing value recognition, power asymmetries as well as clashing values and culture. The reindeer industry, which is represented by the smaller box in the center was the focus of this study and its struggle constitutes of internalized extrinsic and intrinsic needs, first-order challenges as well as strategies to adapt to these challenges and new challenges.

The propositions of this theory are the interrelations between these concepts which were identified in the analysis and essentially illustrate how the struggle of the industry is taking shape are the contextual influences of the conditions, (1) needs arising from and giving rise to certain challenges, (2) adaptation strategies used to overcome the challenges which in turn (4) reinforce the original or create new challenges some of which might then again (1) influence the industry’s needs. As was discussed in the analysis and is shown by the interrelations of the elements which make up the industry’s current situation, it becomes evident that the struggle of the reindeer industry takes the shape of a complex process which is the logic of this theory. It is therefore also the answer to our research question.
This theory is context-specific due to numerous reasons all of which have been discussed before and is therefore only directly applicable to the context of the reindeer industry in Norrbotten County in Northern Sweden. However, we refer to it as the struggle of the Swedish reindeer industry, as some concepts and even the process logic of the theory may be observable in other areas of Sweden where the reindeer industry exists. A more detailed discussion about the generalizability of this theory can be found in the corresponding section in the Methodology Chapter 3.
5. Discussion

In this chapter, the presented theoretical contribution will be discussed in connection to the established theories explained in the frame of reference. Furthermore, the discussion will be opened up to address the larger implications of the findings. Ultimately, a range of recommendations for practitioners as well as the limitations of this study will be addressed.

5.1 Discussion of the Theoretical Contribution

The opening of this thesis elaborated on the concept of creative destruction by Schumpeter (2010) and the notion of constantly evolving economies. According to Schumpeter (2010), it is the productive and efficient industries that ultimately sustain, supposedly, in line with the interests of society. This approach can be questioned since insufficient recognition of diverse forms of value creation can result in industries such as the reindeer industry not being adequately recognized. This is something that the process map clearly indicates. In purely economic terms, reindeer husbandry is not productive or efficient, because of conditions it is exposed to and the system and context it is situated in. The process map indicates that the industry lacks productivity and efficiency, which is factors contributing to its “struggle for survival”. The notion of unlimited, rapid economic growth is still eminent in mainstream economics (Daly, 2013) even though it is simple to understand and clearly logical, that on a planet with finite resources, infinite growth is impossible. Thus, one needs to problematize the ubiquitous assumption that underlies traditional notions of growth which include the idea that resource extraction can proceed without causing environmental damage or resource depletion, and the idea that economic growth enhances the wellbeing of all (Banerjee et al., 2020; Jackson, 2009). The reindeer industry finds itself amidst a system which is built around and targeted at growth, while the industry itself is bound to the limited resources available and therefore cannot and does not want to grow endlessly.

The empirical findings gave rise to many of the same issues that are covered in the indigenous environmental justice theory as explained by Dent et al. (2023). Our theoretical contribution identified challenges related to the maldistribution of resources illustrating the need for distributive justice. Indigenous environmental justice theory further recognizes the importance of intergenerational relations and a worldview based on the close relationship with nature. In the Process map this is also reflected in the problem of clashing values and cultures as well as
the needs of *continuation of the industry* and *wellbeing of the reindeer*. The need for tribal sovereignty is addressed in the theoretical contribution by highlighting the issue of lack of power.

The Sami parliament’s President Aili Keskitalo has called the recent development of the energy transition efforts at the costs of Sami communities “green colonialism” referring to the green transition intensifying colonial losses of rights and land (Normann, 2021). Green colonialism can reinforce existing power asymmetries, since the dominant groups maintain their economic and political power by controlling the access to resources and by steering the decision-making process (Mercer-Mapstone et al., 2019). The threat of losing their respective land through resource extraction was identified as a form of structural and cultural violence by Sehlin MacNeil (2017). Even though Sami reindeer herding practices are not the biggest contributors to climate change, they are among the most exposed to its consequences (Fjellheim, 2023) showing that there is environmental injustice at hand.

Resources have been managed and protected by Sami for millennia and are still protected today in an attempt by reindeer herding communities to secure the viability of reindeer herding. This may ultimately benefit the longevity of forest companies as they may be compelled to develop more sustainable ways of logging and forest management. However, as Du Plessis (2020, p. 361) points out “the point is not that Sámi and reindeer forms of life should be protected because they can save the West from itself”.

Brundtland’s (1987) definition of sustainable development and the later expansions to it (e.g. Imran et al., 2014; Raworth, 2017; Steffen et al., 2015) highlight that for sustainable socio-ecological systems, current and future generations’ needs must be fulfilled while respecting environmental limits. The theoretical contribution suggests that the reindeer industry is in a situation where its key actors cannot meet their needs because, as defined by Raworth (2017) social thresholds (such as social equity and work and income) and ecological thresholds (such as land conversion and biodiversity loss) are surpassed. Thus, the reindeer industry is outside a safe operating space for the economy and society causing a situation in which the reindeer industry and its key actors cannot meet their needs. Related to this we found that the Sami’s resistance to large scale resource extraction is not based on a disapproval of green transition or technological advancements, it is based on the fundamental understanding that resources are
limited and therefore they need to be protected and preserved for future generations to come which is in line with sustainable development theories.

Our process map and the empirical results show the role of numerous stakeholders in the focal phenomenon thus it can be beneficial to observe it from a stakeholder perspective. Stakeholder theory illustrates that an organization needs to manage the sometimes conflicting interests and expectations of those who are affected by and affecting an organization and its operations (Freeman, 1984, p. 46). The reindeer industry generates values for industry-internal and external stakeholders in three different ways. These are namely, (1) enabling the lifestyle and sustaining the livelihoods of reindeer herders, (2) the cultural value carried by the industry, and (3) the spillover effects of the industry. The latter is supported by (Nilsson, 2014), in terms of the economic development of the local community and other industries (e.g., snowmobile manufacturers) as well as job creation and by(Riseth et al., 2010) who argues for value of the traditional ecological knowledge carried by Sami reindeer herders. Despite this, the industry is also affected by numerous stakeholders such as the extractive industries, public authorities and other local residents. In addition to these stakeholders our data shows that the environment and the reindeer are also the industry’s stakeholders and are considered as such as for example the reindeers’ wellbeing and their behavior are at the center of many adaptation strategies. According to (Banerjee et al., 2020) indigenous ontologies are deeply rooted in the understanding that economic objectives are subordinal to ecological criteria and social wellbeing which is supported by our findings. The need to balance the external stakeholders’ interests with the internal stakeholders’ needs within a context where the industry as a stakeholder with its interests is often not prioritized can be said to create the processes that constitute the industry’s challenging situation as shown in our model. This implies that if the actors to which the reindeer industry is a stakeholder would understand and consider the needs and interests thereof, the industry’s viability would not be at risk as it is now. If this was to be realized, the conditions illustrated in the process map of the struggle would change in favor of the coexistence of the reindeer industry and its stakeholders.
5.2 Recommendations

The following paragraphs summarize some of the recommendations we can make based on our study. We identified a need for structural change all the way from the national down to the local level which can be initiated by the recognition of the industry’s real value and the adoption of measurement and evaluation systems that take those values and infringements on those values into account. Moreover, there is a need for localization of regulations and interventions (incl. development projects) as was shown by the discussion on the predation problem. This requires listening in order to understand the local circumstances, which may be improved through the upcoming law on consultation. However, as our process map shows, the implications of such laws also need to be understood and accounted for. Recognizing the limit of resources (e.g., workforce and time) can lead to better forms of support which extend beyond financial compensation. Hence, a way forward could be to support and collaborate with development companies, such as represented by the development consultant in our study, that can function as a knowledgeable intermediary between the industry and public actors.

The need for recognition of limits extends to the area of responsibility of the external industries which, in simple terms, can mean the acceptance of a “no” from the Sami community or other stakeholders. On that note, it is important to recognize potential cultural differences and not to exploit them. Even if a project is approved, external industrial actors still need to be held accountable for the real long-term costs they are creating which then need to be become part of project evaluations and the connected compensation.

There is an increased need for collaboration between members of the reindeer industry which can improve its collective power as well as for collaboration with external actors such as interest groups which can increase the visibility of the reindeer industry. This collaboration is already taking place but should be increased as a way forward. There are reasons as to why many cooperative slaughterhouses have failed but more of such slaughterhouses can improve the collaboration and conflict resolution among Sami herding communities despite generating price increases as was the case in Arvidsjaur after the establishment of the focal slaughterhouse in this study. The industry would benefit from the learnings of the slaughterhouse as it is a success story.
5.3 Limitations

In this study we have looked at the Swedish reindeer industry within the specific region of Arvidsjaur, Norbotten County at the current point in time. Even though the data collected is from one region only, the insights provided by this study can facilitate the understanding of the current challenging situation of the entire Swedish reindeer industry. The conversation-like nature of the semi-structured interviews led to a diverse range of insights and topics covered, which cannot be standardized and are not reproducible.

The interviewees were chosen to ensure a diverse range of perspectives from the industry’s stakeholders to gather comprehensive insights. However, the purpose of this study was to show the struggle of the industry from an inside-out perspective. Thus, the interpretation and analysis of the data was limited to reflect the industry's perspective only. If the aim of this study had been a more objective assessment, one would have needed to interview more diverse stakeholders including representatives from the extractive and car-/train testing industries and reflect their perspectives in the outcome.

The large quantity of data gathered combined with the limited time available due to the structure of the undergraduate-level course this thesis was part of, bore difficulties. Because of the depth and richness of the collected data through the combination of grounded theory and exploratory case study as our methodology of inquiry, the data collected is context-specific which leads to limited generalizability. Within indigenous research however, there is a need to refrain from the generalization of indigenous issues (Porsanger & Seurujärvi-Kari, 2021), thus we do not claim that the empirical data in this study can or should be applied to other contexts, industries or indigenous peoples.
6. Conclusion

This section concludes the study and its findings, showing the struggle of the reindeer industry in the specific context of Norrbotten County, Sweden.

The purpose of this study was to deepen the understanding of the interrelations that constitute the struggle faced by the Swedish reindeer industry and to do so from an inside-out perspective. By mapping out the struggle based on the perception of the key stakeholders, it took shape in the form of a process including the interrelations between the challenges, needs, and adaptation strategies in its unique context. Through the theoretical contribution, this study fulfills its purpose.

The empirical findings conclude that there are three significant conditions that affect the reindeer industry, namely missing value recognition, power asymmetries, and clashing values and culture. The introduced process map of the struggle illustrates how the reindeer industry is situated within the national context of Sweden and thereby exposed to a set of conditions which lead to/influence the identified struggle. The situation was found to play out in the form of a process where needs are emerging from and giving rise to the challenges which are impeding the industry’s ability to fulfill its needs, while some of the challenges are overcome through adaptation strategies some of which have been found to create new or reinforce existing challenges.

This study makes a distinctive contribution by recognizing the struggle as a process and further mapping it out as such in its full complexity and in respect to its context. The developed theory contributes to the understanding of the industry’s current challenging situation and may form the basis for identifying what changes are needed for the survival of the industry.

"‘It’s not the reindeer that feed the herders anymore, it’s the herders who feed the reindeer’, many say." - Reindeer Herder 2
6.1 Suggestions for Further Research

As mentioned in the limitations of this study, we have focused on the reindeer industry within the Norrbotten County which leaves room for further studies addressing the same phenomenon in a larger context as the elements and interrelations constituting the situation of the industry may vary between different regions or countries. Further research could also be addressing the perspectives of all stakeholders to the industry which could lead to the discovery of potential solutions or necessary changes to improve what has been identified as the struggle of the industry and thereby enhance its viability. Another suggestion for further research is the in-depth investigation of the phenomenon applying sustainable development theory and models such as Doughnut Economics. Finally, the discussion of our theory suggests that the Sami reindeer industry may have a different approach to stakeholder management which deserves to be studied further, for which we advise using, again, an inside-out perspective.
7. References


Appendix 1: Svensk sammanfattning


Syfte: Syftet med denna studie är att bidra till förståelsen av de samband som utgör den kamp som den svenska rennäringen står inför, där dess genomförbarhet utmanas.


Appendix 2: Definition of Indigenous Peoples

Indigenous peoples are “tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations; peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.” Furthermore, “Self-identification as indigenous or tribal shall be regarded as a fundamental criterion for determining the groups to which the provisions of this Convention apply”. ("Convention C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169),")
Appendix 3: Example Interview Guide

In line with the grounded theory approach, we revised the interview questions after each conducted interview to build on the knowledge provided by previous interviewees. Furthermore, the interview questions were tailored to the specific stakeholder, asking about their experiences and perceptions as part of the reindeer industry. The interviews were semi-structured and done in a conversation like manner with spontaneous follow up questions asked by the interviewers. The following is an exemplary interview guide for an interview with a reindeer herder:

**General information:**

1) Please state your name and role within the industry
2) Share your experience of being a reindeer herder
   a) for how long?
   b) why did you choose this profession?

**Background on reindeer herding:**

3) In your perception, what role does reindeer herding play?
   a) personally
   b) for the community
   c) globally
   d) the future of the Sami community / reindeer industry
4) How has your work changed over time?

**Challenges, needs and strategies:**

5) What challenges do you experience for your reindeer business and the industry?
6) How do you think these challenges are connected?
7) Which external factors and pressures influence your work?
8) How do you deal with these pressures and challenges?
9) What is it that your business would need in order to thrive?
10) In your opinion, what changes need to occur for the reindeer industry to be able to survive long-term?
### Appendix 4: Detailed Data Results Table

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Challenge Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased competition over resources because of shrinking grazing land</td>
<td>External: Wind farms, Car-/train testing, Forest logging, Mining&lt;br&gt;Internal: Competition and conflicts between Sami villages</td>
</tr>
<tr>
<td>Decreasing quality of grazing land</td>
<td>Forest logging</td>
</tr>
<tr>
<td>Decreasing number of reindeer</td>
<td>External pressures (shrinking land, etc.)</td>
</tr>
<tr>
<td>Fragmentation of land and changed migration behavior of reindeer</td>
<td>Wind farms, increased snowmobile traffic</td>
</tr>
<tr>
<td>Increased number of traffic accidents involving reindeer</td>
<td>Lack of local knowledge of foreign car testers</td>
</tr>
<tr>
<td>Increasing expenditure (timewise &amp; financial)</td>
<td>Laws, regulations (e.g., new law on consultation) and legal processes</td>
</tr>
<tr>
<td>Perceived uselessness of dialogue meetings</td>
<td>Unwillingness of external industries to accept a rejection of a project</td>
</tr>
<tr>
<td>Decreasing workforce</td>
<td>Increasing number of reindeer herders opting out of the industry, competition with higher paying jobs&lt;br&gt;Decreasing number of successors because lack of female role models, failure of knowledge transfer and impossibility to start new herding business from scratch</td>
</tr>
<tr>
<td>Perceived uselessness dialogue meetings</td>
<td>Avoidance of conflicts with local residents&lt;br&gt;Cultural notion that one should be able to cope with most on one’s own&lt;br&gt;Lack of trust in government actors</td>
</tr>
<tr>
<td>Financial loss due to predation</td>
<td>Predator control policy&lt;br&gt;Insufficient compensation &amp; difficulties recording loss</td>
</tr>
<tr>
<td>Lack of industry prioritization</td>
<td>Political focus of company size and tax revenue&lt;br&gt;Perception of industry purpose</td>
</tr>
<tr>
<td>Unequal profit distribution along value chain</td>
<td>Perception of industry’s purpose as meat supply (cheap raw material; goal: wide adoption)</td>
</tr>
<tr>
<td>Struggle of finding enough and qualified staff for slaughterhouse</td>
<td>Seasonality, low popularity of profession, lack of accommodation</td>
</tr>
<tr>
<td>Difficulties with financial aid applications</td>
<td>Lack of time and skills; aim and structure of aid programs not suitable</td>
</tr>
<tr>
<td>Difficulties to plan long-term</td>
<td>Samebys’ reluctance to enter partnership contracts&lt;br&gt;Price competition with other slaughterhouses&lt;br&gt;Lack of business skills on the board</td>
</tr>
<tr>
<td>Reindeer Industries Needs</td>
<td>Adaptation Strategy</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sustain livelihood and protect culture</td>
<td>Opting out of the industry or acquiring an additional job</td>
</tr>
<tr>
<td></td>
<td>N/A (protection of culture – result: language and practices being lost)</td>
</tr>
<tr>
<td>Sufficient resources for reindeer</td>
<td>N/A (reaction: reducing number of reindeer)</td>
</tr>
<tr>
<td></td>
<td>Lobbying with SSR</td>
</tr>
<tr>
<td></td>
<td>Collaborating with Naturskyddsföreningen and Greenpeace</td>
</tr>
<tr>
<td></td>
<td>Changing company structure to prevent internal size/resource competition</td>
</tr>
<tr>
<td></td>
<td>Collaboration (e.g. Slaughterhouse) decreases potential for conflicts</td>
</tr>
<tr>
<td>Keep reindeer alive despite limited grazing land</td>
<td>Substitute feeding</td>
</tr>
<tr>
<td>Sustain livelihood despite decreasing number of reindeer</td>
<td>Marketing reindeer meat as premium product</td>
</tr>
<tr>
<td></td>
<td>Expanding to meat processing</td>
</tr>
<tr>
<td>Sustain wellbeing of reindeer and keep distress to a minimum</td>
<td>Use of technology (helicopters, drones)</td>
</tr>
<tr>
<td>Sustain resources for themselves and future generations</td>
<td>Try to minimize loss through accepting compensation from extractive industries</td>
</tr>
<tr>
<td>For externals to take the reindeer herders' rights and opinions seriously</td>
<td>N/A (reaction: absence at meetings)</td>
</tr>
<tr>
<td>Continuation of the industry because of its cultural significance</td>
<td>Changing company structure</td>
</tr>
</tbody>
</table>
Appendix 5: Example Coding Tree

First Order Comments

"It's hard. Profitability is generally declining in reindeer husbandry because it is difficult to make a profit in a lot of industries and big city society. It has been so expensive that our pasture land is now all the same. Everything is from reality."

"Within the forest companies, especially among them, it is mainly successful that has made land change is that the reindeer are not in the same way that they are more difficult to handle, so therefore we have the helicopter also. Companies that you get a different movement pattern in the reindeer."

"That's pretty much as the exploitation is Sweden's biggest threat."

"There is no reindeer farmer who has become financially independent from being a reindeer herder and there is no single reason that is doing very well and earning a lot of money, but those who are making a good living are somewhere else, so to speak."

"And how do you get more profitable reindeer husbandry, it's all about getting the most profit to increase. Because it's expensive to do reindeer husbandry, you get to have a somewhat. And if the grazing land which you need to buy food. You must have a car, the price of food is rising, interest rates are rising and everything must be paid for by the reindeer, so its expansion. For example, it is probably difficult to make ends meet. You have to have a lot. We have colleagues who work days. They work every other week with the reindeer and then they have also other or someone else who works the second week so they work hard. And then they work in a team to make ends meet, so it is not really sustainable."

Most people who are involved in reindeer husbandry now also have side activities because it's very difficult to get a 100% reindeer husbandry."

Second Order Themes

Resource competition with Extractive industries leading to decreased profitability

Slowed profit distribution leading to loss of profitability

Challenges of Reindeer husbandry due to lack of profitability

Reindeer herders acquiring jobs on the side because of low profitability of reindeer husbandry
Appendix 6: Pictures of Fieldwork

Car-testing tracks in Arvidsjaur

Inside Sweden's largest Reindeer Slaughterhouse

Stuffed Reindeer in the local Supermarket

In front of the Slaughterhouse

In front of the local government

Open air museum of traditional Sami village