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Other Land Uses' Effect on Nature Based Tourism

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Preface

Writing a master's thesis sounds easier than it actually is. The saying "pride comes before fall" describes well the trap I fell in. Where my dream and original plan was to write about satisfaction in hot spring tourism on Iceland, my insistence on my way of doing things resulted in a series of unfortunate events, leading to losing all the data with no way to recover nor save face.

Despite not producing a written thesis work, I learned what *not* to do. I find it important to thank all friends and family that helped me out with a multitude of things related to the collection of data on visitor satisfaction and hot springs, words do not properly express the gratitude I feel for the help you all provided.

This thesis uses data and categorization of firms from the survey in Stensland et al (2014).

I thank my supervisor Stian Stensland for his infinite patience and supporting attitude, and for really helping me back on my feet when I crawled to the cross and confessed my defeat. His advice has helped measure my time and resources in a sensible manner, and improve much of the structure and contents of this paper.

Kreg Lindberg at Oregon State University deserves great thanks as well for taking time to read over the text, providing crucial critique of my writing and insightful comments and suggested literature.

My boyfriend of 6 years, reignited my interest in outdoor recreation, ultimately inspiring me to apply for entrance to the master's in Nature Based Tourism. He has been supportive and pushing in equal measures. It is difficult to put his help into words, because it has been the small, subtle things, and merely having him in my corner of the living room.

While writing this thesis-work, the COVID-19 pandemic wreaked havoc on society and the tourism sector in Norway, and I hope the contents and finds of this paper may be of help to future business owners in NBT to understand how their goals and surroundings may affect their business, so they can take the appropriate steps forward.

I have no more to say, so I conclude this foreword with something my mom told me when I started High School: "Don't worry too much about the choices you have to make. Something will become of you in the end"

Abstract

Nature-based tourism (NBT) is a great industry in the Nordics, which is rich in rural areas and nature. The NBT-firms are often small with few employees, and with an economy with a small margin. They are thus vulnerable to sudden changes in revenue and expenses. These changes may originate in changes in demand, or in their supply of natural resources or its quality.

I discuss in short that nature-based tourism is a tourism-type that uses nature in an undeveloped and/or wild form. I also discuss what previous literature within the fields of nature-based tourism and natural resource management has to say on NBT's dependence on quality nature for revenue, and how other societal structures and –uses, such as power-development, mining, reindeer herding, forestry and cabin areas affects nature itself as well as tourism opportunities, and how the two create conflict situations. I show how a destination operates, and have developed a model to explain the conflict between NBT and other stakeholders, and explain what the conflict at its core is.

I describe how I treat data from the survey in Stensland, et al. (2014) to identify three NBT-firms types through cluster analysis of a parameter on different business segments' importance for revenue making, resulting in a new variable. I ran ANOVAs on this new variable with the aforementioned parameter and two parameters on the NBT-firms' operational goals and effect of other land uses on their operations. I validated the results through posthoc (Scheffé's method), KMO and Bartlett's test of Sphericity. The two last parameters underwent principal component analysis to find goal- and impact categories, and I validated those through Cronbach's alpha. The NBT-firms are one of many stakeholders in natural resource management, fighting various other stakeholders for the same areas or the same resources, but for different reasons. I ask in the thesis what types of NBT-firms there are, whether there is a relation between the type of NBT-firm and their operational goals and how different other land uses affect the type of NBT-firm.

There are three main types of NBT-firms: Guiding experts, Accommodation facilitators and Package experience. Guiding experts specialize in guided activities (e.g. expedition leaders), Accommodation facilitators specialize in accommodation and facilitating self-guided activities (e.g. cabin-rental near the coast for sports-fishermen), and Package experience specialize in being a complete destination or nearly one, with guided activities, accommodation, transportation, catering and information services (e.g. a conference center based on an old farm).

They all have somewhat different operational goals, and largely sustainability- and lifestyle-type goals, which pertains to upholding the quality of the resource they use, both for business and for the owners themselves. They are all negatively affected by heavily impacting land uses like windmills, hydropower development, powerlines and mining, because they disturb both the land areas these facilities are on, and the land areas around as well. Forestry and their roads, cabin areas and reindeer herding affects the NBT-firms are less, as they facilitate access, enriches the resource or are not as disturbing. The source of conflict lies in how the present and future quality of nature is, and what it will become.

Samandrag

Det naturbaserte reiselivet (NBR) er ein stor industri i Norden, som er rik på utkantstrøk og natur. Firmaa er gjerne små med få tilsette og med ein økonomi med lite slingringsmonn. Dei er difor sårbare for brå endringar i inntekt og utgifter. Desse endringane kan ha opphav i endra etterspørsel, eller i endra tilgang på naturressursar eller kvaliteten på den.

Eg drøftar kort at naturbasert reiseliv er ein reiselivstype som brukar natur in ein utvikla og/eller vill form. Eg drøftar også kva tidlegare litteratur i felte naturbasert reiseliv og naturforvaltning har å seie om NBRs avhengigheit av kvalitetsnatur for omsetting, og korleis andre sosiale strukturar og –bruk, slik som energiproduksjon, gruvedrift, reindrift, skogbruk og hytteområder påverkar naturen sjølv så vel som reiselivsmogleikar, og korleis desse to skapar konflikt-situasjonar. Eg visar korleis ein destinasjon drivast, og har utvikla ein modell for å greie ut om konfliktane mellom NBR og andre aktørar, og greie ut om kva konfliktens kjerne er.

Eg beskriv korleis eg handsama data frå spørjeundersøkinga i Stensland, et al. (2014) for å identifisere tre NBR-firma typar gjennom klyngeanalysar av ein parameter om ulike næringsaktivitetars viktigheit for omsetting, som resulterte i ein ny variabel. Eg køyrde ANOVAer på denne nye variabelen med den før nemnde parameteren og to parametarar om NBR-firmaas driftsmål og om verknaden av andre arealbruk på deira drift. Eg stadfesta resultatata gjennom posthoc (Scheffé's metode), KMO and Bartlett's sfæriskheitstest. Dei to sistnemnde parametrane gjennomgjekk komponentanalysar for å finne mål- og påverknadskategoriar, og eg stadfesta dei med Cronbach's alpha. NBR-firmaa er ein av mange aktørar i naturforvaltning, og kjempar mot ulike andre aktørar om dei same områda eller dei sama ressursane, men av ulike grunnar. Eg spør i oppgåva kva typar NBR-firma som finnast, om det er ein relasjon mellom type NBR-firma og deira driftsmål og korleis andre arealbruk påverkar dei ulike typar NBR-firma.

Det er tre hovudtypar NBR-firma: Guide ekspert-, Innkvarterings-tilretteleggjar- og Pakkeopplevingsfirma. Guide ekspertar spesialiserer seg i betala guida aktivitetar (t.d. ekspedisjonsleiingar), Innkvarterings-tilretteleggjarar spesialiserer seg i overnatting og sjølvguida aktivitetar (t.d. hytteutleige langs kysten for sportsfiske) og Pakkeopplevingsfirma spesialiserer seg i å vere ein komplett destinasjon eller nesten ein, med betala guida aktivitetar, overnatting, transport, matservering og informasjonsformidling (t.d. konferansesenter på ein gamal gard).

Dei har alle noko ulike driftsmål, og i hovudsak berekrafts- og livsstils-mål, som handlar om å oppretthalde kvaliteten på ressursen dei brukar, både for firma og for eigarane sjølve. Dei er alle negativt påverka av tungt inngripande arealbruk som vindmøller, vasskraftutvikling, kraftlinjer og gruvedrift, fordi desse forstyrrar både landareala dei er på, og landareala rundt også. NBR-firmaa er mindre påverka av skogdrift og deira vegar, hytteområde og reindrift, i og med dei lettare tilgang, gjer ressursen rikare, eller er ikkje like forstyrrande. Kjelda til konflikt er korleis dagens og framtidens naturkvalitet er, og kva den vil bli.

1 Introduction

The Nature based tourism (hereafter also NBT) industry is big in Northern Europe, where the population is sparser and more spread than further south. With relatively proportionately greater amount of nature and wilderness, NBT is an important extra income for the same geographic reason, where diversification may prove necessary to survive (Margaryan & Fredman, 2017; Stensland, et al., 2014). In Norway, it consists of mostly small firms with relatively small revenue and few employees (Stensland, et al., 2014). The firms may be very connected to the local area, both through the firm-owners living there and choosing to do so, and through their business and the nature that they base it on. They may thus not be too willing to move their business if new land uses affect their operation, such as the installation of windmills, or a hydropower station (2019).

While local does not equal small, they often go together (Think guesthouse versus chain hotel), and the difference in size may mean the difference in resources to fight off and prevent such changes in land uses (that is, the supply), or changes in demand through financial or political means, business contacts, or judicially through lawsuits, or advice. If they cannot fight off the change, the bigger firms may be better set to move their business elsewhere (non-NBT example in Hamilton, 2013). While smaller firms often have a much smaller economic resilience to sudden crises, they make up for it in human capital, that is, how invested the staff is in the field they work in (Biggs, 2011). When it comes to economic resilience, like most firms, they are vulnerable to changes in income and expenses. Factors that affect demand, such as COVID-19 where travelling is associated with risk of contagion and regulations complicating travel, may prove more challenging for them as they also may struggle to navigate the bureaucracy in applying for government financial support to cope with the situation. Factors that affect supply of high-quality NBT experience, such as the installation or presence of windmills (Lilley, Firestone, & Kempton, 2010) may change expenses in what price they can request for the service while increasing the costs of transporting their clients to more suitable areas for business.

The term NBT makes it clear that this industry has nature as its core resource of business, and needs great amounts of high quality- and accessible nature (Uyarra, Watkinson, & Côté, 2009; Robertson & Wunder, 2005), but also more abstract qualities like sensory ones such as silence, sights and smells (Fossgard & Stensland, 2020). In Norway, along with Sweden and Finland, there are laws that regulate the Right to Public Access. They state that one is free to roam on outlands so long as one does not do irreparable damage to it, and activities that have the potential to, need the landowner's consent (Outdoor Recreation Act [Friluftsløven], 1957). This means one can usually conduct low impact activities on other people's land without asking their permission, such as hiking, safaris or cross-country skiing.

However, many nature based activities demand infrastructure, and to establish those one needs as mentioned above, permission of the landowners, but also the proper authorization from the local government body. The local government body is responsible for planning how to use the municipality/county's land area, and process applications for buildings and/or restructuring (that is, allowing construction of power structures, transportation structures, mining, etc.) within the appropriate areas. When and if the new structure does not violate any laws concerning environmental protection, pollution, nor local regulations, or any other law it may come under jurisdiction of, authorization to build/restructure is granted (The Planning and Building Act [Plan- og bygningsloven], 2008). Various NBT-firms are often at the mercy of various landowners to run their business operations, and depend on them and neighboring landowners not to change their usage of land areas, whether the new use is voluntary or government-issued. Any such change in the land use will affect their business operation through the asset they depend upon.

NBT is thus one of many parties fighting for the same resources or areas, but for different reasons. NBT want the resources undeveloped and wild to maintain their attractiveness for tourism, other stakeholders wish to develop and extract the resources for their value as commodities on the market. While this issue at its core is a resource-supply issue with potential for conflict, it also includes changes in demand. If less land is available for high quality NBT experiences at a destination, then less people will want to go there. It is therefore of great importance to balance the use of the resources (Fredman & Tyrväinen, 2010).

In this thesis, I will segment and describe the main types of NBT-firms in Norway, based on the responses from a national survey in Stensland, et al. (2014), and try to determine whether there is any relation between the *NBT-firm type* and their *operational goals*, and whether *other land uses* affect their business.

I segment on NBT-firm type for several reasons. First, because the NBT-industry is comprised of a multitude firms with a multitude of different business operations, and what activities or services each firm offers, defines them. Second, I segment into NBT-firm types because changes in land use does not affect the activities in and of themselves, there is always somewhere else they can be conducted, but they do affect the business owners and managers to varying degrees depending on what business operations they have. To treat each NBT-firm separately would be too time-consuming and give so complex results it would be next to impossible to interpret them into something meaningful. Instead, it is more reasonable to find main types or categories, and treat those, despite them giving more general results that needs elaboration.

2.1 Literary review

The themes in NBT-literature are tricky to separate into categories, but I have tried my best, and instead referred between the articles where appropriate. I first go about defining NBT, and then on the various sub-themes.

2.1.1 Nature-based tourism and attractiveness

NBT, or *nature-based tourism*, is an umbrella term that covers a multitude of tourism categories, such as ecotourism (which in and of itself is a whole philosophy), biotourism, fishing- and hunting tourism, green tourism, nature tourism and so on (Fennell, 2015). Many use these terms to varying degrees interchangeably, but NBT is the widest, as it only sets the criteria that nature is the base of the business. An example may be the Ice-hotels happening in the northern hemisphere each winter. One could argue they are hospitality enterprises, but they fit as much into the NBT, given how they build the hotel from ice, and maybe make it a nature experience by serving local food outdoors, placing the hotel near a river in the wilderness, transporting the clients by dogsledding, or a combination of these. For the purpose of this thesis, I use the definition from Fredman, Wall Reinius & Lundberg (2009), that “*Nature-based tourism encompasses human activities when visiting nature-areas outside of their common surroundings*” [Own translation]. This definition is supported by Fennell (2015), who defines NBT as “*...a form of tourism that encompasses those forms of tourism (e.g. mass tourism, adventure tourism, low-impact tourism, ecotourism) which use natural resources in a wild or undeveloped form.*” From that follows that NBT-firms are “*commercial enterprises that, against payment offer activities or experiences in nature*” in Stensland, et al. (2014). While the Fredman, et al. report is 10 years old, the definition still holds true. While I will use the term nature-based tourism (or NBT), in this thesis, when discussing literature I will use the terms used in the respective papers and articles if they come up.

Seeing as NBT stands for nature-based tourism, it goes without saying that this industry needs nature, and a lot of it. There is a strong link between a NBT-destination’s attractiveness and the

willingness of visitors to go there or return. Visitors will not pay the same for degraded as for pristine nature (Uyarra, et al., 2005), and the *quality of nature* determines the experience satisfaction (Uyarra, Watkinson, & Côté, 2009). Human influence is not necessarily negative, as cultural landscapes are part of NBT, but it must not be too much of either one or the other, lest it become monotonous (Vinge & Flø, 2015). Visitors prefer forestscapes that are half-open, orderly with a green forest floor, and not too dense foliage nor tree trunks (Gundersen, Stange, Björck, Elsrud, & Frivold, 2011). With that said visitors disfavor elements that strongly pulls away from nature, as they push away both people, nature and the illusion of *untouched wilderness*. These may be windmills (Lilley, Firestone, & Kempton, 2010), powerlines (Sæþórsdóttir & Hall, 2018), hydropower stations (Burns & Haraldsdóttir, 2019), reservoirs (Sæþórsdóttir & Hall, 2019) and mining (Mukhopadhyay & Kadekoi, 2012). Nature is a physical place, yet its attractiveness is not only what is physically there. It is also intangible things like silence and sensory experiences like sights, smells, “nature-sounds”, and tactile sensations like temperatures and touch (Fossgard & Stensland, 2020; Margaryan, 2018; Boller, Hunziker, Conedra, Elsasser, & Krebs, 2010). While nature and its quality is important in NBT, the perception of wilderness and nature is more important (Sæþórsdóttir & Saarinen, 2016; Burns & Haraldsdóttir, 2019), and does not have to reflect reality (Derek, Woźniak, & Kulczyk, 2017). Visitors also prefer new construction to happen in areas that are already affected, preserving *untouched areas* (Tverijonaite, Sæþórsdóttir, Ólafsdóttir, & Hall, 2019; Sæþórsdóttir & Hall, 2018)

2.1.2 Other industries and energy infrastructure

A variety of land uses, such as energy-development infrastructure, extractive industries and reindeer herding, affects tourism, recreation and holiday homes. Altogether, the infrastructures are a negative element, but the attitude and preference varies with the type of tourist (Tangeland & Aas, 2010).

There is not much in literature on the relation between NBT and mining, nor tourism in general and mining. Given the current negative opinion of the public to mining, I am not sure there is much point to finding out either, as the opinion about each can be drawn separately. There is more in terms of *natural resource management*, however, which is where I choose to draw from literature. It is rather universally agreed that mining has a great effect on the environment, such as agriculture and waterways, through destabilization of the land and draining, sedimentation and water pollution, and in part society as well (Bastos, Cordeiro, Macedo, & de Azevedo, 2016; Hermanus, Walker, Watson, & Barker, 2015; Thia-Eng, et al., 2000; Wawryk, 2014; Stubbles, 1992). Sometimes the minerals are in forested areas, that hosts a *rich biodiversity* valuable to NBT (Mukhopadhyay & Kadekoi, 2012). While in some cases the two do not collide and may operate side-by-side in different parts of an area because the area was planned that way (Marcet, et al., 2007), other times the interests clash. Such an example stems from Costa Rica, where a Canadian mining firm’s attempt to start business in northern Costa Rica never came to be due to Costa Rican’s commitment to sustainable development and ecotourism (Hamilton, 2013). Modern mining does not have much to offer tourism, much less NBT, but the older mines have the potential to be turned into industrial heritage *destinations*, like in Spain where industrialization came later and was held back while other industrialized countries developed away into service based economies (del Pozo & Gonzáles, 2012).

As far as windmills go, they cause the visitors to seek nature elsewhere so long as they are visible to them (Lilley, Firestone, & Kempton, 2010). Their methodology was to simulate in pictures what it would look like, and they admit that the pictures may have overstated the impact, affecting the answers. This critique has relevance to all the other cited sources as well, namely

that despite surveys being our best tool for collecting information, there may still be a difference between stated intent and actual behavior.

The same type of behavior happens with powerlines, and with hydropower. Iceland is an interesting case where such infrastructure and tourism come very close on each other (Sæþórsdóttir & Saarinen, 2015). Hydropower is something both Norway and Iceland have in common, and knowledge developed one place has relevance for the other. In a case study on Blanda hydropower station, visitors had an *issue with powerlines*, but not the hydropower station itself (Sæþórsdóttir & Hall, 2018). The power station is shown below in Figure 1, the accompanying dam in Figure 2 and it should be mentioned that the station lies along and below one of the mountain roads (F35), *which most rental cars on Iceland are banned from driving on*. Most tourists would thus avoid this particular power station, yet encounter the transmission lines. Those who may access the road, may not notice the dam at all, as Figure 2 shows the terrain is not steep at all. The negative opinion of power stations emerge when it is being planned in an untouched area, but not once it is there (Sæþórsdóttir & Hall, 2018). It is probable that the positive attitude towards such power stations is attributable to its nature of green power rather than the actual placement in nature. There is an attitude among tourism operators that *power development* will be in *conflict* with NBT (Sæþórsdóttir & Hall, 2019). In the same article, they show there is no consensus on whether already existing power infrastructure in the Icelandic Highlands affects the NBT industry, if at all.



Figure 1 «Blanda powerstation overview», 2014, by iha
(<https://www.hydropower.org/sites/default/files/styles/aside/public/Blanda%20Powerstation%20overview.jpg?itok=C10aaoA5>). CC BY-NC-ND 2.0.



Figure 2 Damsystem seen southwards from Blanda power station. Placenames marked in picture. 2013. Page 12 in LV-2013-117 "Landscape analysis of the effect area of the Blanda power station" by Landsvirkjun. CC BY-NC-ND 2.0.

While unrelated to this thesis, it is interesting to find that energy tourism is an emerging field within tourism, that is, tourism with energy facilities as the destination (Frantál & Urbánková, 2017). I find it worth mentioning for its novelty and the fact that tourism to these destinations are starting to emerge, and that power development and tourism may not necessarily need to clash.

When it comes to forestry, the behavior appears to be different. I was not able to find much in the literature about conflict between the industry and tourism per se, however, I have been told by my supervisor there was great conflict about conservation versus logging in the 90s in the US and in Canada. It is probable this was partly about outdoor recreation and tourism aside from preservation for nature and biodiversity's sake. This has emerged in literature as discussions about conflict resolution, and it has emerged as discussions on how to integrate the social sciences and humanities into natural resource management (Miller, 1998; Endter-Wada, Blahna, Krannich, & Brunson, 1998; Gobster & Hull, 1999). One such use is landscape perception theories for recommendations on sustainable approaches preserving forest scenic qualities (Endter-Wada, Blahna, Krannich, & Brunson, 1998), and another showed that local residents to a forest relied on visual and esthetic indicators of forest health (Gobster & Hull, 1999). The literature also tried to show how forestry and ecotourism could coexist (Grieves, Adler, & King, 2014). Forestry and tourism do however *compete on resources*, where an increase in tourism often means a decrease in forestry, and vice versa (Lundmark, Fredman, & Sandell, 2010). It is often a challenge that preservation comes at the cost of work for loggers and other people in the industry (Spencer, 1999). Larsen & Valentine suggest there are few conflicts between NBT and forestry with good *natural resource management* (2007). The same applies to reindeer herding and natural resource management.

Reindeer herding is a big industry in the Northern half of Norway. The activity is closely knit with the Scandinavian Peninsula, Finland and Russia's indigenous people, the Sami, although there are non-Sami herders in the mountains in southern-half Norway as well. This industry is dependent on a great amount of undeveloped land areas that the NBT-industry also depends on.

Curiously, it appears somewhat common to have diversified into tourism. Involvement in the tourism industry is more common among Sami herders than among Sami farmers (Leu & Müller, 2016). The tourism involvement includes more women, and is more due to the available geographical resource than inclination to work in NBT (Leu & Müller, 2016). Norway, however differs from Sweden in that large herds are more common, making them less dependent on tourism. In Sweden at least, among those who do it, it is *a way of life*, but challenging due to herd size being calculated by the *areas capacity*, rendering herd growth impossible (Leu, Eriksson, & Müller, 2018). In other words, reindeer herders often participate in tourism as a survival strategy, while the reindeer herding itself strains on nature.

Another industry that is both part of tourism and straining on nature, is property development including huts, cabins and lodges. While visitors demand pristine nature, they also demand *comfort infrastructures*, which in turn stimulates *property development* like cabins, that take away from the wilderness experience (Boller, Hunziker, Conedra, Elsasser, & Krebs, 2010). With the increased use of these infrastructures, the *strain on nature* increases also, and such strain will only be accepted within certain limits (Mbaiwa, Bernard, & Orford, 2008).

2.1.3 NBT-firms and resource management

The NBT-industry and property owners are two of many parties in natural resource management. *Property rights* are central in resource management as it connects nature to society (Vail & Hultkrantz, 2000). Vail & Hultkrantz outline four broad challenges to reach sustainable nature tourism; 1) keeping demand-pressure within *carrying capacity*. That is to say keep and direct the strain on nature to a level and direction, that does not permanently damage it, like building up solid pathways. 2) Balancing tourism and other land uses, in other words make room for both tourism and, say, forestry. 3) Controlling *irreversible landscape changes*, here examples may be accommodating motorized vehicles away from areas with vulnerable nature, sanitary facilities, building up pathways, etc. Finally, 4) incentivizing landowners to invest in *conservation* and value-added tourism, partly through the previous examples, but also through economic cooperation with tourism stakeholders (e.g. they use your land, their customers pay a baked-in fee for the parking). These four challenges are still a core issue for NBT in relation to conservation and other land uses (2000).

On that note, NBT is quite diversified, and appears to often be a seasonal extra income (Margaryan & Fredman, 2017), that is, most NBT-firms do not rely solely on tourism. The most important amenities for NBT in Sweden are forests, rivers and streams/rivers/waterfalls. There are distinguishable differences between North and South on the land-level (regions if you will) where NBT-firms in the North rate higher on reported importance of *natural amenities* like mountains and forests, rivers and lakes, wetlands and *presence of wildlife* such as elk and fish. They also rely more heavily on the absence of people, and on *infrastructure* like hiking trails and cabins than do NBT-firms in the South, that rely less on location, and on tourism but have a higher reliance on water-based activities. This goes to show like mentioned above, that NBT-firms rely on the quality of nature to attract visitors.

Margaryan (2018) reports that there are 10 main NBT commercial setting attributes, of which the relevant for this thesis are *Wilderness properties*, *Exclusive extractive rights*, *Industries*, *Other land users*, and *Protected areas*. The backbone of all NBT-firms include attributes such as forests, lakes, rivers and waterfalls, presence of certain animals, infrastructure such as cabins, and hiking trails. The *right to public access* is both a blessing and a curse to NBT-firms, as this right, common to a few Nordic countries, means one do not pay entrance fees to use the land of others, but may make the land exposed to *over-exploitation*. That is to say, mountains, forests, lakes, rivers and waterfalls along with possibility to encounter local fauna, and infrastructures

like hiking paths and cabins, are the core attributes that provide income for NBT-firms in Sweden, and Norway as well. Like explained above, if these do not have sufficient quality, they have less value to NBT-firms in their commercial operations.

With time, the value could go three ways, either that the power infrastructure becomes part of the iconic landscape and thus contribute to value (like in Frantál & Urbánková, 2017), they become part of the landscape without contributing (Sæþórsdóttir & Hall, 2018), or they remain an eyesore, and negatively affect value, as suggested by Tangeland & Aas (2010).

2.2 Theory

2.2.1 Destination composition (open to Tourism systems as title)

Kamfjord's (2015) theory about the "holistic destination" (Figure 3) dictates that for a destination to be complete, it needs four *core industries, or services* if you will, that are offered to the *market (M)*, that is the customer, and four *preconditions* wherein the *experiences* are produced in the border area between the two. *Destination reputation and –brand* surrounds this whole.

These core industries are Hospitality, Catering, Transportation and Attractions, and the preconditions Nature/Culture, Common goods like health services and sewers, Infrastructure and Other Services that contribute to the destination, like groceries and hardware.

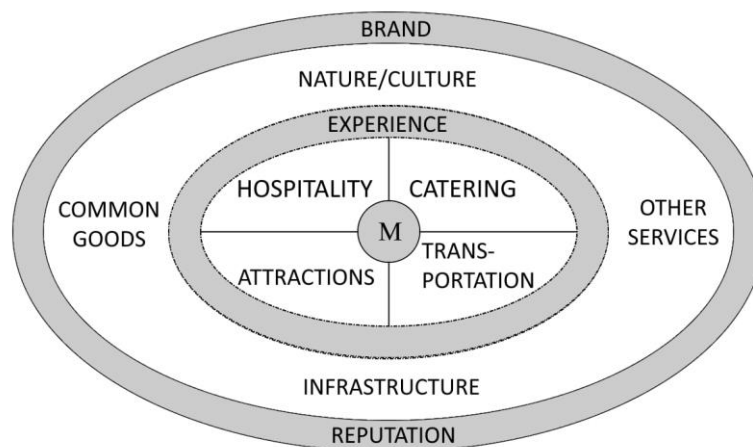


Figure 3 The holistic destination, from «Det helhetlige reiselivsproduktet – Bind 1, Reisemålet» (p.83), by G. Kamfjord, 2015, Oslo: Fagspesialisten AS. Own rendition

This theory is a useful framework, because it explains that the experience exists in the crossing of attractions and maybe transportation, and Nature/Culture and infrastructure. In the case of Norway (and the Nordic countries as such), it is especially nature that is the main attraction. In countries like Italy and France, however, rather often the culture is the main attraction (Think a cruise in Sognefjorden vs. a pizza-and-wine dining experience near Colosseum in Rome). This is supported by Fredman and Tyrväinen (2010), who also go on to explain that NBT is the fastest growing segment in the industry, and that often the drivers are entrepreneurs, who use it as a supplement to their business in forestry, agriculture, or other rural means of income.

Before moving on, it might be wise to clarify there are essentially three kinds of ownership relations between the NBT-firms and the land they operate on. There can be NBT-firms that do not own land, and access others' land to offer NBT experiences. There is the opposite, of a landowner not offering NBT-experiences, but allowing others to operate on their land (willfully or not) and finally there are landowners that also offer NBT-experiences. Of the three, only those that offer NBT-experiences are included in the analyzed data in this thesis.

According to Fredman & Tyrväinen, NBT is not merely tourism businesses and tourists visiting nature, it includes many *societal challenges*, like land-owners, management agencies, other resource uses and nature protection organizations, which often make decisions that are out of the businesses' control. In the Nordics, the State is a key landowner, and provides the most of the protected areas (2010). Fredman and Tyrväinen give the following model of the NBT system, shown in Figure 4 below.

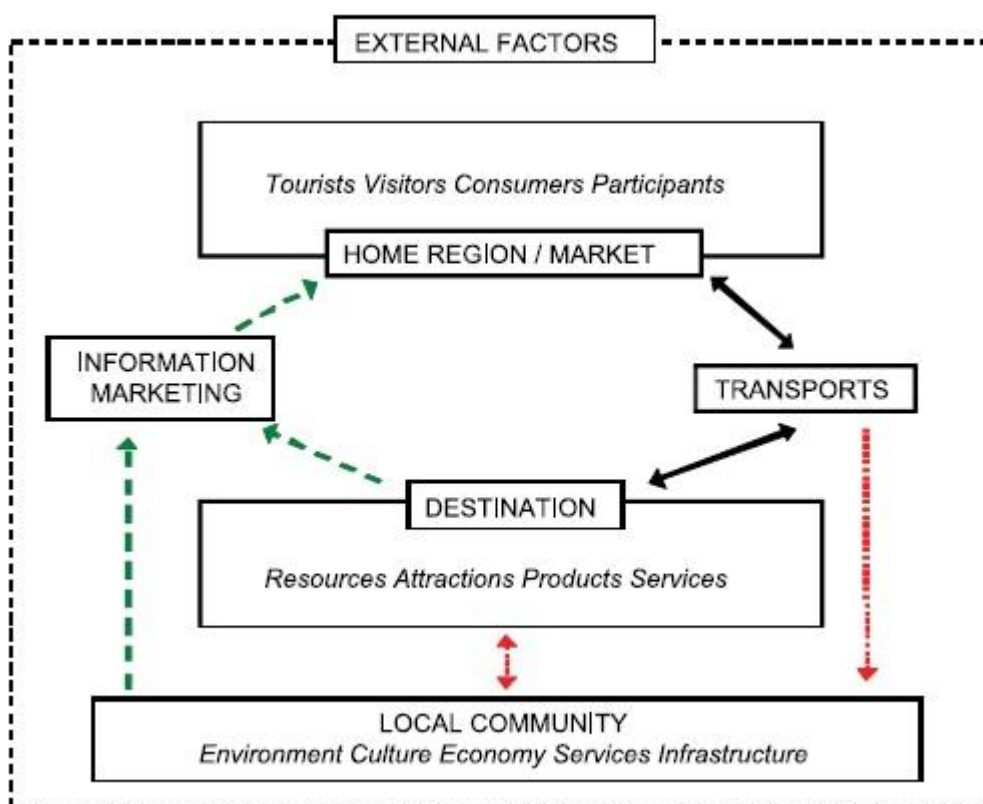


Figure 4 Principles of the nature-based tourism system, from Fredman and Tyrväinen (2010).

What this model shows, is that from the *demand* side, nature tourists are visitors in nature areas, and consumers of commodities. Their home region is the market, since tourism by definition is travel away from home. From the *supply* side, natural resources are fundamental, that also are attractive enough to be significant pull-factors. Access and attractiveness is supported by products and services offered by other tourism operators and land-owners in the local community, that enriches the destination in various ways. Transportation is knit to the local community, and is necessary to get the visitor to both the destination as well as the local community. All of these are affected by external factors that either encourages or prohibits tourism activity. These may for example be weather conditions and climate, but can also be regulations, competing land or resource use, economic recessions and safety (2010).

2.2.2 Conflict

What many of the sources mention superficially as a potential situation, or as a context for problems and solutions, but do not really discuss in depth, is conflict. *Conflicts* arise when two or more parties disagree on the objectives and one part appears to win at the expense of the others (in Redpath, et al. 2013 discussed in terms of conservation). Conflicts occur fundamentally between humans. They write that disagreements on objectives invariably will occur, and that the challenge is to avert them from becoming destructive, and reduce the damage when they do. The conflicts emerge either when some positions of views *threaten the others*, or when *objectives are imposed on others*, e.g. exclusion from protected areas (Redpath, et al., 2013). This could also happen in unison, like in Wawryk (2014), where an area fell through in regulation and legislation, allowing a mining firm to obtain a lease to explore in a sanctuary area, which both threatened it and imposed on the users. An example of legislation disempowering a party occurs in Whitaker (2000). In 1996, the Kentucky Tourism Development Act guaranteed those who started a project costing at least one million USD, attracted at least 25% of visitors from out-of-state within 4 years, operated at least 100 days a year, and was a destination attraction, to recover 25% of their expenses through various means. This effectively excluded those living in the economically deprived areas, and encouraged outsiders to move in.

Natural resource conflicts may superficially seem like a disagreement on the conservation of nature and natural landscape, and of society and cultural landscape, but they *often have a deeper cause*. Such causes could be stakeholders differing in perception of human-nature relations, stakeholders being excluded from negotiations or being disadvantaged in them like above in Whitaker (2000), or when history makes conservation threatening (Redpath, et al., 2013). An example that has elements of all of the above, are conflicts relating to land areas used by indigenous people. Often it is a question of whether an area should be kept natural for indigenous (and other) use or changed into a resource extraction point, and when indigenous people are not consulted in decision that affect traditional land, either through non-invitation or invitation late in process. It can be the mere process itself, as the land may have historical significance to indigenous people.

A single paradigm cannot easily explain such conflicts, so viewpoints from a variety of disciplines, such as natural- and social sciences and humanities, is necessary (Endter-Wada, Blahna, Krannich, & Brunson, 1998). It is worth keeping in mind, that the parties may actually agree on core goals, but disagree on how to get there, like suggested in the case study in Robertson & Wunder (2005) on Eduardo Avaroa Reserve. There the conflict is between lodge owners and the park management on how to balance tourism and preservation in expansive desert landscapes and around two lakes hosting three species of flamingo. They agree on the preservation part, but disagree on the extent. Once in conflict, parties often refuse to cooperate, and outcomes are often reduced by them to win or lose, that is, if you win, the others don't, and vice versa (Redpath, et al., 2013).

Game theory calls this a zero-sum situation, but keep in mind that non-zero-sum situations also exist, where both (or all) parties win, or lose, simultaneously. *Management helps lead away from zero-sum to non-zero-sum situations*. One way to do this is to separate underlying values that may be non-negotiable, from interests and needs that may be so. The Prisoner's dilemma, another game theory approach, explores self-interest and cooperation. In it, if both sides recognize the risks of conflict and are persuaded to see this as a shared problem, they *may reach cooperative solutions* that result in win-win situations (Redpath, et al., 2013). According to Redpath, et al., *ways to alter how parties play the conflicts* include trust-building, developing

alternatives and negotiate appropriate penalties and compensation schemes, as well as adaptive management (2013).

This has relevance to this thesis because what I look at is ultimately part of conflicts surrounding natural resource management. I look specifically at how various land uses affect different NBT-firms. For example, while cabin areas might be great for tourism and the landowners in general, it may reduce the quality of nature that NBT-firms rely on. It may greatly disrupt the habitats for wildlife, may cause pollution and might disrupt reindeer herds. A new cabin area might even cause new conflicts between the cabin-owners/renters and a nearby windmill, or maybe the landowner wants to open a quarry nearby, but cannot readily throw the cabin-owners out because of prior agreements. Understanding what affects one party will be useful for future negotiations involving the NBT-industry and any other natural resource management party.

2.2.3 Summary model

To sum up the literature review and theory, I have illustrated in Figure 5 below how *competing land uses affects NBT*.

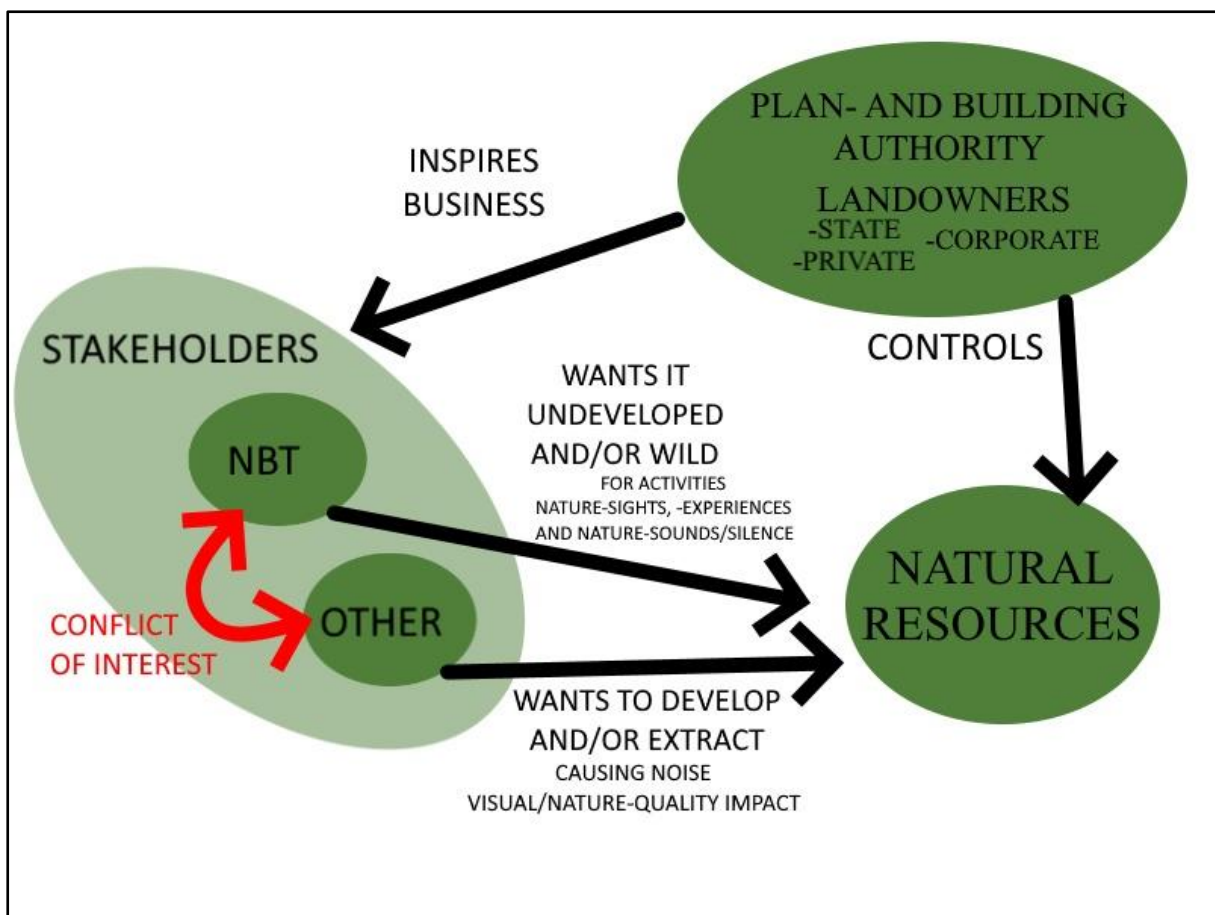


Figure 5 Conflict between stakeholders, and why

The model is adapted from Girard's (1990) theory of desire, and has three parts. The subject (Stakeholders), the object (Natural resources) and the mediator (Landowners and Plan- and Building Authorities). In the original model, the subject desires the object for himself or herself, motivated by the mediator controlling the object. In our case, two subjects (NBT and other) want the same thing for different reasons. The mediator is the Landowners, but ultimately the Plan- and Building Authorities.

The Plan- and Building Authorities and the Landowners control the Natural resources, and can grant, or deny, access to it. Both NBT and other stakeholders want the Natural resources. While NBT wants to commodify the wild or undeveloped resource for the qualities that follows such as sights, sounds/silence smells, and for the experiences of the resource, other stakeholders (which actually includes landowners) want to commodify these resources for the physical products, and in ways that affects the land they operate directly, and the land surrounding indirectly. There is, in other words, a conflict of interest that the Landowner, and ultimately the Plan- and Building Authority, make a decision on who is granted and who is denied access to the resources.

3 Thesis specification

What I am trying to find out in this thesis is whether there is a relationship between the type of NBT-firm and the impact of other land uses on these NBT-firms' operations, and what goals these NBT-firms have.

My hypothesis is thus:

H1: There is a relationship between NBT-firm type, its goals, and the effect of other land uses.

To answer this question, I need to establish what main types of NBT-firms there are, the different operations and impacts, and how these correlate. I have the following research questions:

RQ1: What are the main types of NBT-firms, and what characteristics do they have?

RQ2: What type of operational goals do the different NBT firm types have, and is there a difference in goals between firm types?

RQ3: How do varying alternative land uses affect the different NBT-firm types, and is there a difference in impact between firm types?

4 Method

I have used a quantitative method with data from the 2013 national survey of NBT firms in Norway (Stensland, et al., 2014). The information collected is for the most part in the form of numbers, and is thus suitable for a quantitative method (Hellevik, 2002). Based on these numbers, one conducts statistical analyses. The dataset in this study was extensive and contained many categories of questions and thus many variables. Because of this, I have only treated the relevant questions with adjoining variables. I conducted the analyses and calculations in the open-source statistical software GNU PSPP. Below is described the Survey's design and the analyses that have been conducted.

4.1 The survey

From the Stensland et al. (2014) survey, the codebook provided in Appendix 1, I have utilized variables about the economic importance of different business segments, about how different land uses affect NBT-firms and about the NBT-firms' operational goals, along with descriptives, listed in numerical order with codebook reference and response scales or response options below in Table 1.

Table 1 List of variables

Table 1. List of utilized variables, numbers corresponding to codebook (see Appendix.1)

Codebook reference	Question/Variables from survey	
Q1 'Q1'	What significance do the following operations have for the firm's total revenue? Guided activities in nature	
Q1a	Self-guided activities (equipment rental, boat, fishing/hunting rental, etc.)	
Q1b	Sale of outdoor recreation equipment	
Q1c	Production/organizing events/festivals in nature	
Q1d	Hospitality	Likert scale
Q1e	Transportation (tourism centered)	1=Not at all important to
Q1f	Catering/local food production	7= Very important
Q1g	Tour-operations	
Q1h	Information services (e.g. tourism offices, visitor centers)	
Q1i	Agriculture/forestry	
Q1j	Commercial fishing	
	N=663-680	
Q6	When did the firm start with Nature-based tourism? N=684	Nominal scale Annual 'pre-1945' to '2013'
Q7	How great would you estimate the share of total revenue coming from NBT to be? N=653	Nominal scale in 10-percentiles 0% to 100%
Q11	What significance do the following property types have for the firms' revenue of NBT-activities?	
Q11a	Own outland property	
Q11b	Other private property (single owner, shared land, state-shared land)	
Q11c	The "Finmarkseiendommen"	Likert scale
Q11d	State forests	1=Not at all important to
Q11e	The "Statsallmenning" in South-Norway	7=Very important
Q11f	Owned by none (e.g. the ocean)	
	N=628-662	
Q13	To what degree would you agree with the following statement: The right to public access is an important right, and should be maintained N=672	Likert scale 1=Greatly disagree to 7=Greatly agree

Table 1. (continued)

Codebook reference	Question/Variables from survey	
Q31	How do the following area- and nature uses affect your firm's operation in nature-based tourism?	
Q31a	Forestry roads	
Q31b	Forestry activity	
Q31c	Powerlines	
Q31d	Hydropower installations	Likert scale
Q31e	Mining/day-mining	1=Very negatively
Q31f	Windmills	4=No effect
Q31g	Cabin areas	7=Very positively
Q31h	Reindeer herding	
	N=491-571	
Q35	"County" (Derived from Municipality, Q34)	
	N=680	Nominal variable
		Listing all Counties + Svalbard pr. 2014
Q41	How high or low does your firm prioritize the following goals in their work with nature-based tourism?	
Q41a	Greatest income possible	
Q41b	Secure and stable income	
Q41c	Independence	
Q41d	Interesting job	
Q41e	Possibility to live at current location	Likert scale
Q41f	Possibility to work in nature	1=Very low priority
Q41g	Using local resources for business	to
Q41h	Social contact with customers	7= Very high priority
Q41i	Give customers a good natural experience	
Q41j	Convey attitudes on natural values to customers	
Q41k	Contribute to sustainable tourism development	
	N=665-679	
Q88	How many years have you been with the firm?	
	N=680	Numerical open answer
Q89	How big is your positions' percentage in the firm?	
	N=656	Nominal scale in 10-percentiles 0% -100%
Q90	How much of your total income do you estimate comes from the firm?	
	N=668	Nominal scale in 10-percentiles 0% -100%
Q92b	What year are you born? (cleaned to show age)	
	N=675	Numerical open answer

Table 1. (Continued)

Codebook reference	Question/Variables from survey	
Q94	What is highest attained schooling? N=680	Nominal scale Options 1= Elementary 2= Secondary 3= 1-3 years of University 4= +3 years of University
Composite variables (not in codebook)		
Q97	NBT-revenue from reported total income the years 2011 (Q55) / 2012 (Q69) multiplied with reported NBT-percentage of total Revenue (Q7) Given in thousands N=536	Nominal scale (Q7) In 10-percentiles 0% -100% Numerical open answer (Q55/Q69)
Q100_NY	NBT full-time equivalents from Total reported FTEs (Q57 for 2011, Q71 for 2012) multiplied with reported NBT-percentage of total FTEs (Q58-Q60 for 2011, Q72-Q74 for 2012) N=657	Numerical open answer (Q56/Q70) Numerical open answers (Q58-Q60/Q71-Q74)
Q112	NBT-firm clients from reported percentage of revenue within NBT connected to client groups in 2011 (Q67) / 2012 (Q81)?	
Q112c	Foreign clients N=570	Nominal scale In 10-percentiles 0% -100%

4.1.1 Survey design

Researchers and students at the Faculty of Environmental Sciences and Natural Resource Management at Norwegian University of Life Sciences produced and conducted the survey in the winter/spring of 2013 through invitations on e-mail to the Survey service Questback. Its design and layout is based on the recommendations of Dillman, Smyth and Christian (Dillman, Smyth, & Christian, 2009). The question about operational goals are from Lundberg & Fredman (2012) as well as Stensland (2010), and are based on economic, sustainability and lifestyle perspectives (Stensland, et al., 2014), while the rest are largely simple or constructed by the participants themselves. They identified the nature-based tourism firms through contact with and the help of tourism information offices, supplied and quality assured by searches of websites. They ended up with a valid group of 1785 NBT-firms, of which 684 responded after 9 contacts, one of which was an informatory e-mail sent ahead of the collection period, and a mix of text-messages and e-mails after that. A Non-response survey by phone, with a parallel online survey for those that could not answer by phone, was conducted based on the remaining 1101 firms. Of the 1101, 148 were contacted, of which 77 picked up the phone, of which 29 participated and another 4 by e-mail. 10 of the other who picked up, had closed business, and another 26 were defined to be outside the target group. Stensland et al. (2014) defined in the groundwork of their study that nature-based tourism firms are “*commercial enterprises that, against payment offer activities or experiences in nature*”. They restricted the definition to exclude firms that only offered activities such as transportation, hospitality, only

hunting/fishing licensing, farm-visits and facility-types (like alpine, golf, water parks), yet including those whose transportation or hospitality could be viewed as a nature-activity of itself. They excluded tour-operators, as the target were the producers of the “commodity”. When in doubt, they included respondents.

The survey consisted of 8 thematic units;

- i) Activities and firm-description
- ii) Use of land, national parks and other protected areas
- iii) Organization and geographic belonging
- iv) Status, goals and innovation
- v) Competence and success-factors
- vi) Environmental certification
- vii) Economy
- viii) About owner/Daily Manager

The survey used a bipolar ordinal scale where the values range 1-7. Because there are more than six categories in the variables, and because they reflect a range of opinions ranging from negative to positive, it makes sense to treat the data as continuous rather than ordinal (Tabachnick & Fidell, 2007, p. 13).

4.1.2 Width versus depth

(Hellevik, 2002) distinguishes between intensive and extensive research strategy where the goal is to make the data smaller and more manageable. In using an intensive strategy, one reduces the number of thematic units in the analysis, and an extreme case would be only using one question, but many variables, or one person and many open questions, like qualitative research. In using an extensive strategy, one does the opposite, using many thematic units, but few variables from each, or a population with a survey with response-scales, like quantitative research. The advantage of the extensive strategy is that more thematic units give possibility to observe the variation in the properties that are present in the different units. The goal would be to generalize on the population. I have chosen to do a few units, but with as many variables as possible.

4.2 Analyses

4.2.1 PCA, KMO and Bartlett's Sphericity

I primarily conducted this analysis to reduce the number of the ‘NBT-firm goal’ variables, and ‘other land-use impact’ variables. When doing the PCA, PSPP used correlation with Varimax rotation to generate the results. I also printed the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity.

4.2.1.1 Principal Component Analysis

It is often interesting to measure phenomena that are not directly measurable, that is something latent. In a dataset, one usually has many variables, and one may want to make complicated datasets into smaller sets of latent factors (Shlens, 2014), but also to make the big picture clearer. That is to say, you want to categorize your variables and data. One way is through *Principal component analysis*, or PCA, which is an extraction method in factor analysis, wherein one looks for *correlations* between variables, and any patterns. One recommends PCA when there is no a-priori (or previous) theory (Williams, Onsmann, & Brown, 2010). If there are any correlations between variables, factors will emerge, or *components* if you will, of the variables that are mutually correlated. At the same time, these components will emerge less correlated to other components. Its main characteristics is accurately report and evaluate many variables using fewer components, while still preserving the dimensions in the data.

These components are like categories, and I will use the term ‘categories’ when discussing the variables directly, and keep the term ‘component’ for discussing theory and method.

This brings us to the latent variables. They are either formative or reflective. One may think of formative like a synonym for cause, and reflective for effect, and the difference between the two forms of measure boils down to whether a measure influences the output of a latent variable (cause), or whether the output of a latent variable influences the measure (effect) (Bollen & Bauldry, 2011). It is argued that causal measures actually are three different kinds, ‘the three Cs’; Causal and Composite indicators, and Covariates. Covariates do not add to the variable itself, but may affect and explain them. Such things may be age, gender and location. Causal indicators decides and corresponds to the output of a latent variable’s defining characteristics without completely determining them. Composite indicators are a weighted sum of its composite (or formative) indicators (Bollen & Bauldry, 2011). Composite variables are in other words a linear function of weighted scores, from variables that do not need to relate to each other.

Factor loads are the output values in the PCA, ranging from 0-1, and they denote how close a variable are in relation to all the others to being their own component where 1 is ‘their own component’ and 0 is ‘not their own component’. An *eigenvalue* is the composition of factor loads. Beavers, et al. (2013) discusses the number of components with eigenvalues as the example. They write that this value, when over 1, tells whether a component explains more of the variance when combining a number of variables than the variables do individually. suggesting they belong together The PCA first distinguishes the component that explains the most variance, and then it moves on to the next that explains the most of the remaining, until all variance has been explained (Beavers, et al., 2013).

If a component loads four or more factor loadings greater than 0.6 it is stable regardless of sample size, components with ten or more factor loadings greater than 0.4 provided a sample size greater than 150, and components with a few low factor loadings should only be considered if the sample size is greater than 300 (Field, 2017).

4.2.1.2 Kaiser-Meyer-Olkin and Bartlett’s Sphericity

KMO illustrates how distinct and reliable the components in the analysis is, and is recommended in cases when the cases to variable ratio is less than 1:5 (Williams, Onsman, & Brown, 2010). It is a measure of the shared variance in the items (Beavers, et al., 2013). Its scale goes from 0 to 1, and one recommends a minimum of 0.50 as suitable for factor analysis (Williams, Onsman, & Brown, 2010).

Bartlett’s Test shows to what degree there is internal correlation within the components, and should be significant ($p < 0.05$) to be suitable for factor analysis (Beavers, et al., 2013; Williams, Onsman, & Brown, 2010). “The null hypothesis of Bartlett’s test states that the observed correlation matrix is equal to the identity matrix, suggesting that the observed matrix is not factorable”, and the alternative hypothesis is that they are not equal (Beavers, et al., 2013, p. 4).

4.2.2 Cronbach’s Alpha

When doing PCA, it is common to do a check of the reliability of the emerged components. I did *Cronbach’s Alpha* (from here also CA), and it refers to internal consistency. It is a common inappropriate practice to report only the sample value, which may hide sampling error (Bonett & Wright, 2015). *There is no universally recognized minimally acceptable value, and the interpretation depends on the type of application.* That is, what is an acceptable value will depend on the confidence interval of the variable (Bonett & Wright, 2015) [Own italic]. However, the bar must be set somewhere, and in social science, an acceptable value is agreed to be at least 0.6 (Mohamad, Sulaiman, Sern, & Salleh, 2015). The focus should be on population reliability, not sample reliability (Bonett & Wright, 2015).

Internal consistency demands at least three variables, thus I was unable to calculate a Cronbach's alpha value for *Reindeer herding* under 'other land uses', as well as the economic variables under the 'economic operational goals'-category. However, if a component only groups two variables, one may give the correlation instead (Peres-Neto, Jackson, & Somers, 2005).

Pearson's Correlation analysis operates under the null-hypothesis of no linear correlation ($\rho = 0$) between the two variables, and is not true if the correlation is positive ($\rho > 0$) or negative ($0 > \rho$) (Dutilleul, Stockwell, Frigon, & Legendre, 2000). In my case, it came to 0.56, which means there is a correlation between the two.

I will come back to these less-than-three categories in 4.3 Method discussion.

4.2.3 Cluster analysis

One runs cluster analyses to make a dataset more manageable and give a clearer view without reducing the complexity of it. In my case, I had to determine what NBT-firm types there are, and the parameter best suited for this, was the one on economic activities' significance for revenue, as the services offered defines the NBT-firm type.

K-means cluster is a non-hierarchical method, and it is known for being used to refine the hierarchical Ward's method. In Ward's method, one clusters the groups based on minimal variance. Ward's method is useful in treating noisy data, but may separate big clusters into smaller units (Ducasse S. G., 2018). I conducted a K-means cluster analysis, with 2-, 3-, and 4-cluster solutions analyzed to determine the best number of clustering for the parameter Q1 (their business segments). I made a theoretical evaluation of the three cluster-sets with two to four clusters, deciding on the three cluster cluster-set.

I then made a new variable based on the clustering result, assigning each case a number referring to a specific cluster.

4.2.4 ANOVA and Posthoc-Scheffé

With this new variable, I did a one-way ANOVA with Scheffé's method for a Posthoc to determine whether there was any significant difference between any two clusters in regards to their response on parameters Q41 and Q31. ANOVA (analysis of variance) tests the null-hypothesis that inherent variability accounts for observed difference, which is there is no significant difference. From this hypothesis, there may stem two different types of errors. Type 1 error is concluding a significant difference where there is not, and Type 2 error is concluding no significant difference where there is (Brown, 2005), a commonly accepted probability is less than 0.05. ANOVA is a procedure for testing hypotheses about group averages by partitioning variance (Brown, 2005). The null-hypothesis is that the averages are equal, and the alternative is that at least one group differs from the rest. From the calculated F-values, one calculates the probability, where a significant difference is at 0.05 or above, that is, if probability is less than 0.05, the null-hypothesis is accepted (Brown, 2005). People use F-test and F-values in ANOVAs to determine whether the averages of two populations significantly differ. The individual equivalent is the t-test and t-values. If the F-values are lower than a critical value, they are rejected, however they should be read in junction with the probability (Ducasse S. G., n.d.).

To see what groups are different, one may use Scheffé's method. "The Scheffé method computes all possible contrasts between averages, and the Type 1 errors is at most α for any possible combination" (Brown, 2005, p. 90) In comparison with Tukey's test, it is more sensitive for complex comparisons where Tukey is more sensitive for pair-wise comparisons. While Tukey's method often is preferred, Scheffé is, according to Brown, valid to test at $p = 0.10$ (2005).

4.3 Method discussion

4.3.1 The survey

Stensland et al. (2014) estimate a response rate of 38%, and after a non-answer survey, that the actual response rate may be around 50%. They did not find all the NBT-firms, however it is probably a good sample nonetheless, as they have covered a majority of the country and of the firms. Here (Hellevik, 2002) points out that datasets with a low response rate do not necessarily produce bad results, supported by Tourangeau and Plewes (2013).

Because the dataset contains a great amount of variables, I have restricted what variables are used. The amount of potentially relevant variables are probably greater than what is practical to bring into the thesis.

4.3.2 Principal Component Analysis and Cronbach's alpha

I believe the variables about effects of other land uses (Q31) are formative of the latent variable, as it is hard to imagine what latent factors could influence the responses about effect of other land uses. The operational goals (Q41) however, are reflective of the latent variable, as a latent variable could influence the responses in operational goals.

When doing the PCA for NBT-firm operational goals analyzing on eigenvalues, the statistics program suggested two categories, income and non-income goals, which had eigenvalues of 3.33 and 1.33 explaining 55% of the variance. I experimented with three and four components, where the third and fourth component had eigenvalues 0.95 and 0.64 respectively, which explained 64% and 71% of the variance. I landed on three categories (Income goals, Lifestyle goals and Sustainability goals), as it to my understanding gave the best results with a split of the non-economic variables into identifiable groupings, diversifying and giving more depth to the various possible goal categories, and was consistent with the critique on Kaisers method (Beavers, et al., 2013).

Adding one more component in the PCA on goals for the NBT-firm gave a fourth category I would call geographical reasons, grouping *Possibility to live at current location* and *Using local natural resources for business* together, suggesting they reflect two sides of appreciating the geographical location. I use the term "appreciate" in the literal sense of it, as in the respondents assigning a certain price or value to these attributes, intangible or not, regardless of whether this variable is voluntary or not (e.g. they do not have much choice in where to conduct their business, so they use the resources they have available).

As mentioned earlier in '4.2.2 Cronbach's Alpha', internal consistency demands at least three variables. In the case of 'NBT-firm operational goals', chose to go with three categories. In part because having four would leave two components unable to do a Cronbach's Alpha, In part because I believe geographic location to be a sub-theme nuance rather than part of an overarching theme. While I could have done correlation on two of the components in the 4-component result, I found it better to stick with three and be more consistent in the use of Cronbach's Alpha. Grubben (2013) also ended up with the same three components. With three components, only one of the them is unable to produce a Cronbach's alpha, containing only 2 variables (Economic goals), with *Greatest possible income* and *Secure and stable income*, where I did a Pearson's correlation analysis instead.

The two variables both score high on their respective factor loadings of 0.88 and 0.82, which are the two highest scores of all the variables, within the same component. I ran a Pearson correlation on them instead.

In other land-use impacts, I was unable to calculate a Cronbach's alpha value for *Reindeer herding*, as it grouped by itself. Reindeer herding is in and of itself a complex issue, with ties

to both tourism and environmental impact. However, I do not question its grouping for itself, as it scored 0.99, as close to an eigenvalue of 1 as one gets, and because at face value, the impact the variable describes does not change the landscape in the great ways of the heavy and low impact categories, its impact is more subtle. I will touch upon this again in section ‘6.4 Relations between operational goals and impact of other land uses’

When analyzing using Cronbach’s alpha, it is important to keep in mind that the values increase with the number of variables, so including many variables may cause a strong alpha, and not necessarily signify good reliability.

I first ran an analysis determined with Kaisers Normalization, ticking off for the scree plot. Kaisers Normalization states that only factors (components) with an eigenvalue greater than 1 should be retained, however, the method has been criticized, and many believe it tends to over-extract, yet it is apparently able to under-extract as well (Beavers, et al., 2013). If the next component down with less than eigenvalue 1.00 is close to 1.00 (e.g. 0.95), it may be worthwhile to have a look at including it to see how the components distribute with it included. While not necessary, the scree plot helps visualize this distribution. Then, depending on at what number of components the scree plot flattened its curve, that is, when adding another component counts less towards the correlation, I ran an analysis where I manually set the number of factors (components). In both cases, three components gave the most coherent components. I made a theoretical consideration for one of the variables (Cabin areas under impact of other land uses) that grouped under two components in the analysis. I placed the variable in the component with the higher factor load, because it correlates stronger with a higher factor load.

4.3.3 Cluster analysis

When analyzing Q1, two and four clusters gave unclear categories, while three clusters gave coherent and distinct groups that agreed with the clustering of NBT-firms in Fossgard & Stensland (2020), and in Apon (2013) after which I also named them.

5 Results

I will present the findings according to question, and later discuss them in the same order. Some of the questions have undergone several analyses, and I believe it will be easier to comprehend, give a better overview and be less repetitive if I present them this way.

5.1 Clustering of NBT-firms

Like Apon (2013), I did a cluster analysis to find how the firms cluster based on the importance of various business operations on total revenue. As PSPP only gives whole numbers in the K-means cluster, I consolidated the clustering into its own variable, and ran an ANOVA to check the more complete averages, since the clustering is based on variance.

What we see is that they seem to cluster into three main types of firms (Table 2): the ‘Guiding experts’, the ‘Accommodation facilitators’, and the ‘Package experience’.

The question asked was “What significance do the following business operations have for the company’s total revenue?”, and the scale ranged from 1=No importance to 7=Great importance.

‘Guiding expert’-types score greater than ‘5’ on *Guided activities*, and below ‘4’ on all other variables.

‘Accommodation facilitator’-types score greater than ‘5’ on *Self-guided activities* and *Accommodation*, and below ‘4’ on all other variables.

‘Package experience’-types score greater than ‘5’ on *Guided activities*, *Accommodation*, *Transportation*, *Catering*, *Packaging* and *Information services*, greater than ‘4’ on *Self-*

guided activities and *Organizing events in nature*, and below ‘4’ on all other variables. Defining values are set in bold in Table 2 below.

The post hoc analysis to check for correlation between clusters on each variable shows that there is a significant difference between ‘Guiding expert’- and ‘Package experience’-types on one side ranking higher than ‘Accommodation facilitator’-types that rank lower on the other on *Guided activities*.

Between ‘Accommodation facilitator’-types and ‘Package experience’-types on one hand ranking higher than ‘Guiding expert’-types that rank lower on the other on *Accommodation*, and between ‘Package experience’-types on one side ranking higher than ‘Guiding expert’- and ‘Accommodation facilitator’-types that rank lower on the other on *Transportation*, *Catering* and *Information services*.

Table 2 Clustering Characteristics

Table 2. Classification of NBT-firms based on business segments

Business segments ^a	Firm type clusters			Mean	F Value ^c	Posthoc Scheffé ^b
	Guiding experts (G)	Accommodation facilitators (A)	Package experience (P)			
Guided activities	5.23 (2.15)	2.10 (1.43)	5.23 (1.97)	4.09 (2.38)	210.2*	G,P>A
Self-guided activities	2.34 (1.69)	5.28 (1.98)	4.72 (2.16)	4.00 (2.33)	157.9*	A>P>G
Sale of outdoor equipment	1.54 (1.22)	1.50 (0.95)	2.68 (1.77)	1.74 (1.37)	29.72*	P>G,A
Organizing events in nature	3.35 (2.10)	1.85 (1.25)	4.83 (2.00)	3.17 (2.13)	129.2*	P>G>A
Accommodation	2.70 (1.91)	6.36 (1.34)	6.38 (1.12)	4.95 (2.34)	454.7*	P,A>G
Transportation	2.34 (1.84)	2.38 (1.70)	5.56 (1.77)	3.18 (2.26)	208.0*	P>A,G
Catering	3.12 (2.10)	2.75 (2.00)	6.06 (1.45)	3.73 (2.34)	166.3*	P>G,A
Packaging	2.65 (1.86)	2.25 (1.71)	5.56 (1.73)	3.18 (2.21)	181.1*	P>G>A
Information services	2.26 (1.62)	2.65 (1.84)	5.24 (2.01)	3.13 (2.14)	135.6*	P>A,G
Agriculture and forestry	1.98 (1.76)	2.89 (2.14)	3.87 (2.06)	2.66 (2.07)	31.9*	P>A>G
Commercial fishing	1.41 (1.10)	2.95 (2.18)	3.94 (2.28)	2.52 (2.10)	85.8*	P>A>G

N = 684 Numbers shown as mean (standard deviation)

^a “What significance do the following business operations have for the company’s total revenue?”

^b > denotes significant difference marked by p<0.05 between values, insignificant with a comma, in descending order

Response scale: 1 (Not at all important) to 7 (Very important)

. *p<0.01 Crit. F-value = 11.71

^c F-values for ANOVA above Crit. F-value rejects null-hypothesis that variance is not due to chance.

Defining values in cluster in bold

5.2 NBT-firm characteristics

To understand the NBT-firm types better, I ran some ANOVAs (Table 3) with the firm types as the factor and various descriptives as dependent variables, then checking with post hoc what NBT-firm types significantly differ, and what firm-types do not on the different variables.

‘Guiding expert’-types have a slightly above average NBT-revenue with 1,104k NOK a year, and that this sum makes up 60% of their total revenue. They employ about three full-time equivalents, and have been in the industry on average 12 years. They report that about a quarter of their clientele are foreign visitors.

‘Accommodation facilitator’-types have a noticeably below average NBT-revenue with 489k NOK a year, and that this revenue makes up 40% of their total revenue. They employ

about one full-time equivalent in NBT, but have been in the industry on average 15 years, and report that foreign visitors make up almost half of their clientele.

‘Package experience’-types share many similarities with ‘Guiding expert’-types with the exception of greater average NBT-revenue with 1,673k NOK a year, and longer time in NBT-industry with 16 years.

Looking closer at the owners or managers, ‘Guiding expert-’ and ‘Package experience’-types’ owners/managers report to receive around 50% of their income (‘Guiding experts’ less than, ‘Package experience’ more than) from the NBT-firm, whereas ‘Accommodation facilitator’-types’ owners/managers only report to receive 40% of their income from the NBT-firm. They cover about 70%, 61% and 76% respectively of the full-time equivalents, and report to have been in the firm for between 11 and 13 years. The average age of each NBT-firm type owner or manager is about 47, 53 and 50 respectively, and the highest attained education appears to lie around 1-3 years of University, with a slight majority reporting less. The standard deviation is rather low on this variable, suggesting it is a very common response.

In regards to what land areas each NBT-firm type typically uses, it appears ‘Guiding expert-’ and ‘Package experience’-types both place importance on Private property other than their own, and ‘Accommodation facilitator’-types generally rate all ownership types lower than ‘Guiding expert-’ and ‘Package experience’-types. All generally place low importance on any other ownership types, but universally the lowest on “Finnmarkseiendommen”. All NBT-firm types agree that the Right to Free Access is important to them, although the ‘Accommodation facilitator’-type is more mellow than the other two here as well.

Table 3 Stats about NBT-firms in Norway

Table 3. Stats about NBT-firms in Norway.

Corporate level	N	All	Guiding experts (G)	Accommodation facilitators (A)	Package experience (P)	F ^a	Posthoc ^b
Revenue NBT (k NOK)	536	1,050 (2,170)	1,104 (2,412)	498 (655)	1,673 (2,805)	12.6*	P>G>A
NBT revenue of total (%)	653	55.5 (33.0)	60.1 (32.6)	46.6 (32.5)	59.9 (32.0)	17.6*	G,P>A
NBT Full-time equivalents	657	2.29 (6.97)	3.03 (10.0)	1.10 (1.91)	2.78 (5.50)	5.25*	G,P>A
Years operating in NBT	684	14.5 (13.5)	12.1 (9.02)	15.6 (14.8)	16.6 (16.2)	7.04*	P,A>G
Foreign customers (%)	570	37.5 (34.2)	25.3 (29.8)	49.9 (35.7)	38.6 (31.8)	30.2*	A>P>G
Manager/Owner level							
Income from firm (%)	668	47.4 (37.5)	48.7 (39.0)	40.1 (34.7)	54.7 (37.5)	8.16*	P,G>A
Part of Full-time equivalents (%)	656	67.4 (34.9)	66.9 (35.8)	60.7 (35.5)	76.3 (31.1)	10.4*	P>G,A
Years in firm	680	11.6 (8.92)	10.3 (7.88)	13.2 (9.76)	11.3 (8.89)	6.54*	A,P>G
Age	675	49.9 (11.1)	46.7 (11.0)	53.3 (10.6)	50.1 (10.6)	23.1*	A>P>G
Education level ^c	680	2.86 (0.97)	3.10 (0.91)	2.69 (1.00)	2.76 (0.96)	13.1*	G>P,A
NBT land use^d							
Their own outlands	662	3.23 (2.50)	2.76 (2.44)	3.64 (2.47)	3.36 (2.53)	8.03*	A,P>G
Other private property	656	3.93 (2.42)	4.26 (2.43)	3.40 (2.29)	4.14 (2.47)	8.79*	G,P>A
“Finnmarkseiendommen”	634	1.48 (1.53)	1.39 (1.41)	1.44 (1.48)	1.68 (1.74)	1.86***	P,A,G
National forests	635	2.10 (2.01)	2.26 (2.14)	1.55 (1.52)	2.60 (2.22)	14.7*	P,G>A
“Statsallmenning” in South-Norway	628	1.90 (1.87)	2.13 (2.08)	1.45 (1.31)	2.19 (2.10)	10.5*	P,G>A
Property of none	645	3.36 (2.77)	3.03 (2.64)	3.65 (2.86)	3.46 (2.79)	3.13**	A,P>G
Importance of the Right of Public Access ^e	672	6.04 (1.60)	6.25 (1.41)	5.79 (1.73)	6.05 (1.64)	5.23*	G,P>A

Numbers shown as mean (standard deviation). Numbers rounded to nearest decimal point.
^ap<0.01 Crit. F-value =5.15-9.36 ^b**p<0.05 Crit. F-value 3.13 ^c***p=0.154 Crit. F-value 1.87
^aF-values for ANOVA on, in range or above Crit. F-value rejects null-hypothesis that variance is not due to chance.
^b cluster-by-cluster comparison using Scheffé's post hoc analysis. The symbol > denotes significant difference between clusters at 5% level.
^c 1 = Primary, 2 = Secondary (incl. vocational training, 2 years), 3 = University college/ University (3 years), 4 = University (+3 years) Pearson Chi-Square X²= 30.59 df = 6 p<0.01.
^d “How important are the following property types for the firms’ revenue of NBT-activities?” (1= No importance – 7 = great importance)
^e “To what degree would you agree to the following statement: The Right to Public Access is an important right that should be maintained.” (1 = Greatly disagree – 7 = Greatly agree)

5.2.1 Geographic distribution

I also had a look at how the NBT-firm types disperse throughout Norway (Table 4). I ran a crosstab on the variable County against the Clustering above, and summed the percentages according to which region each County belongs in. It shows that over-all, Northern Norway has the most NBT-firms with nearly 30% of the respondents, after comes East-Norway with nearly 27%, then West-Norway with 22%, accounting for nearly 80% of the NBT-market. The Chi-square results show a probability less than 5%, rejecting the null-hypothesis of column variable being independent from row variable. In terms of firm types, Guiding expert types make up about 37% of NBT-firms, ‘Accommodation facilitator’-types about 35% and ‘Package experience’-types about 27%. **The greatest NBT-firm type of each region are set in bold**, and shows that ‘Guiding expert’-type NBT-firms are the main type in the Southern half of Norway, whereas ‘Accommodation facilitator’-type NBT-firms are the main type in the Northern half (In Norway this division is usually set at the Dovre mountain area). I have added the crosstab in Appendix 2.

Table 4 Geographic distribution

Table 4.

Geographical distribution (%) ^a	Tot firm pr. Region (N)	Total ‘G’ pr. Region (N)	Total ‘A’ pr. Region (N)	Total ‘P’ pr. Region (N)	Posthoc Scheffé
Northern Norway	29.55% (201)	9.26% (63)	11.32% (77)	8.97% (61)	A=P,G
Mid-Norway (Trøndelag)	16.32% (111)	4.70% (32)	8.68% (59)	2.94% (20)	A<G,P
West-Norway	22.65% (154)	8.53% (58)	8.23% (56)	5.89% (40)	G,A,P
South-Norway	4.70% (32)	2.50% (17)	0.88% (6)	1.32% (9)	G,P,A
East-Norway	26,74% (182)	12.63% (86)	5.88% (40)	8.23% (56)	G,P,A
Total	99.96% (680)	37.62% (256)	34.99% (238)	27.35% (186)	

Numbers show percent of NBT-firm type in column in relation to region in row of totals.

Percentage majority for each region in bold.

^a “County”, based on 2014 division, Pearson Chi-Square $X^2 = 82.09$ $df = 38$ $p < 0.01$

5.3 NBT-firm operational goals

To distinguish the various operational goal categories as described in Stensland, et al. (2014) about the survey’s design, I ran a principal component analysis, shown below in Table 5. It shows three main categories of goals. 1) Sustainability goals, 2) Lifestyle goals, and 3) Income goals.

The Sustainability goals includes in descending order of importance *Contribute to sustainable tourism development, Convey attitudes about nature values to clients, Give clients a positive nature experience, Social contact with clients and Use local resources for business*. These all have in common that their goal is some form of business execution that is able to go on for a long time without depleting neither resources nor customer base.

The Lifestyle goals includes in descending order *Interesting work, Possibility to work in nature, Independence and Possibility to live at current location*. They all have in common that they have nothing to do with neither resources nor income, but reflect the things the various respondents place value in for themselves, like meaningful work and meaningful workplace.

The income goals include in descending order *Greatest possible income and Secure and stable income*. They both have in common that they at least provide enough for the respondents to survive, although the more the better.

Table 5 Principal Component Analysis of NBT-firm goals

Table 5. Principal Component Analysis of NBT-firm goals

Goals ^a	Goal categories			Cronbach Alpha if item deleted
	Sustainability	Lifestyle	Income	
Contribute to sustainable tourism development	0.80			0.77
Convey attitudes about nature values to clients	0.76			0.77
Give clients a positive nature experience	0.72			0.79
Social contact with clients	0.68			0.78
Use local natural resources for business	0.62			0.80
Interesting work		0.76		0.66
Possibility to work in nature		0.74		0.68
Independence		0.73		0.69
Possibility to live at current location		0.60		0.76
Greatest possible income			0.88	0.56 ¹
Secure and stable income			0.82	0.56 ¹
Variance in % (sum: 64.08)	26.60	22.18	15.30	
Cronbach's Alpha	0.82	0.75	0.72	

N = 684
^a "How high or low does your company prioritize the following goals in their work with NBT?"
Response scale: 1 (Very low priority) to 7 (very high priority).
¹Too few members in grouping for CA, shows correlation instead
KMO = 0.87
Bartlett's Test of Sphericity = 2634.79 p < 0.001

Sustainability goal have more importance than Lifestyle and Income goals to all three NBT-firm types, of which *Give clients a positive nature experience* scored above 6 for all three NBT-firm types and *Convey attitudes about nature values to clients* scored above 6 for two of them, and above 5 below 6 for the third (Table 6, scale medium '4'). Among Lifestyle goals, *Interesting work* appears to rate the highest with 2 out of three NBT-firm types scoring above 6 (the third above 5 below 6). Income goals come last, and there *Secure and stable income* is deemed more important *Greatest possible income*, both above scale medium. Concerning the individual NBT-firm types, 'Package experience'-types generally rate all parameters higher than the other two, and 'Guiding expert'-types place greater importance on Lifestyle goals than does 'Accommodation facilitator'-types. Aside from the common top *Give clients a positive nature experience*, the following three goals for each NBT-firm type are:

'Guiding expert'-types' top three goals are *Convey attitudes about nature values to clients*, *Interesting work* and *Possibility to work in nature*.

'Accommodation facilitator'-types' top three goals are *Use local natural resources for business*, *Contribute to sustainable tourism development* and *Possibility to live at current location*.

'Package experience'-types' top three goals are *Contribute to sustainable tourism development*, *Use local natural resources for business* and *Interesting work*.

None of the scores were below the scale medium '4'.

Table 6 ANOVA NBT-firm goals

Table 6. Difference in firm goals across firm type (ANOVA)

Goals and goal categories ^a	Guiding experts (G)	Accommodation facilitator (A)	Package experience (P)	Total	Posthoc Scheffe ^b
Income goals	4.61 (1.76)	4.99 (1.60)	5.41 (1.49)	4.96 (1.47)	P>A>G*
Secure and stable income	5.10 (1.76)	5.37 (1.53)	5.85 (1.37)	5.40 (1.61)	P,A>G
Greatest possible income	4.12 (1.76)	4.60 (1.66)	4.96 (1.60)	4.52 (1.72)	P>A,G
Lifestyle goals	5.68 (1.48)	5.47 (1.56)	5.95 (1.34)	5.69 (1.15)	P>G,A*
Possibility to live at current location	5.18 (1.98)	5.76 (1.67)	5.85 (1.58)	5.56 (1.80)	P,A>G
Independence	5.50 (1.43)	5.31 (1.56)	5.80 (1.29)	5.52 (1.45)	P>G,A
Possibility to work in nature	6.00 (1.27)	5.25 (1.58)	5.91 (1.47)	5.72 (1.47)	G,P>A
Interesting work	6.05 (1.25)	5.56 (1.41)	6.24 (1.02)	5.93 (1.28)	P,G>A
Sustainability goals	5.91 (1.33)	5.84 (1.33)	6.37 (1.19)	6.01 (0.99)	P>A,G*
Use local natural resources for business	5.53 (1.73)	5.88 (1.35)	6.34 (1.10)	5.87 (1.48)	P>A>G
Social contact with clients	5.57 (1.37)	5.72 (1.36)	6.21 (1.02)	5.80 (1.30)	P>A,G
Give clients a positive nature experience	6.54 (0.80)	6.19 (1.17)	6.71 (0.61)	6.47 (0.93)	P,G>A
Convey attitudes about nature values to clients	6.14 (1.17)	5.61 (1.43)	6.20 (1.18)	5.97 (1.29)	P,G>A
Contribute to sustainable tourism development	5.75 (1.57)	5.78 (1.36)	6.37 (0.95)	5.93 (1.38)	P>A,G

N = 666-679

^a “How high or low does your company prioritize the following goals in their work with NBT?”

Response scale: 1 (Very low priority) to 7 (very high priority).

^b > denotes significant difference of 5% between values, insignificant with a comma, in descending order

*Cases included in component only when at least 60% of factors have responses within scale 1-7.

5.4 Other land-use’s impact on NBT-firms

The dataset includes responses on how various other land area uses affect the firms, of which I have provided a PCA below in Table 7. The impacts split into three categories: Heavy infrastructural impact, Low infrastructural impact and No infrastructural impact.

‘Infrastructure’ is an intuitive way to describe the categories, but other labels could fit just as well. Heavy infrastructural impact includes *Power masts, Hydropower development, Mining and quarrying*, and *Windmills*. The common thing between these variables is that they all represent great changes in nature and landscape. Low infrastructural impact includes *Forestry roads, Forestry activity* and *Cabin areas*. These have in common that while they change the nature and landscape it is on a much smaller scale visually and in effect. No infrastructural impact includes only *Reindeer herding*. They do not add infrastructure, but they affect the nature nonetheless.

Table 7 Principal Component Analysis of Infrastructural impact

Table 7. Principal Component Analysis of Land use impact

Land use impact ^a	Land use categories			Cronbach Alpha if item deleted
	Heavy infrastructure	Low Infrastructure	No infrastructure	
Forestry roads		0.85		0.51
Forestry activity		0.71		0.46
Power masts	0.87			0.76
Hydropower development	0.75			0.81
Mining and quarrying	0.81			0.78
Windmills	0.82			0.82
Cabin areas	0.45	0.59		0.53
Reindeer herding			0.99	N/A ¹
Variance in % (sum: 70.22)	36.32	21.30	12.60	
Cronbach's Alpha	0.84	0.60	N/A ¹	

N = 684

^a "How does the following area and land utilization affect your company's operations in NBT?"

Response scale: 1 (Very negative) to 7 (very positive).

Factor loads <0.4 not included, if factor loading over 0.4 for more than one component, the variable is assigned to the highest loading component.

¹Too few members in grouping, neither CA nor correlation possible.

KMO = 0.81

Bartlett's Test of Sphericity = 1074.80 p>0.01

Like with the goals, I ran an ANOVA with the NBT-firm types as factor and the parameter variables as dependent variables. I made the impact categories into variables and calculated the means and standard deviations of each impact category for each NBT-firm type. Again, impact category shown in bold in Table 8 below.

The NBT-firm types' response to the impacts show that all three firm types grade impact of the low and no-impact categories neutrally (around '4'), but report a more negative impact of the heavy-impact categories.

As opposed with goals, it may be more appropriate to rank the lowest scores here. All three NBT-firm types ranked the same three variables as the greatest impact in their NBT-operations, Power masts, Hydropower development and Windmills. All agreed on Power masts as the greatest impact while only 'Package experience'-types ranked hydropower last. Because of the nature of the scale, where 4 equals indifference, the remaining impact types do not easily rank, and are thus difficult to discuss. Lower-than is negative impact, greater-than is positive. With that in mind, let us dive into how low-impacts affect the different NBT-firm types.

'Guiding expert'-types report a negative impact of both Cabin areas and Forestry activity, while they report Forestry roads as a positive impact.

'Accommodation facilitator'-types report indifference to forestry activity and positive impact of both Cabin areas and Forestry roads.

'Package experience'-types report, like 'Guiding expert-' and 'Accommodation facilitator'-types, that Forestry roads are a positive impact, while the response to cabin areas and forestry activity is more muted than 'Accommodation facilitator'-types, but not negative like for 'Guiding expert'-types.

Last, but not least comes reindeer herding. All results lie around '4', neutral, although 'Accommodation facilitator'-types tend towards the negative side of the scale, whereas 'Guiding expert-' and 'Package experience'-types tend towards the positive side.

Table 8 ANOVA Infrastructural impact

Table 8. Difference in land use impact (ANOVA)

Land use impact and - categories ^a	Guiding experts (G)	Accommodation Facilitator (A)	Package experience (P)	Total	Posthoc Scheffé ^b
Heavy infrastructure	3.16 (1.34)	3.57 (1.12)	3.39 (1.35)	3.37 (1.03)	A,P>G*
Power masts	2.94 (1.31)	3.49 (1.01)	3.11 (1.32)	3.17 (1.24)	A>P,G
Hydropower development	3.11 (1.50)	3.51 (1.23)	3.43 (1.42)	3.33 (1.40)	A,P>G
Mining and quarrying	3.36 (1.27)	3.67 (1.02)	3.68 (1.27)	3.55 (1.19)	P,A>G
Windmills	3.22 (1.27)	3.61 (1.20)	3.32 (1.39)	3.38 (1.29)	A,P>G
Low Infrastructure	4.16 (1.43)	4.35 (1.28)	4.45 (1.41)	4.30 (1.07)	PA>G*
Forestry roads	4.94 (1.58)	4.89 (1.39)	4.85 (1.43)	4.90 (1.48)	G,A,P
Forestry activity	3.84 (1.32)	4.02 (1.04)	4.15 (1.32)	3.98 (1.23)	P,A,G
Cabin areas	3.69 (1.38)	4.15 (1.40)	4.36 (1.48)	4.03 (1.44)	P,A>G
No infrastructure	4.33 (1.27)	3.93 (1.27)	4.43 (1.53)	4.22 (1.36)	P,G>A*
Reindeer herding	4.33 (1.27)	3.93 (1.27)	4.43 (1.53)	4.22 (1.36)	P,G>A

N = 491-571

^a "How does the following area and land utilization affect your company's operations in NBT?"

^b > denotes significant difference of 0.05% between values, insignificant with a comma, in descending order

Response scale: 1 (Very negative) to 7 (very positive).

*Cases included in component only when at least 60% of factors have responses within scale 1-7.

6 Discussion

I set out to answer the following research questions in order to conclude on my hypothesis.

RQ1: What are the main types of NBT-firms, and what characteristics do they have?

RQ2: What types of operational goals do the different NBT firm types have, and is there a difference in goals between firm types?

RQ3: What types of alternative land uses affect the different NBT-firm types, and is there a difference in affect between firm types?

Knowing these things may help both researchers and the tourism industry to understand the dynamics of NBT. Knowing the goals will help understand how the NBT-firm types prioritize in terms of resource usage, economic situation and employee/owner goals, and in turn what each NBT-type may want to give a little more attention. Understanding what affects the different NBT-firm types in terms of competing land use will be useful knowledge for many, researchers in tourism learn what affects different NBT-firm types, and entrepreneurs planning to start in the industry may become better prepared knowing what may be a challenge to overcome. Most of all, this knowledge will contribute to natural resource management processes, as knowing that a certain land use affects another in a certain way, may change the nature of the use or remove it altogether.

Before going further, I would like to reiterate that I focus on two aspects of the model in Fredman and Tyrväinen (2010), namely the attractions and resources aspects of the destination and the economy and Infrastructure aspects of the local community. In Kamfjord (2015), my focus is within the preconditions part, more specifically on nature/culture and

infrastructure and to a certain degree the core industries, but most the attractions bit. I have shown in my own model that the core idea in both Fredman and Tyrväinen (2010) and Kamfjord (2015), that the contact-zone between nature, infrastructure and industry produces the visitors' experience, is true, but also infrastructure and industry influences nature, ultimately deciding the profitability of NBT-industry.

6.1 Clustering of NBT-firms and their characteristics

While Stensland, et al. (2014) also looked into the guided activities themselves, I will focus less on this and more on the firm types, as my concern is whether other land uses affect NBT-firms one way or the other, not what the actual activities are, or how much they make from each. The firms have probably changed somewhat since 2013, but the balance, and the main types, should statistically speaking be the same today as then.

As for the NBT-firm characteristics, '**Guiding expert**'-types appear to be as expected, with the majority of their revenue stemming from NBT. Their clientele is majority domestic, but the survey data does not say what parts of Norway they come from, nor in what ratios. Concerning Kamfjord (2015), model shown in Figure 3 on page 9 in this thesis, I predict they do not aim to work *as* a destination, but rather work *with* or *within* one as part of the attractions segment, producing the experience towards nature, maybe relying a little on infrastructures like forestry roads to get the visitors into nature.

'**Accommodation facilitator**'-types have a below average NBT-revenue, that makes up 40% of the NBT-revenue. An explanation could be that the respondents have two sides to their firm: the NBT-means of income and whatever other means of income. They draw a mental line between the two and that when answering the survey, their mind focus on the NBT-side, while their main income actually lies elsewhere. Stensland, et al. (2014) reported in a note that firms that were in a grey-zone, such as farming tourism facilities and horse riding clubs, were included only if they offered NBT-activities and rental of equipment against payment (p. 12). They admit that a sampling error may be that some respondents in the agricultural industry offer small-scale accommodation and hunting/fishing, but do not consider themselves in the tourism industry (p. 16). The firm type also reports on average that about 50% of their clientele is foreign visitors, more than both the 'Guiding expert'- and 'Package experience'-types. Why they have more foreign clients than the other two firm types, may stem from advertising and listings online or international marketing, considering they are accommodation facilities, which makes sense, given that foreign visitors do not necessarily have local contacts or family to host them and will need this service one way or another. The firm type fits into Kamfjord's destination model as part of the core industries segment, the accommodation bit, also producing their experience towards nature, however, they rely more on infrastructure being in the accommodation segment.

The '**Package experience**'-types appear to aim to be a complete destination, much like Kamfjord's model (2015), reporting importance of all the core industries to their NBT-income, also producing their experience in towards nature, and like 'Guiding expert'-types, infrastructure like forestry roads.

The average age of the NBT-firm types' manager/owner respondents lie between 47-53 years, and the average education around 1-3 years of University. While the NBT-industry is one that does not require a university degree to go into business, it appears common to have some higher education. As Stensland, et al. reports, 63% of respondents did have 1-3 years of higher education (2014). It appears to be an easy entrance, easy exit industry, judging from the high turnover-rate shown in the follow-up survey in Stensland, et al. (2018), where 270 NBT-firms of the pool of 2032 NBT-firms from both the 2013 and 2017 surveys, had closed down their business (193 among 2013 originals, 77 among 2017 originals). The 2014 survey

does not ask what category this education is, but it may be fair to assume some have academic backgrounds of agricultural, forestry, economic or hospitality-management kind.

That Northern, Eastern and Western Norway has the majority of NBT-firms is sound and in agreement with Margaryan & Fredman (2017), who report a higher frequency of NBT-firms in rural areas. Part of the reason Eastern-Norway gets a higher share of NBT-firms than West-Norway is because the division encompasses a majority of the southern half of Norway. If the two Inland counties had been a category in the regional division of Norway, East-Norway would have lost nearly 50% of their coverage to this new category (See Appendix 2). As for why the Northern half has the majority of NBT-firms, it might be the demographic spread of Norway. Northern- and Mid-Norway make up about 18% of the population (Statistics Norway), but holds nearly 46% of the NBT-firms. Margaryan & Fredman (2017) suggest the NBT-firms in the north rely more on tourism and are more place bound. The demand for NBT is currently higher levels of wilderness together with higher levels of comfort (Margaryan & Fredman, 2017), which is to say the more sparsely populated regions holds more nature, and thus more capacity for NBT-firms to operate. Fossgard & Stensland (2020) show that the 'Accommodation facilitator'-type has a high percentage of consumptive activities, such as fishing, hunting and berry picking. This combined with free attractions and great scenery might explain the higher frequency of 'Accommodation facilitator'-types of NBT-firms in the Northern half. The southern half of Norway, despite a mountainous midst, takes less time to traverse, allowing one to pick a base somewhere, and travel to the attractions and participate in guided activities, prompting more of the 'Guiding expert'-types.

6.2 NBT-firm operational goals

The top scoring Category among all three NBT-firm types was the Sustainability goals. *Give clients a positive nature experience* scored universally the highest. For an economic viewpoint, this makes sense, given how tourist satisfaction reflects a willingness to pay more for a service (Uyarra, et al., 2005; Uyarra, Watkinson, & Côté, 2009; Margaryan, 2018), and underscores that the NBT-firms are aware of this fact. Another goal, *Convey attitudes to clients about nature*, is linked to the above goal, but also to a certain degree the lifestyle goals that I cover further down.

In order to succeed in these two goals, the nature need to have a certain beauty, or esthetic, as mentioned by Uyarra, et al. (2005; 2009) where willingness to pay for an experience depended on the quality of the attraction. The importance of impression of nature shown in Derek, Woźniak, & Kulczyk (2017) and Mbaiwa, Bernard & Orford (2008) is also needed, as actually remote areas may not be available, but non-remote areas may share many of its qualities (Tverijonaite, Sæþórsdóttir, Ólafsdóttir, & Hall, 2019). Yet in Boller, et al. (2010), where the sense of remoteness was an important quality, some human impacts were appreciated, like hiking trails, huts and traditional landscape elements, and powerstations, once there, are often accepted as part of the landscape (Burns & Haraldsdóttir, 2019). Vinge & Flø show some of these traditional landscape elements (like mountain farms) are important for the variety of view (2015), but not too much one way or another. Quietness is also shown to be important, and would naturally contribute to a positive nature experience (Burns & Haraldsdóttir, 2019; Fossgard & Stensland, 2020)

A third goal, *Use local resources for business*, is one that conflict with other industries and land uses. Windmills, mining, hydropower and powerlines, and forestry and reindeer herding, all use local land for business along with outdoor recreation and tourism, that also affects local inhabitants (Stubbles, 1992), but where NBT wants the resources wild or undeveloped, only forestry and reindeer herding has any sort of undeveloped quality of the competing stakeholders.

The second scoring category, Lifestyle goals, is also universal. The average top two variables were *Interesting work* and *Possibility to work in nature*. The respondents considered Lifestyle an important success factor in Stensland, et al (2014), and it probably reflects the combination of business and an interest in certain outdoor activities, as well as a preference for rural living environments. Entrepreneurship is a field with great turn-over, and the innovators in NBT are often driven by quality of life choices than by profit maximization (Ateljevic & Doorne, 2000). The Lifestyle goals category supersedes the Economic goals category. While the business is not primarily meant to cause profit or capital, it should make enough to enable their lifestyle (Lundberg & Fredman, 2012), and is often a reflection of their sociopolitical ideology (Ateljevic & Doorne, 2000; Biggs, 2011). This could explain why *Interesting work* and *Possibility to work in nature* rate so high, and also why the Economic goals both score the lowest. This sociopolitical ideology manifests in the participants rejecting a corporatized organizational environment. They see it as unequal, competitive, and promoting top-down managing (Ateljevic & Doorne, 2000), effectively disregarding local understanding and knowledge about resources. Because of that, a smaller, approach using local knowledge and resources suits them better, supporting the goal of *Possibility to live at current location*.

6.3 Other land-use's impact on NBT-firms

That the NBT-firm types generally rate the Heavy infrastructural impacts (*Power lines, Windmills, Hydropower development and Mining*) more negatively than the low and no-impacts agrees with Tangeland & Aas (2010). It supports the finds of Lilley, Firestone & Kempton (2010), where windmills would reduce the willingness of visitors to return to a beach, and not least, Sæþórsdóttir & Hall (2019) where tourism operators were negative to powerlines, reservoirs and hydropower stations in the Icelandic Highlands, the area with the most untouched nature. Personally, I think given Iceland's unique and isolated geographical placement on the apart-drifting American and European tectonic plates, which both forces and allows geothermal power production; the installations rather lend themselves to the experience of Iceland. On the other hand, I can also understand the disappointment of those who did not expect them, as it takes away from the "untouched wilderness".

All three firm types ranked the same three variables as the greatest three impacts in their NBT-operations, which all are the impacts most reported in Sæþórsdóttir & Hall (2019). The category reflects the heaviest influences on nature, and the greatest conflict of interest (Redpath, et al., 2013).

As to why Mining is negative to all three NBT-firm types, it may be due to its impact on the environment. Judging from the literature, mining pollutes the rivers, and destabilizes the soil and compromises the safety around it (Hermanus, Walker, Watson, & Barker, 2015), however I can only hypothesize at current, as the survey does not go deeper in what exactly brings down the score. 'Accommodation facilitator'- and 'Package experience'-type's relatively high mean score on mining might stem from them simply not operating in the same area as the mining firms, like suggested in (Marcet, et al., 2007), where the discussed area is planned in such a way that the industries do not compete about the same areas. Their stationary style of business model would suggest they pick locations not prone to such resource disputes in the first place. A notable exception is Svalbard up until 2014, where mining was the biggest part of the Gross Product, with tourism and hospitality being nearly equal to it in 2015 and hospitality taking over in 2016 (Statistics Norway, 2019). In addition, there the two operate in different areas, so there is no conflict of interest.

Returning to the firm types, 'Guiding expert'-types, as opposed to 'Accommodation facilitation'- and 'Package experience'-types, rely to a much greater degree on high quality

nature for their business. Common forms of mining create open wounds in the landscape that take away the illusion of pristine nature and wilderness needed to make revenue (Uyarra, Watkinson, & Côté, 2009).

‘Guiding expert’-types report a negative impact of both *Cabin areas* and *Forestry activity*, while they report *Forestry roads* as a positive impact. This is in line with their need of access to nature, while they also need high quality *nature*. That both *Cabin areas* and *Forestry roads* are mildly positive impacts to ‘Accommodation facilitator’-types is unsurprising, as their business model is accommodation, and self-guided activities. They would need both the accommodation and the infrastructure to get there (Boller, Hunziker, Conedra, Elsasser, & Krebs, 2010). The indifference to *Forestry activity* is harder to explain. ‘Package experience’-type’s more muted, but positive response to cabin areas and forestry activity, may stem from their need of high-quality nature, but not dependence to the same degree as the ‘Guiding expert’-types, as they can, in theory be the destination itself, having all the core industries from Kamfjord’s model covered in their business plan.

Forestry activity has the last 28 years been connected with growing awareness of climate change and loss of biodiversity. As such, a need for the forest owners to make profit of their wooden resources while preserving some of it, has developed into a variety of natural resource management tools and ideas (Endter-Wada, Blahna, Krannich, & Brunson, 1998; Miller, 1998; Gobster & Hull, 1999). All these aim to balance human extraction of resources and use, and preservation. This may be the cause of the neutrality to forestry activity among all three NBT-firm types, as the extractive use of forests is reaching a sustainable level that permits use of ‘uncultivated areas’ while

As far as Reindeer herding goes, all three are relatively neutral, but ‘Accommodation facilitator’-types tend towards negative and ‘Guiding expert-’ and ‘Package experience’-types towards positive. The neutrality could stem from fewer encounters with reindeer herds as herders married to non-herders may sell their herds due to conflicting time-constraints (2016) Why only ‘Accommodation facilitator’-types tend to report negative impact of reindeer herding may have many causes. It could stem from the animals disturbing the peace around the lodging, or from the industry needing great land areas for grazing that ‘Accommodation facilitator’-types also desire to develop cabin areas, or other reasons. It may in part also come from the higher frequency of ‘Accommodation facilitator’-type NBT-firms in areas that sustain traditions of reindeer herding, like Northern Norway, and to a lesser degree Trøndelag (Mid-Norway), and Møre og Romsdal and Hedmark, causing a heavier report than if the spread had been more even. Likewise, why ‘Guiding expert-’ and ‘Package experience’-types tend find them a positive impact, may stem from them taking the clients around and in a lucky set of coincidences happen upon the herds, adding a positive note to the clients’ experience, as that was a benefit the clients get without having paid extra for it.

7 Conclusion

In this thesis, I have shown in the results that the greatest operational goals for the NBT-firms are sustainability goals followed by lifestyle goals that aims to make the use of nature as non-straining as possible to uphold the quality for business, and to enable a lifestyle choice. The greatest impact on NBT-firms are negative, and stems from heavy impact infrastructures like powerlines, windmills and hydropower development, and extractive industry like mining, that have a great physical and visual impact on the lands they are established on and the lands around. Low- and no-impact infrastructures like forestry roads, cabin areas and reindeer herding have neither a strong positive nor a strong negative effect on NBT-firms.

The implications for natural resource management and tourism development is that the results show the energy and extractive industries have a significant negative effect, reducing the inherent value and quality of the resources for the stakeholders in NBT-firms, that rely on and utilize them for business, as well as for leading their respective lives. These industries do not only affect the lands they are on, but the surrounding areas as well. While this is known in an ecological sense, it is emerging in academia the impact is in an esthetic sense as well, shown in the literature review above.

These results have great significance for future policies on tourism. The two most recent white papers to the Norwegian Government that directly addresses tourism as a part of them (Wholesome natural resource management at sea, and New goals for cultural environment policy), discuss the topics on the grounds of the UN sustainability goals. Both acknowledge the tourism industry's need for thriving ecosystems and experience of a clean nature, and acknowledge that humans affect both nature and landscape. (Ministry of Climate and Environment, 2020a; 2020b). Two older white papers that directly addresses nature-based tourism, both discuss the NBT-industry and the Government's goals for this, but do not adequately address the impact of industry and energy infrastructure. The more recent one of the two older white papers mentions the NBT-industry's dependence on politics to ensure good resource management, but does not specify what industries and sectors actually affect, and in what way, although it is implied. The results in this thesis gives clear indication of what industries affect NBT-firms through their effect on nature and landscape. While I think this is a consideration in natural resource management processes, I feel this is greatly undervalued.

As for further work, I find it interesting that NBT-firms report a negative impact from power structures and mining, both categories of human impacts that change both nature and landscape, and also that these NBT-firms largely operate with sustainability and lifestyle goals. My gut feeling is that there is a correlation going on here that I would like to explore further. I would like to see how these land uses affect NBT-firms more accurately, and whether there are ways to reduce the conflict potential through alternatives, cooperation or camouflaging.

I am also curious about the low-impact categories, like forestry, cabins and reindeer herding, and I believe they would be a natural part of further research on this. While forestry roads appear to be a positive influence, forestry activity does not show any clear indication in a positive nor a negative direction. Forests with certain qualities have significance as a resource for NBT-firms, so one could assume that while too much forestry activity it is negative, some may be beneficial to maintain a certain quality.

The same goes for Reindeer herding, it was neither especially positive nor especially negative in its impact. This could stem from great variation among the respondents, and the matter is more complex than I was able to cover in this thesis. There has been some studies on the Sami and their relation between their role as reindeer herders and tourism providers in Sweden, but the circumstances differ between Norway, Finland and Sweden. The matter has cultural heritage ties that are important, both for the indigenous people itself, but also for the growing tourism industry in a time where reindeer herding is increasingly costly to operate, and happens in rural areas where diversification is an important survival tool to begin with.

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8.2 Tables and figures

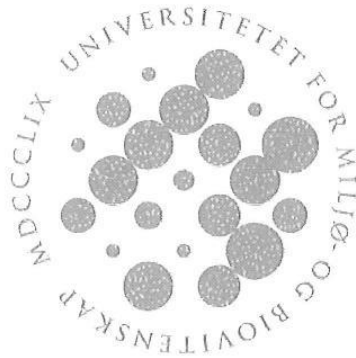
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9 Appendix

Appendix 1 Stensland, et al. (2014) Survey

Appendix 2 Crosstabs w/Alternative Region and Reindeer herding Counties



Landsdekkende undersøkelse: Søker kunnskap om naturbasert reiseliv

UNIVERSITETET FOR MILJØ- OG BIOVITENSKAP
INSTITUTT FOR NATURFORVALTNING
WWW.UMB.NO/INA

Mer om forskningsprosjektet, og denne undersøkelsen:
<http://www.umb.no/mr/arkiv/ny-kunnskap-om-naturbasert-reiseliv>

1) Hva slag betydning har følgende næringsaktiviteter for virksomhetens totalomsättning?
Gi et anslag.

	Jegen betydning = 1	2	3	4	5	6	Svært viktig = 7	Vet ikke
Betale guidede aktiviteter i naturen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selv-guidede aktiviteter (utleie av utstyr, båt, fiske/jaktutleie, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Salg av fritidsutstyr	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Produksjon/organisering av arrangementer/festivaler i natur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overnatting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transport (reiseiseførmål)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Servering/lokalmatproduksjon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turoperatørvirksomhet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Informasjonsformidling (f.eks. turfaskontor, besøkssenter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jord-/sløggbruk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiskeri/næringsfiske	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Oligabvinsk

Annem viktig næringsvirksomhet

Q2

Q3

2) Speslett om jakt og fiske. Tilbyr din virksomhet noen av følgende produkter tilknyttet jakt- eller fiskeopplevelser?

Sett kryss for alle de kategoriene dere tilbyr. Hopp over spørsmålet om dere ikke tilbyr noen av produktene under.

	1	2	3	4
Fiske etter laks, sjøørret, sjøørre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innlandsfiske	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sjønske	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Småviltjakt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storviltjakt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jakt i sjenen (fugl, sei)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3) Hvilke aktiviteter innen naturbasert reiseliv tilbyr din virksomhet?

Med aktiviteter menes hva som din virksomhet organiserer på andres eller egne vegne og som du selger til egne kunder. Betalte guidede aktiviteter er når en person er med gjestene på aktiviteten.

Utleie av utstyr: f.eks. båter, sykler, fotostativ og annet utstyr mot betaling. Med tilretteleggning menes det å tilby informasjon og opplag for selvguiding, m.m. Kunden kan betale direkte for dette eller det kan være gratis/mbakt i totalpakke.

Sett kryss for alle de aktivitetene/kategoriene dere tilbyr.

	1	2	3
Vandring/foturer/toppturer (ikke klattng)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sykling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turridning med hest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Langrenn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tugeturer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ski- og snowboard (toppturer, løssnokjøring/friljøkjøring)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ekspedisjonsturer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Båtsigheising, flordcruiser, havratting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Snøskuturer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Luftbaserte aktiviteter (f.eks. fallskjerm, paragliding, hanggliding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Luftbaserte aktiviteter (f.eks. fallskjerm, paragliding, hanggliding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Actionsport/white water (på ferskvann (f.eks. rafting, eivokajakk, surfing, kiting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre aktiviteter (på ferskvann (f.eks. kano, kajakk, robbåt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Actionsport (på saltvann (f.eks. kiting, surfing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "mer enn 5"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "4"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "2"
 •)

Q19

15) I hvilken grad brukes områdets status som nasjonalpark i markedsførningen av virksomheten?

- Brukes ikke = 1
 2
 3
 4
 5
 6
 I svært stor grad = 7
 Vet ikke (-1)

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "1"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "2"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "mer enn 5"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "4"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "2"
 •)

Q20

16) Hva slags betydning har nasjonalparkstatusen for at virksomheten skal kunne drive med naturbasert reiseliv? Med «nasjonalparkstatus» mener vi ikke regler og vernebestemmelser, men at området er en nasjonalpark.

- svært negativ betydning = -3
 -2
 -1
 nøytral = 0
 1
 2
 svært positiv betydning = 3
 Vet ikke

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "1"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "mer enn 5"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "4"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "2"
 •)

17) Hvilken betydning mener du at den eller de nasjonalparkene som din bedrift opererer i (eller i randsonen til) har for området?... Obligatorisk

	svært negativ betydning = -3	nøytral = 0	svært positiv betydning = 3	Vet ikke
...attraktivitet for turister?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...generelle turismeutvikling?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...tilgjengelighet (veier, plasser, transporttjenester)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...turistressige tilrettelegging for øvrig (skiltene, stier, informasjonstiltak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...turistressige infrastruktur for øvrig (overnattingsstid, serveringssteder og annen service)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "1"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "mer enn 5"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "4"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 • eller
 • Hvis "Velig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "2"
 •)

18) Hva slags påvirkning har nasjonalparkens vernebestemmelser (verneforskrifter, forvaltningsplan mv) for utviklingen av din virksomhet?

- svært negativ påvirkning = -3
 -2
 -1
 ingen påvirkning = 0
 1
 2

- 6
- 1 svært stor grad = 7
- Vet ikke
- Uaktuelt

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
 - Hvis "Veig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "1"
 - Hvis "Veig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "3"
 - Hvis "Veig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "2"
 - Hvis "Veig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "5"
 - Hvis "Veig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "mer enn 5"
 - Hvis "Veig gjennomsnittlig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "4"

22) Hvordan vil du beskrive samarbeidet mellom reiselivsbedriftene og nasjonalparkforvaltningen der din virksomhet opererer?

- svært dårlig = -3
- 2
- 1
- verken/eller = 0
- 1
- 2
- svært godt = 3
- Vet ikke
- Uaktuelt

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
 - Hvis "Veig antall nasjonalparker som din virksomhet opererer i eller i randsonen til:" er lik "0"

NB: Hvis du tidligere svarte at din virksomhet ikke opererer i nasjonalpark eller andre verneområder, har du fått lov til å hoppe over noen spørsmål.

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
 - Hvis "T nasjonalpark" er lik "ikke i det hele tatt = 1"
 - Hvis "T randsonen (inndel 5 km.) til en nasjonalpark" er lik "ikke i det hele tatt = 1"
 - Hvis "T etlandsskapsverneområde" er lik "ikke i det hele tatt = 1"
 - Hvis "T et naturreservat/annet verneområde" er lik "ikke i det hele tatt = 1"

NB: Hvis du tidligere svarte at din virksomhet ikke opererer i nasjonalpark eller andre verneområder, har du fått lov til å hoppe over noen spørsmål.

23) Hvilken betydning vil du generelt sett si at nasjonalparkene har for turismeutviklingen i Norge?

- svært negativ betydning = -3
- 2
- 1
- hverken eller = 0
- 1
- 2
- svært positiv betydning = 3
- Vet ikke

24) Hvordan påvirker følgende areal- og naturbruk din virksomhets drift innen naturbasert reiseliv?

	svært negativt = -3	-2	-1	ingen påvirkning = 0	+1	+2	svært positivt = +3	Angår ikke bedrift	Vet ikke
Skogsbløteler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skogsbrukets hogst	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kraftmaster	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vannkraftutbygging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gruvedrift, steinbrudd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vindmøller	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hytteområder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reindrift	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Del 3: Organisering og stedstilhørighet

25) Hvordan er virksomhetens drift organisert idag?

- Sett ett kryss
- Enkeltdmannsforetak
- Begrenset ansvar (BA)
- Aksjeselskap (AS)
- Ansvarlig selskap, solidarsk ansvar (ANS)
- Ansvarlig selskap, delt ansvar (DS)
- Annet, skriv hva _____

26) Er virksomheten en familiebedrift?

- Ja

Q33 Nei

27) I hvilken kommune er din virksomhet registrert?

Med "registrert" menes hvor virksomheten skatter.

Kommune

Opererer virksomheten din i andre kommuner enn der den er registrert?

Med "opererer" menes hvor selvsjaktiviteten foregår.

Q35 = Fylke.

Q34 Ja
 Nei

Denne informasjonen vises kun i fornåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Opererer virksomheten din i andre kommuner enn der den er registrert" er lik "Ja"

28) I hvilke (n) kommune(r) opererer din virksomhet mest?

Med "opererer" menes hvor selvsjaktiviteten foregår.

A. Vi opererer mest i _____ kommune:

Denne informasjonen vises kun i fornåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Opererer virksomheten din i andre kommuner enn der den er registrert" er lik "Ja"

La B stå tomt hvis du kun opererer i 1 kommune.
La C stå tomt hvis du kun opererer i 2 kommuner.B. Vi opererer nest mest i _____ kommune: C. Vi opererer tredje mest i _____ kommune:

Hvis virksomheten også opererer i utlandet, skriv ned hvilke:

29) I hvilke av følgende bransjeorganisasjoner er virksomheten medlem?

Flere kryss er mulig

- A Din Tur
B HANEN
C Hovedorganisasjonen Virke
D NHO Reiseliv

Dette er en del av Quest

 Norges Bondelag Norges Skogelerforbund Norsk Bonde- og Småbrukarlag NORSKOG Norsk kulturarv Norsk setekultur Norsk økoturisme NOR-TIND - Norske Trudevegledere Destinasjonsselskap Annet lokalt næringselskap Andre organisasjoner. Skriv hvilke:

Del 4: Status, mål og nytenkning

30) Hvilken av følgende faser synes du best beskriver virksomhetens arbeid med naturbasert reiseliv?

Selt ett kryss

 I oppstartsfasen Vekstfase Moden/stabil fase Nedtrapningsfase Avviklingsfase Vet ikke

31) Hvor høyt eller lavt prioriterer virksomheten følgende måsetninger i sitt arbeid med naturbasert reiseliv?

Svært
lavt
prioritert
= 1

2

3

4

5

6

7

Svært
høyt
prioritert
= 7Vet
ikke

Størst mulig inntekt

Sikker og stabil inntekt

Selvstendighet

Interessant jobb

Kunne bo der vi bor idag

Kunne arbeide ute i naturen

Utnytte lokale naturressuser til næring

Sosial kontakt med kunder

GI kundene en god naturopplevelse

Formidle holdninger om naturverdi til kundene

Bidra til bærekraftig reiselivsutvikling

Om det er mål som er viktige for virksomheten, men ikke listet opp, så kan du skrive de inn her:

Q42

Del 5: Kompetanse og suksessfaktorer i arbeidet med det naturbaserte reiselivet

32) For å nå virksomhetens mål innen naturbasert reiseliv, hvilken betydning har det å ha tilgang på eksterne eller egen kompetanse på følgende områder?

Q43

Eksterne kompetanse kan være noe man betaler for eller får gratis gjennom eksempelvis Innovasjon Norge, kommune/fylke/stat, reiselivsnettverk/andre bedrifter, turoperatører, destinasjonsselskaper, næringsorganisasjoner, konsulentfirmaer, forslingsmiljøer etc. Bruk eventuelt "annet"-feltet under til å spesifisere/kommentere.

	ingen betydning = 1	2	3	4	5	6	svært viktig = 7	Vet ikke
Ledelse, organisering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Økonomi, markedsføring, salg	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Servering, overnatting, transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Produktutvikling, kreativitet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guiding, formidling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Naturforvaltning, naturkunnskap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jus, arealplanlegging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Klima, bærekraft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samfunn, politikk, kultur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Språk (utover norsk)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Anden viktig kompetanse som ikke er listet opp:

33) Har virksomheten behov for mer kompetanse på noen av følgende områder i sitt arbeid med naturbasert reiseliv?

Det er mulig å sette flere kryss.

- Q44
- Q45
- Q46
- Q47
- Q48
- Q49
- Q50
- Q51
- Ledelse, organisering
 - Økonomi, markedsføring, salg
 - Servering, overnatting, transport
 - Produktutvikling, kreativitet
 - Guiding, formidling
 - Naturforvaltning, naturkunnskap
 - Jus, arealplanlegging
 - Klima, bærekraft

- Q46
- Q47
- Q48
- Q49
- Q50
- Q51
- Samfunn, politikk, kultur
 - Språk (utover norsk)

Eventuelt annen kompetanse som du savner:

Q46

34) I hvilken grad har følgende faktorer betydning for å nå virksomhetens mål innen naturbasert reiseliv?

	ingen betydning = 1	2	3	4	avgjørende betydning = 5	Vet ikke
Lederskap (engasjement, kompetanse)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nettverk (sertifisering, samarbeid, bransjeforeninger)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eksterne støtte (økonomiske subsidier, forbilder/inspiratører)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Livsstil (interesse for friluftsliv, familiens engasjement)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finansieringssituasjon (muligheter for å gjøre større investeringer)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fri tilkomst og fri ferdsel i naturrområder (allemannsretten, strandsoneloven)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Erfaring (personaltets utdanning/kompetanse/tidligere erfaring)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lokal tilknytning (lokal forankring, tilgang til anlegg)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Naturressurser (tilgang/energi til naturressurser)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Eventuelle andre viktige faktorer:

35) I hvilken grad kan følgende faktorer virke inn som hindringer for å nå virksomhetens mål innenfor naturbasert reiseliv?

	ingen betydning = 1	2	3	4	avgjørende betydning = 5	Vet ikke
Eksterne restriksjoner (lover, reguleringer, myndighetsutøvelse, grunnlovere)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personale (rekruttering, utdanning, kompetanse)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kapital og kunnskap (dårlig lønnsomhet, mangel på kapital, kunnskapsmangel)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fri tilkomst og fri ferdsel i naturrområder (allemannsretten, strandsoneloven)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mengdelnde destinasjonsmarkedsføring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

05.03.13 Forhåndsvisning Quest

37) Manglende tilgang til naturressuser

Lokalisering (manglende infrastruktur, geografisk plassering)

Eventuelle andre viktige faktorer:

Q50

Q51

Del 6: Miljøsertifisering

36) Er virksomheten miljøsertifisert?

For eksempel gjennom Norsk Økoturisme, Miljørytårn, ISO14001, Bått Flagg.

Sertifisering pågår/er sertifisert

Nei

Vet ikke

Q52

37) Hva slags påvirkning tror du en eventuell eller eksisterende miljøsertifisering av deres naturbaserte reiselivsvirksomhet vil ha, når det gjelder å bidra til:

	svært negativ påvirkning = -3	-2	-1	0	1	2	3	svært positiv påvirkning = 3	Vet ikke
Å øke kundemassen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Økt lønnsomhet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Å nå en annen type kunder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Godt omdømme ("goodwill")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivasjon og engasjement hos de ansatte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Eventuelle andre viktige faktorer:

Q53

Q54

Del 7: Økonomi

For å kunne få fram viktig statistikk om omfanget av naturbasert reiseliv i Norge trenger vi å vite noen økonomiske tall for bedriftene. Vi minner om at dine svar er til stor hjelp for oss. Hva du svarer på vegne av din virksomhet forblir anonymt da vi bare oppgir tall fra større grupper av bedrifter uten å nevne dem.

38) Vi ønsker gjerne så presise tall som mulig fordi kunnskap om naturbaserte reiselivsbedriftene er sårt tiltrengt. Om du har virksomhetens regnskap eller lignings tall tilgjengelig for 2011 eller 2012 så vennligst ta fram dem. Om du ikke har disse tilgjengelig så svar så godt du kan. Vi ber deg svare for det året du har mest nøyaktig oversikt for.

Jeg har mest nøyaktige tall for 2011

Jeg har mest nøyaktige tall for 2012

05.03.13 Forhåndsvisning Quest

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- () Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

Q55

A. Samlet næringsvirksomhet

39) Mange virksomheter har naturbasert reiseliv som kun en del av sin totale inntektsportefølje. Om du tar med all slags næringsaktivitet som virksomheten driver, omtrent hvor stor var totalomsættningen i 2011?

Skriv beløpet i felket under. Du kan runde av svaret om det er enklere. Skriv "X" hvis du absolutt ikke ønsker å oppgi omsetningstall.

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- () Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

Q56

40) Totalt sett for alle næringsaktiveiter, omtrent hvor mange personer og årsverk inkludert deg selv var ansatt i virksomheten i 2011?

Rund av om du ikke har det nøyaktige tallet.

A. Antall personer:

Q57

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- () Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

B. Naturbasert reiseliv

41) For året 2011, omtrent hvordan fordeles virksomhetens årsverk knyttet til naturbasert reiseliv seg på henholdsvis:

A. Helseansatte (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

B. Deltidansatte gjennom hele året (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

C. Sesongarbeidere (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

42) For året 2014, hvordan fordeles virksomhetens årsverk knyttet til naturbasert reiseliv seg på gruppene under.

Fyll ut 0 om ingen i gitte kategori. Gi et anslag. Gjerne bruk tidsså-sverker om nødvendig.

A. Lokalt bosatte; folkeregisteret i kommunen(e) der aktivitetene foregår (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

B. Utenbygds ansatte; folkeregisteret i annen norsk kommune (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

C. Utenlandske ansatte; folkeregisteret i utlandet (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

43) Omtrent hvor store kostnader knyttet til naturbasert reiseliv hadde din virksomhet i 2011?

Kostnader inkluderer eksempelvis: lønnskostnader, vareinnkjøp, strøm, vedlikehold, innkjøp av tjenester, avskrivning på investeringer etc. Gi et anslag og skriv beløpet. Skriv X om du absolutt ikke vil oppgi dette.

- 0 / ingen
- Antall kroner: **0616 420 000**

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

44) For 2011, omtrent hvor stor andel av virksomhetens kostnader knyttet til naturbasert reiseliv, utgjorde brutto lønnskostnader (inkl. sosiale utgifter, arbeidsgiveravgift)?

I prosent.

Veig alternativt: **Denne informasjonen vises kun i forhåndsvisningen**

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2011"

45) Omtrent hvor stor andel av omsetningen innen naturbaserte reiseliv stod de ulike kundegruppene for i 2011?

I prosent. Summeres til 100%.

Kurs og konferansemarkedet ("bedriftsmarkedet")	0	10	20	30	40	50	60	70	80	90	100
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

C. Sesongarbeidere (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

42) For året 2012, hvordan fordeles virksomhetens årsverk knyttet til naturbasert reiseliv seg på gruppene under:

A. Lokalt bosatte; folker registret i kommunen(e) der aktivitetene foregår (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

B. Utenbygds ansatte; folker registret i annen norsk kommune (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

C. Utenlandske ansatte; folker registret i utlandet (antall årsverk):

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

43) Omtrent hvor store kostnader knyttet til naturbasert reiseliv hadde din virksomhet i 2012?

Kostnader inkluderer eksempelvis: lønnskostnader, vareinnkjøp, strøm, vedlikehold, innkjøp av tjenester, avskrivning på investeringer etc. Gi et anslag og skriv beløpet. Skriv X om du absolutt ikke vil oppgi dette.

0 / Ingen
 Antall kroner:

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

44) For 2012, omtrent hvor stor andel av virksomhetens kostnader knyttet til naturbasert reiseliv, utgjorde brutto lønnskostnader (inkl. sosiale utgifter, arbeidsgiveravgift)?

Sett ett kryss. I prosent:

Velg alternativ:

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

45) Omtrent hvor stor andel av omsetningen innen naturbaserte reiseliv stod de ulike kundegruppene for i 2012?

I prosent. Summeres til 100%.

	0	10	20	30	40	50	60	70	80	90	100
Kurs og konsernemarkedet ("bedriftsmarkedet")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ferie og fritidsnaarkedet ("privatnaarkedet")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- ()
- Hvis "Jeg har mest nøyaktige tall for..." er lik "Jeg har mest nøyaktige tall for 2012"
-)

46) Omtrent hvor stor andel av omsetningen innen naturbasert reiseliv utgjorde kunder fra følgende regioner i 2012?

Sett 0 om du ikke har kunder fra den regionen. I prosent. Summeres til 100%.

Kunder fra	0	10	20	30	40	50	60	70	80	90	100
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 1

05.03.13

Finishing Quest



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Appendix 1

Appendix 2

	A	P	G	Total
Nord-Norge	11,32 %	8,97 %	9,26 %	29,55 %
Midt-Norge	8,68 %	2,94 %	4,70 %	16,32 %
Vest-Norge	8,23 %	5,89 %	8,53 %	22,65 %
Sør-Norge	0,88 %	1,32 %	2,50 %	4,70 %
Øst-Norge	5,88 %	8,23 %	12,63 %	26,74 %
Total	34,99 %	27,35 %	37,62 %	99,96 %

Nord-Norge	77	61	63	201
Midt-Norge	59	20	32	111
Vest-Norge	56	40	58	154
Sør-Norge	6	9	17	32
Øst-Norge	40	56	86	182
Total	238	186	256	680

Alt. Innlandet	2,21 %	5,15 %	5,73 %	13,09 %
	15	35	39	89

(Finnmark, Troms, Nordland, Nord-Trøndelag, Sør-Trøndelag, Møre og Romsdal and Hedmark)

Reindeer herding	25,14 %	14,41 %	18,22 %	57,77 %
	171	98	124	393

Table: Summary.

	Cases		Missing		Total	
	Valid N	Percent	N	Percent	N	Percent
Fylke * CLUS_1	680	99,3	5	0,70 %	685	100,00 %

Table: Fylke * CLUS_1 [count, row %, column %, total %].

Fylke	CLUS_1				Total	
	A	P	G	Total		
Akershus	4,00	3,00	8,00	15,00	Count	
	26,67 %	20 %	53,33 %	100,00 %	Row%	
	1,68 %	1,61 %	3,13 %	6,42 %	Column%	
	0,59 %	0,44 %	1,18 %	2,21 %	Total %	
Aust-Agder	4,00	2,00	10,00	16,00	Count	
	25 %	12,50 %	62,50 %	100,00 %	Row%	
	1,68 %	1,08 %	3,91 %	6,67 %	Column%	
	0,59 %	0,29 %	1,47 %	2,35 %	Total %	
Buskerud	4,00	14,00	19,00	37,00	Count	
	10,81 %	37,84 %	51,35 %	100,00 %	Row%	
	1,68 %	7,53 %	7,42 %	16,63 %	Column%	
	0,59 %	2,06 %	2,79 %	5,44 %	Total %	
Finnmark	23,00	17,00	16,00	56,00	Count	
	41,07 %	30,36 %	28,57 %	100,00 %	Row%	
	9,66 %	9,14 %	6,25 %	25,05 %	Column%	
	3,38 %	2,50 %	2,35 %	8,23 %	Total %	

Appendix 2

Hedmark	12,00	9,00	17,00	38,00	Count
	31,58 %	23,68 %	44,47 %	99,73 %	Row%
	5,04 %	4,84 %	6,64 %	16,52 %	Column%
	1,76 %	1,32 %	2,50 %	5,58 %	Total %
Hordaland	6,00	11,00	14,00	31,00	Count
	19,35 %	35,48 %	45,16 %	99,99 %	Row%
	2,52 %	5,91 %	5,47 %	13,90 %	Column%
	0,88 %	1,62 %	2,06 %	4,56 %	Total %
Møre og Romsdal	23,00	8,00	16,00	47,00	Count
	48,94 %	17,02 %	34,04 %	100,00 %	Row%
	9,66 %	4,30 %	6,25 %	20,21 %	Column%
	3,38 %	1,18 %	2,35 %	6,91 %	Total %
Nordland	35,00	24,00	34,00	93,00	Count
	37,63 %	25,81 %	36,56 %	100,00 %	Row%
	14,71 %	12,90 %	13,28 %	40,89 %	Column%
	5,15 %	3,53 %	5,00 %	13,68 %	Total %
Nord-Trøndelag	35,00	11,00	19,00	65,00	Count
	53,85 %	16,92 %	29,23 %	100,00 %	Row%
	14,71 %	5,91 %	7,42 %	28,04 %	Column%
	5,15 %	1,62 %	2,79 %	9,56 %	Total %
Oppland	11,00	21,00	20,00	52,00	Count
	21,15 %	40,38 %	38,46 %	99,99 %	Row%
	4,62 %	11,29 %	7,81 %	23,72 %	Column%
	1,62 %	3,09 %	2,94 %	7,65 %	Total %
Oslo	0,00	1,00	2,00	3,00	Count
	0,00 %	33,33 %	66,67 %	100,00 %	Row%
	0,00 %	0,54 %	0,78 %	1,32 %	Column%
	0,00 %	0,15 %	0,29 %	0,44 %	Total %
Rogaland	7,00	3,00	11,00	21,00	Count
	33,33 %	14,29 %	52,38 %	100,00 %	Row%
	2,94 %	1,61 %	4,30 %	8,85 %	Column%
	1,03 %	0,44 %	1,62 %	3,09 %	Total %
Sogn og Fjordane	20,00	18,00	17,00	55,00	Count
	36,36 %	32,73 %	30,91 %	100,00 %	Row%
	8,40 %	9,68 %	6,64 %	24,72 %	Column%
	2,94 %	2,65 %	2,50 %	8,09 %	Total %
Sør-Trøndelag	24,00	9,00	13,00	46,00	Count
	52,17 %	19,57 %	28,26 %	100,00 %	Row%
	10,08 %	4,84 %	5,08 %	20,00 %	Column%
	3,53 %	1,32 %	1,91 %	6,76 %	Total %
Telemark	6,00	2,00	12,00	20,00	Count
	30,00 %	10,00 %	60,00 %	100,00 %	Row%
	2,52 %	1,08 %	4,69 %	8,29 %	Column%
	0,88 %	0,29 %	1,76 %	2,93 %	Total %
Troms	19,00	20,00	9,00	48,00	Count
	39,58 %	41,67 %	18,75 %	100,00 %	Row%
	7,98 %	10,75 %	3,52 %	22,25 %	Column%
	2,79 %	2,94 %	1,32 %	7,05 %	Total %

Appendix 2

Vest-Agder	2,00	7,00	7,00	16,00	Count
	12,50 %	43,75 %	43,75 %	100,00 %	Row%
	0,84 %	3,76 %	2,73 %	7,33 %	Column%
	0,29 %	1,03 %	1,03 %	2,35 %	Total %
Vestfold	1,00	4,00	6,00	11,00	Count
	9,09 %	36,36 %	54,55 %	100,00 %	Row%
	0,42 %	2,15 %	2,34 %	4,91 %	Column%
	0,15 %	0,59 %	0,88 %	1,62 %	Total %
Østfold	2,00	2,00	2,00	6,00	Count
	3,33 %	33,33 %	33,33 %	69,99 %	Row%
	0,84 %	1,08 %	0,78 %	2,70 %	Column%
	0,29 %	0,29 %	0,29 %	0,87 %	Total %
Svalbard	0,00	0,00	4,00	4,00	Count
	0,00 %	0,00 %	100,00 %	100,00 %	Row%
	0,00 %	0,00 %	1,56 %	1,56 %	Column%
	0,00 %	0,00 %	0,59 %	0,59 %	Total %
Total	238,00	186,00	256,00	680,00	Count
	35,00 %	27,35 %	37,65 %	100,00 %	Row%
	100,00 %	100,00 %	100,00 %	300,00 %	Column%
	35,00 %	27,35 %	37,65 %	100,00 %	Total %

Table: Chi-square tests.

Statistic	Value	df	Asymp. Sig. (2-tailed)
Pearson Chi-Square	82,09	0,38	0,00
Likelihood Ratio	88,04	0,38	0,00
Linear-by-Linear Association	1,20	1,00	0,27
N of Valid Cases	680		



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