Communicating Paradox: Uncertainty and the Northern Lights

Bente Heimtun, UiT The Arctic University of Norway
Brent Lovelock, University of Otago

Abstract

While many characteristics of tourism products are well known, relatively little work has explored elements of uncertainty and risk. Little is known about how tourism operators communicate aspects of uncertainty. This qualitative study uses content analysis to explore the language used in promotional material of tour operators and destination management organisations to communicate the unpredictable nature of northern lights. The study involves two Norwegian destinations (2004-2014). Three rhetorical strategies are identified: first, the rhetoric of technology, enhanced mobility, and adding additional activities; secondly, through 'hiding' or obscuring the uncertainty; and thirdly, through employing culturally and geographically appropriate metaphors (i.e. 'hunt') to embrace the element of uncertainty. This study advances our understanding of how tourism operators rhetorically address temporally and/or spatially uncertain attractions by demonstrating how the operators negotiate and minimise uncertainty through the narrative of 'the hunt'. This rhetoric implies that uncertainty can enhance value in a touristic experience.

1. Introduction

Tourism in the Arctic has been increasingly associated with the Aurora borealis or Northern Lights (NL) which are a major motivator for visiting destinations in the north in the winter (Edensor, 2010; Heimtun & Viken, 2016). But to date little research has been conducted on NL as a tourism product (Edensor, 2010; Bertella 2013), despite the fact that gazing at northern/southern lights is an important component of what Weaver describes as 'celestial tourism' - 'the observation and appreciation of naturally occurring celestial phenomena' (2011, p.39).

While NL has been a boon in terms of helping to address seasonality issues in northern regions the last decade (Heimtun, 2015), to the extent that the industry now uses the label northern lights tourism (NLT), the display of NL is difficult to forecast locally as they depend upon the solar wind (University of Alaska Fairbanks, 2015), clear sky and local climate.

Tourists may therefore have to visit a region for a number of nights until they get an opportunity to see the lights. That sightings of this celestial phenomenon cannot be controlled by the tourism industry constitutes a major challenge to the marketing and delivery of NLT, and there are implications of this risk or uncertainty for a number of stakeholders in NLT, including the tourist, the tourism provider, and the indirect beneficiaries of tourism expenditure within northern regions.

In a similar way to some other tourism attractions, (e.g. wildlife tourism), NLT relies upon a naturally occurring phenomenon that is temporally and spatially discontinuous. But even though sightings of the lights, other celestial phenomena, and wildlife such as whales, penguins, and so on can be rare, tour operators still offer these forms of tourism and tourists continue to buy such products. Although some of the tourists' excitement lies in the anticipation of the possibility of seeing a natural phenomenon (Curtin, 2010), the possibility of non-sightings adds to the challenge of selling such 'uncertain' tourism products and experiences – defined as those where the aspect of supply cannot be guaranteed, or where there is a low possibility of the tourist actually experiencing the 'promised' phenomenon.

Such tourism operators need to deal with this uncertainty in both the promotional (pre-visit) and operational (visit) phases of the tourist experience. In this paper we focus on the former by examining how destination management organisations' (DMOs) and tour operators in Northern Norway communicate the uncertainty of their product in sales brochures through the language of marketing. We also consider how such messages may have changed over a period which has seen considerable growth in the market and in the number and diversity of NLT products. This knowledge will contribute to our understanding not only of celestial tourism, but more broadly about what rhetorical strategies the tourism industry uses to manage uncertainty in the supply of 'temporally and spatially uncertain tourism products'. We continue by examining relevant literature and methods used in the study, before exploring and discussing the seven rhetorical strategies employed by the tour operators and DMOs.

2. Literature Review

2.1 Uncertainty in supply of tourism products/experiences

Here we explore the marketing and delivery of NLT through a broad framework of risk. Our understanding of risk in tourism has been considerably advanced by the recent

contribution of Williams and Balaz (2015) who make a number of points relevant to NLT and similar temporally/spatially risky tourism products. First, risk and uncertainty are inherent to tourism, and can provide lenses for deepening our understanding. The authors highlight the difference between risk and uncertainty, citing the work of Knight (1921) who associated risk with 'known uncertainties', and uncertainty with 'unknown uncertainties'. To simplify, risk may be quantifiable, whereas uncertainty is not. A central premise concerning risk "is that this begins where knowledge ends" (Williams & Balaz, 2015, p. 272). As Maubossin (2007) writes, "Risk has an unknown outcome, but we know what the underlying outcome distribution looks like. Uncertainty also implies an unknown outcome, but we don't know what the underlying distribution looks like". While the manifestation of the Aurora may be unpredictable on a night-to-night basis, we know the underlying outcome distribution. This for the purposes of this paper, we focus upon the element of risk, which is clearly more applicable to the phenomenon under investigation.

What is important, however, is the "lack of control that most tourism firms exercise over the tourist experience, which is shaped by a range of other actors and external events" (Williams & Balaz, 2015, p. 275). However, strategies may be employed for *managing* risk. At the firm level, these include: acquiring and utilising knowledge; trust; diversification; and insurance/hedging. Similarly, addressing supply chain risk is an important management task (e.g. Olson and Wu, 2010).

Risk also manifests at different scales, from the individual to group and destination scales (Williams & Balaz, 2015). Importantly, this opens the discussion to consideration of how the perceptions of risk may differ between the tourist and the tourism provider. Central to these differences may be the role of knowledge, which may determine how the degree of risk (financial, performance or time) is perceived (Laroche, McDougall, Bergeron, & Yang, 2004; Quintal, Lee & Soutar, 2010). This will influence tourists' purchase decisions and firms' marketing and delivery approaches.

Our point of departure, however, is that risk of failure can be 'good', which is somewhat counter-intuitive. Typically, risk has been cast in a negative light - notwithstanding the growth of adventure and risk-seeking tourists (e.g. Elsrud, 2001; Laviolette, 2010). This latter category of tourism, however, relates more to the provision of sensations to tourists in ostensibly risky, but really risk-managed environments. Williams and Balaz (2015) in their

review of tourism risk and uncertainty research provide little room for interpretation of risk in a more positive light, for example around monetary/financial and performance risk (Solomon, 1999), the areas of risk which are more relevant to NLT.

However, others have identified a link between risk and authenticity of the tourism product - and by extension, with visitor satisfaction. Wang (1999) for example identifies the need for individuals to turn to tourism and the risk or uncertainty that this entails in order to counter the over-predictability of everyday life, and how this is an essential component of desired 'intra-personal authenticity' in tourism. Similarly, Hinch and Higham (2001) write about how the uncertainty of sporting outcomes is essential to the authenticity (and thus attractiveness and success) of sport tourism.

To gain a better understanding of the importance of risk in the tourism experience we can draw upon the experiences associated with other forms of temporally/spatially risky tourism products, in particular, wildlife tourism. Sighting elusive wildlife is unpredictable due to the vagaries of animal behaviour and other ecosystem interactions. So how important is this for the tourist? Some wildlife viewers accept that finding animals is unpredictable "and value the experience even when they don't get to observe the animal, while appreciating actual sightings all the more for their rarity" (Knight, 2009, p. 168). Evidence (e.g. from whale watching (Orams, 2000; Valentine, Birtles, Curmock, Arnold & Dunstan, 2004)) suggests that while sighting the target species is important, visitor satisfaction is not solely linked with this, and that other elements (of the 'hunt') contribute to visitor satisfaction in the absence of a sighting. Despite this, for many wildlife tourists there is an expectation of a sighting. And in a similar way to our NLT operators, as we discuss below, many commercial operators market their tours "with a promise of close-up views" (Knight 2009, p. 168). While such promises may be seen by operators as a means of managing their risk (in this case financial risk) it is unlikely that such a strategy will be sustainable, as inevitably the gap between visitor expectations and experience will lead to discontent and likely negative word of mouth (and social media) messages about these operators.

The notion that risk can enhance customer value (outside of specific niche adventure tourism activities) has not really been explored. Boksberger and Craig Smith (2006), for example, in their 'risk-adjusted model' of customer value and risk, portray risk (objective or subjective) as something to be minimised. They suggest that operators address perceived risk

on the part of potential customers, through managing their marketing communications. So, indeed, it is little surprise that providers of temporally risky tourism products such as wildlife tourism, or NLT, through such communications may promise more than they can deliver.

In summary, this review portrays little positive in terms of risk for the tourist or the tourism provider, despite inklings that it may be related to authenticity of experience. Strategies for managing risk in the supply of temporally/spatially unpredictable tourism products are unclear. Our study explores strategies that two destinations and their tourism operators have adopted, focusing on, as Boksberger and Craig Smith (2006) suggest, marketing communications.

3. Case study areas and development of NLT

The towns of Tromsø and Alta are the main NL destinations in Northern Norway. Tromsø is situated in the county of Troms and Alta in the county of Finnmark, both above the Arctic Circle (66° N) and situated near the geomagnetic/auroral pole, the zone of maximum frequency of NL displays. Although the lights have fascinated travellers to the north for centuries, commercialised NLT has been slow to start. In the 1990s, in Tromsø, NL packages were sold to a small number of Japanese group tourists (Borch, Moilanen, Olsen & Rydningen, 2006), and until 2006 this was the main market, with NL sightings mostly taking place in the town centre (outside the hotels). The real starting point for NLT, for both Tromsø and Alta was the winter of 2004-2005, when individual tourists, for the first time, were offered scheduled guided tours on a daily basis (Table 1). Table One shows the number of tour operators and tours offered each season in the two cities from 2004-2014 (with the exception of a few seasons from which we were unable to get access to the catalogues, labelled N/A). By the season of 2013-2014, NLT had expanded in Tromsø to include 40 tour operators offering 48 guided tours, and in Alta (2012-2013) five tour operators and six guided tours.

Insert table 1 here

Table One also shows the development of four types of NL tours; base camp visits, tours by road/sea (also labelled ‘pure’ tours as they do not include other activities), tours with add-ons (other activities such as dog sledding and snow-mobiling) and tours with overnight stays and add-ons. The first season in Tromsø (2004-2005) tourists could buy base camp visits (also

meet/learn more about dogs, reindeer and Sami culture, and engage in activities such as kick sledding, walks, snowshoeing and tobogganing). From 2007-2008 snowmobiling was offered, and from the next season dog sledding, reindeer sledding and horse riding. From 2008-2009 'pure' motorised tours were introduced and this type of tour subsequently experienced the biggest growth in number of products and producers. In Alta the product assortment has remained consistent over the study period; base camp visits, dog sledding tours, snow mobile safaris and outdoor hot tubbing in the town. In Alta, the motorised tours started in 2009-2010, and a cruise was offered in one season.

Heimtun and Viken (2016) have suggested some explanations for the different development paths of the two destinations: Tromsø is a bigger community with more (tourism) facilities, easier national and international access, a local DMO (Destination Tromsø until 2009, then Visit Tromsø) and a long tradition as a tourist destination; Tromsø is hence a more known brand and has a more positive destination image in the market place. Although, Alta was part of Finnmark Reiseliv's (regional DMO) winter project from 2002-2010 this did not result in the same growth as Tromsø. Lack of a local DMO (Destination Alta was closed down in 2001) and sporadic provision of tourist information in the winter over the years has not helped matters.

Tromsø's success as a NL destination, however, really began in the winter of 2008-2009, after the airing of the BBC documentary *Joanna Lumley: In the Land of the Northern Lights*. This was an important driver for NLT, not only in Tromsø, but in Northern Norway more generally. In this documentary Lumley experienced the lights in the Tromsø area, assisted by a local tour operator. Consequently, numbers of international winter guest nights (December-April) have grown; in Tromsø from 4,000 in 2005 to 50,000 in 2012 (40% from the UK); and in Alta from 800 in 2005 to 4,000 in 2012 (mostly from the UK and Germany) (Statistikknett, 2014). These statistics, however, do not provide a complete picture as tours are offered from October to April (the dark season). Hence, in Tromsø, it was estimated that 80,000 individual NL tours were sold in the season 2014-2015 (Haugen, 2015). While Tromsø has a more developed NLT sector, Alta's smaller scale and slower growth provides a useful comparative aspect to the study, in terms of gauging how growth and competition may affect operators' presentation of uncertainty.

4. Method

In this project, we drew upon grounded theory in order to identify textual strategies used in the marketing of NLT in Tromsø and Alta regarding uncertainty (Charmaz, 2006). We selected 17 brochures published by DMOs in Tromsø (seven brochures) and Finnmark (ten brochures for Alta) from 2004 to 2014 (note we were unable to get access to four volumes (see Table 1)). These brochures contained two types of written information; facts about the destination and NL (written by the DMOs), and tour descriptions (203 in total, written by the 42 tour providers). As an introduction to the tours both DMOs produced standardised short texts. The text on NL tours, written by the tour providers, comprised between 50 and 100 words in both destinations. All text was written without any professional guidance, according to the DMO's.

In analysing the data, we used a modified version of grounded theory coding principles (Charmaz, 2006). As our aim was not to construct a grounded theory from the data, the modified version meant that the first initial coding was undertaken on text relevant to understanding the rhetoric of uncertainty. The first step therefore involved careful reading of all extant text about northern lights and northern lights tours in the brochures and then coding content that described the uncertainty of the lights. This was done by using coding sheets that mapped destination, year of publication, company and type of NL tour (Schreier, 2012). In this phase the researcher mainly used *in vivo* codes (Charmaz, 2006), thus terms used in the catalogues. After the open coding we conducted axial coding, specifying the 'properties of a category' (Charmaz, 2006, p. 60). Based on the *in vivo* codes we identified seven key themes around the communication of uncertainty. This part of the analysis was also undertaken manually by one of the researchers who explored different ways to organise the codes into categories, while still being able to clearly relate the codes and categories to the two destinations and the four types of NL tours. The researcher did this by using coding sheets for each key theme (Schreier, 2012). Here each line represented how the different companies communicated uncertainty each year, in each location.

The study used one primary coder (an 'expert' with twenty years research experience in Nordic tourism), but in order to address 'confirmability' i.e. that the study's interpretations and conclusions are grounded in actual data that can be verified (Cresswell and Miller, 2000; Golafshani, 2003; Given & Saumure, 2008), a secondary coder independently coded ('peer-

checked' (Cresswell, 2013)) a sample of the brochures. We also addressed what Krippendorf (1980, pp. 130-132) identifies as 'stability' in content analysis i.e. the ability of a researcher to code data the same way over time. This involved the primary coder revisiting the data several months after the initial coding, to ensure that their coding was consistent with the initial coding, ensuring 'intra-coder' reliability. These assessments of both inter and intra-coder reliability suggest that the codes and subsequent themes identified are reliable measures of the phenomenon under investigation. The findings are presented below thematically.

5. Results

5.1 Communicating uncertainty

We identified seven themes relating to the rhetoric of uncertainty around NLT; the location; mobility; the guide; the tourist; serendipity; weather; and science. Of the 203 NL tour descriptions only a relatively small number (29 in total) did *not* address issues of uncertainty. This oversight was evident for all types of tours, however, was less frequent for tours by road/sea and base camp visits. For instance, in some 30 per cent of the 'add on' tour descriptions uncertainty was not mentioned at all. Moreover, in the season 2007-2008, none of the five tour operators in Tromsø wrote about the possibility of NL failing to materialise, thereby implicitly promising the tourists sightings this season. That season the descriptions were very short and focused mostly on price, duration and other activities, however, uncertainty was addressed by Destination Tromsø in the introduction to the tours and in the Aurora fact section.

5.1.1 Location

Qualities of the location or place were embedded in the rhetoric of the DMOs and several of the companies, thus linking place with certainty in the NL experience. For instance, in the earlier brochures Finnmark Reiseliv claimed an historical connection to the NL by referring to the '*world's first northern lights observatory*', and by arguing that this history gave Alta the right to call itself '*The town of northern lights'*. In a similar vein Destination Tromsø claimed that the town was '*one of the places on earth with the greatest amount of northern lights activity'* and that *'our natural modesty prevents us from proclaiming Tromsø as the 'northern lights capital of the world'*" (2004-2005). In later brochures, however, this strategy was

modified with 'scientific' or 'factual' information now emphasising the town's location in the middle of the Auroral zone.

At the operator level too, NLT companies linked place with certainty, ubiquitously conveying the message that their products entailed taking the tourist to a '*perfect'* or the '*best'* location with '*no light pollution'*, '*no street lights'* or '*no city lights'*. The promise of darkness outside the town centre was thus used as a strategy for handling uncertainty, in particular in Tromsø. Claims include the location offering '*undisturbed'* or *'fabulous'* views of the sky. When tourism attractions are spatially discontinuous or uncertain, the first priority is to reassure the market that *this* is the best location to experience the attraction. Thus on both a macro (regional/destination) level and micro (operator/product) level, the special qualities of location or place are cited to impart a sense of certainty around NL sightings.

5.1.2 Mobility

The significance of mobility was in particular expressed through the use of chase/chasing and hunt/hunting in the tour descriptions and the tour titles. The notion of the 'hunt' for NL was first used by a company in Alta (2006-2007) '*Hunting the Northern Lights'*. One company in Tromsø, which offered the first tour by car (from 2008-2009), developed the notion of the 'chase' to communicate the good chances of tourists seeing the NL. In the first season this was expressed through the tour title '*Chasing the northern lights'* with the strapline '*Join the guide … for a relentless chase by car to track down the northern lights*'. Later, the tour title was changed to '*The Aurora Chaser…*'. For some companies the chase or hunt entailed going '*even to the Finnish border'*, while to others it meant changing locations several times during a tour, perhaps involving one or more camp sites. The notion that mobility could increase the chances of experiencing the NL was also acknowledged by the DMO in Tromsø which added a 'northern lights-o-meter' in 2013-2014 to each tour description. This meter meant that '*with a full score, the guide will try to go wherever the likeliness of seeing the lights is greatest'*.

5.1.3 Tour Guide

The tour guide's competence and interest in finding NL were part of the rhetoric of a number of NLT products, and in particular, tours by car or by sea. The descriptions of products sought to reduce the uncertainty of NL sightings by communicating the guide's personal involvement thereby labelling him/her as '*enthusiast'*, '*persistent'*, '*dedicated'*, as

having '*a lifetime Aurora experience*' or as being on '*a mission'*. For instance, one of the companies wrote: '*the most dedicated guide you can imagine! … Never trust the northern lights– but you can trust us. Whenever we have a real sighting, we "never" go home'*.

Moreover, the guides' formal qualifications are also mentioned e.g. '*professional guide'*, '*qualified guide'* or '*authorised guide'*. In a few descriptions this knowledge was elaborated on, for example the guide's knowledge of astronomy, or their familiarity with NL folklore. While actually being able to find the NL was the paramount guiding skill portrayed, a secondary, but highly relevant competence was the ability to assist tourists to take photos of the northern lights. Hence some guides were presented as professional photographers who would teach the tourists how to set up their cameras: '*Join our professional photographer in the chase of the northern lights. Learn how to capture it all on camera*'. For such an ephemeral attraction it is important for the tourist to be able to effectively 'capture' the phenomenon.

5.1.4 Tourists

Although the rhetoric of NL tour descriptions was predominantly about the tourists' need for guidance in finding the NL, such rhetoric also proposed that certain types of behaviour from the customers might also contribute to increasing their chances of NL sightings. This was first expressed by a company in Alta which offered base camp visits (2007-2008) and from that year Visit Tromsø also suggested that tourists increased their chances of seeing NL by staying out for a long time, and by being patient and dedicated; '*Don' t give up too easily. The patient and dedicated visitors are often rewarded!*' (the next season they even advised on the correct clothing for being outside for a long time). One company introduced the notion of '*the persistent Aurora watcher*'.

Through to the season 2009-2010 the main expected tourist behaviour was patience - waiting. This was especially communicated for base camp visits, however, waiting was increasingly suggested in a non-passive way, in that tourists would engage in other activities until the NL appeared e.g. eating a (Sami) meal; interacting with animals (reindeer, huskies and horses); sitting by the fire in the *lavvo* (Sami tent); and listening to stories about Sami culture. Tobogganing and snowshoeing were also suggested. By the seasons 2011-2014 this diversification (or distraction) approach was increasingly used, with other activities being cleverly integrated, for example, one operator suggesting that snowshoeing was '*an excellent*

way to keep warm so you stay out longer and increase your chances of seeing the lights'. For overnight stays this latter rhetoric was used as an argument for spending the night in a *lavvo*, cabin, or snow cave; '*An overnight stay in a wooden lavvo … increase the chances of seeing the northern lights. Stay up as long as you like'*.

5.1.5 Serendipity

The notion of NL being elusive was part of the marketing language around uncertainty. This was particularly the case in Alta, relating to many NLT products, mainly in the first two seasons (2004-2006). Moreover, Visit Tromsø started their brochure from 2007-2008 by stating '*The northern lights are unpredictable'*. Two companies offering dog sledding tours in Alta used the terms '*possibility of'* and '*hoping to spot'* the NL. Three of the four companies selling snowmobile tours here were also consistent in communicating uncertainty in rather vague ways: '*can offer*' and '*lucky*' and '*may catch'* were used. Hope and luck were also part of the tour descriptions of base camp visits in Tromsø, one company writing; '*… you will hopefully see some sparkling northern lights*'. The uncertainty of NL sightings meant that no guarantees could be granted, and this was stated by the DMOs; Finnmark Reiseliv in all brochures from 2007 and Visit Tromsø from 2011. Just four tour operators followed suit with this practice of providing a disclaimer. But one company followed up with the company's 'hit rate' thus addressing both liability *and* uncertainty: '*we do not provide a northern lights guarantee, but in the 2011/12 season we found the northern lights on about 90% of our tours*'.

5.1.6 Weather & Climate

Mobility, location and the competence of the guide, as three factors in reducing the uncertainty of NL sightings, were also communicated in close connection to climate and weather conditions. Often the chase or the hunt was about the guide's ability to find '*clear sky*', '*openings in the sky*' or '*optimal weather'*. One company in Tromsø, for instance, wrote '*If the conditions are good we stay at one spot … When very cloudy we travel around to different spots chasing the lights'*. Climatic conditions as a precondition of NL sightings was also linked to places with an inland climate. For instance, Finnmark Reiseliv argued in all brochures that '*The climate in Alta is dry and stable…, you have a good chance of spotting the northern lights over the town*.' One company in Tromsø communicated that low

precipitation reduces the uncertainty of NL sightings: '*the trip takes you to one of the driest places in Norway… increasing the chances of seeing the northern lights*'.

5.1.7 Science

The NL is a scientifically explainable natural phenomenon, which means that it is possible, within limits, to forecast. But only the DMO Visit Tromsø used the medium of science as a way of addressing the uncertainty of NLT, starting in the season 2007-2008. This first season they pointed to the preconditions of solar activity and the relative position of the earth, the latter meaning that Tromsø was situated in the Aurora zone in the evening. They also suggested a website where tourists could check solar activity. The next season this DMO elaborated on the solar activity by explaining that they were '*solar storms on the surface of the sun'* and that NL are '*particles that are hurled into space after storms on the sun's surface. They are attracted by the magnetic North Pole and enter the atmosphere in a ring-like zone around the poles'*, where Tromsø is situated. In the final season, 2013-2014, they introduced a quasi-scientific '*northern lights index*' (-meter) which indicated which type of tour to take to reduce uncertainty.

6. Discussion

Using longitudinal data and a comparative approach, we analysed NLT organisations' marketing communications - noted as being the most accessible way for tourism operators to deal with risk (Boksberger and Craig Smith 2006). Seven approaches to addressing risk in the supply of NLT were identified, which broadly align with three of the four strategies for managing risk identified by Williams and Balaz (2015); knowledge, trust and diversification. The enhanced importance of promotional material of NLT operators is highlighted in an environment where normal supply chain risk management is not applicable. For NLT, the findings suggest that as the competition has increased amongst operators and the NLT industry has become more professional, addressing the element of risk has become more sophisticated, from both operational and marketing perspectives. This study identifies a number of strategies employed in the marketing communications of NLT operators that include diversification, demonstrating mobility, modifying tourist behaviour, claims to knowledge, and the scientification of addressing risk around the phenomenon.

The longitudinal nature of the research clearly identifies that this rhetoric has changed from one that initially mainly focused only location – i.e. operating in/from the perfect place with no light pollution, and/or with the best weather/climate - to one that now contains a number of messages to allay the element of risk. Over time, the DMO, Visit Tromsø, has arguably developed the most sophisticated approach to risk, from initially simplistic claims about being the best place to see the NL, to the development of scientific or knowledge-based rhetoric which progressively conveys messages about certainty of the Aurora being related to qualities of the location, and to weather and climate. Employing 'science' and 'fact' in their messages has been an emergent strategy. The promotional material through which operators demonstrate their connection with science, provides an enhanced level of credibility that addresses the inherent risk for the tourist. Notably, tourism operators have demonstrated their connection with 'science' to not only improve their knowledge and operational capacity to 'predict' the Aurora, but also to build a sense of trust with their potential clients. Science means knowledge, which means predictability, and all are melded within promotional content to reduce risk in the minds of the potential purchaser of the NLT product. These and other claims to knowledge (e.g. we have the most knowledgeable and experienced guides) are important ways that operators negotiate risk in their environment.

Typically, the use of knowledge to reduce risk for firms is associated with the firm itself gaining knowledge of the product and market place (as noted by Williams and Balaz (2015) risk begins where knowledge ends), but in the case of NLT, a recent approach has been for the operator to promote the acquisition of knowledge by their *clients*, for example through suggesting that they visit 'scientific' websites about solar activity, to enable them to then make a risk-informed choice. Such suggestions along with the development of the 'northern lights-o-meter' are good illustrations of the enhanced use of scientific and pseudo-scientific knowledge to portray certainty rather than the risk of 'missing out'. The latter could be called an act of 'scientification', the gracing of a non-scientific process with an enhanced scientific property. Both, however, are essentially mechanisms of transferring the risk from the producers and the natural phenomenon to the tourists themselves and their choice of product or operator.

Increasingly, too, operators have been conveying messages suggesting the appropriate way for tourists to behave, in order to be successful i.e. exhibiting patience. This essentially transfers some of the risk to the client (tourist). In an interesting juxtaposition of immobility

and mobility, while extolling the virtues of patience and waiting, the promotional rhetoric also emphasizes the alertness, speed and readiness of the NLT operators, building trust in their ability to chase down the Aurora.

Coupled with the above, and also reinforced through associated promotional messages, has been diversification of activities, an established approach to addressing risk (Williams and Balaz, 2015). A range of supplementary activities (e.g. sledding, snowshoeing, Sami cultural activities), are ostensibly offered to enhance the visitor experience, but are primarily distractions to alleviate the clients' long periods of waiting. But such a strategy also has the benefit of adding value to the activity, providing a unique selling point for the operator and potentially growing their income stream. Consequently, diversity of activities is an important theme in the promotional material of many NLT operators.

Our longitudinal approach permitted us to observe differences among the marketing messages of the DMOs and operators and between the two locations, Alta and Tromso, in relation to risk and NLT, and also in how risk has been addressed within this material over the ten-year period of NLT growth. There is a difference between the 'pure' NLT products and those that provide a more diverse range of offerings. The former tended to rely, initially, upon communicating serendipity around NL sightings, but have progressively developed rhetoric around their guides' competencies, dedication and the importance of mobility. Collectively these messages are aimed at promoting trust in the operator. But a somewhat contradictory approach, latterly, employed by some operators, has been to include a disclaimer within their promotional content. While such an approach may reduce transaction costs (and dissatisfaction of the client if they do not see the NL) it may also have the negative consequence of reducing trust (this may be counterbalanced, however, by operators' claims of high success rates).

Linked to three of the themes discussed above (i.e. the expert role of the guide, mobility, and serendipity) some operators, have developed a further approach, the metaphor of the chase or the hunt, to mitigate risk. The emphasis on flexibility, skills and knowledge puts the guide in charge of the hunt, with the tourists depicted as fellow chasers or hunters. In most conceptualisations (e.g. Boksberger and Craig Smith 2006; Williams and Balaz 2015) risk is something that needs to be minimised. In the case of the NLT operators above, it appears that they are adopting a unique strategy of 'embracing' risk through the narrative of 'the hunt'.

The metaphor of the 'hunt' highlights the patient waiting, searching, exploration, watching and chasing involved in NLT. The hunt narrative is also culturally appropriate in a setting (rural Norway) that is renowned for and celebrates the hunt as an important part of life, which in particular shapes rural men's gender identity (Bye, 2003) (many of the owners/guides of NLT are men who often engage in hunting and other types of *friluftsliv* (outdoor recreation)). However, the narrative of the hunt has not only become apparent in the language of this type of tourism in Northern Norway, but has been increasingly used in other NL destinations such as Iceland, Finland, Sweden, Canada and Alaska. Hunting metaphors have thus become a powerful rhetorical strategy for persuading tourists to participate in such a risky product.

Hunting involves teamwork and trust, and in a sense, the use of the chase or hunt narrative is also related to the second firm strategy of trust (Williams and Balaz 2015). However, trust in this sense has mainly been discussed in terms of reducing firm transaction costs through developing trust based relationships with suppliers. We contend that the narrative of the hunt and all this entails, serves to help build a relationship of trust between the firm and the NL tourist (the 'guide' and the 'hunter'), while also acknowledging the risk around the aurora – and simultaneously this risk adds value to the NLT experience through enhancing authenticity (Wang 1999; Hinch and Higham 2001).

7. Conclusion

Risk in supply is inherent in a range of tourism experiences, from Northern Lights Tourism, to whale watching, to getting a good cup of coffee. This study advances our understanding of risk in relation to the supply of tourism experiences based on temporally and/or spatially discontinuous phenomena. Using a framework of risk, the study identifies ways in which such risk has been mitigated by destination managers and by tourism operators, using the case of Northern Lights Tourism in Norway.

For such products, the 'lack of control' (Williams and Balaz 2015) over the experience, in this case the manifestation of the Aurora borealis, a celestial phenomenon, means that there are limited strategies that operators can pursue to address risk in supply. Some 'normal' avenues that firms pursue to reduce risk, such as supply chain risk management, may not apply. Of the four strategies for managing risk identified by Williams and Balaz (2015), knowledge, trust and diversification are identified in this study. Our study has built upon this

work and has identified further strategies to mitigate risk. In particular, the study highlights the importance of rhetorical approaches within the tourism promotional material of DMOs and tourism operators. Collectively these rhetorical approaches seek to replace risk with certainty in the minds of consumers. And while risk is generally seen as troublesome for tourism operators, an alternative and concurrent approach identified in this case, has been their careful embracing of risk through the narrative of the chase or hunt that seeks to bind the tourist and operator in a trusting quest for an authentic tourism experience. In this sense, risk, something that has generally been treated as the bane of the tourism industry, has been reimaged or reconstructed, to the extent that it could now be seen as a positive, desirable (or almost essential) element of the tourism product. A question arises however, about the implicit tension that is generated when tourism operators employ strategies such as this that simultaneously downplay yet celebrate risk for these temporally and/or spatially discontinuous tourism products. How are such messages received and assimilated by tourists?

Future research may seek to explore how risk impacts upon visitor demand and experience, and the extent to which marketing strategies such as those outlined above are effective in mitigating perceptions of risk in the minds of tourists. Also of interest is how tour guides manage the experience of tourists' who have high expectations of sightings, yet are disappointed by their failure to observe an Aurora. Finally, there is a need to monitor the development of northern lights tourism in terms of understanding the impact risk has upon the sustainability of tourism businesses in the destinations.

Acknowledgement:

We would like to thank The Norwegian Research Council for funding UiT – Norwegian Arctic University's research project: WINTER: New turns in Arctic winter tourism. We would also like to thank the reviewers for fruitful comments.

References

Bertella, G. (2013). Photography and northern lights tourism in Tromsø, Norway. *The Northern Review*, 37, 167–186.

Boksberger, P.E. & Craig Smith, S. (2006). Customer value amongst tourists: A conceptual framework and a risk-adjusted model. *Tourism Review*, 61(1), 6-12.

Borch, T., Moilanen, M., Olsen, F., & Rydningen, A. (2006). *Vinterturisme Troms*. Report

No. 05/2006. Tromsø: NORUT Samfunnsforskning AS.

Bye, L. M. (2003). Masculinity and rurality at play in stories about hunting. *Norsk Geografisk Tidsskrift - Norwegian Journal of Geography*, 57(3), 145-153.

Charmaz, C. (2006). Constructing grounded theory: A practical guide through qualitative analysis. Los Angeles: Sage.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, *39*(3), 124-130.

Curtin, S. (2010). What makes for memorable wildlife encounters? Revelations from 'serious' wildlife tourists. *Journal of Ecotourism*, 9(2), 149-168.

Edensor, T. (2010). Aurora Landscapes: Affective Atmospheres of Light and Dark, pp. 227-240. In K. Benediktsson, and K. A. Lund (eds.), *Conversations with Landscapes* Farnham: Ashgate.

Elsrud, T. (2001). Risk creation in travelling: Backpacker adventure narration. *Annals of Tourism Research*, 28(3), 597-617.

Given, L. M., & Saumure, K. (2008). Trustworthiness. In L. M. Given (Ed.), *The Sage encyclopedia of qualitativeresearch methods* (Vol. 2, pp. 895-896). Thousand Oaks, CA: Sage.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report, 8*(4), 597-607

Haugen, I. (2015). Case Tromsø - Hvordan har Tromsø-regionen lyktes med økt vinterturisme? Suksessfaktorer og veien videre, *Snow*15 (May 2015), 5-6.

Heimtun, B. (2015). Tourists' affective perceptions of a old destination: Feelings towards Northern Norway in the winter. *Northern Review*, (40).

Heimtun, B., & Viken, A. (2016). Nordlysturismen - en institusjonell betinget utvikling? In A. Viken (ed.), *Turisme. Destinasjonsutvikling* (175-197). Oslo: Gyldendal.

Hinch, T., & Higham, J. (2001). Sport tourism: a framework for research. *International Journal of Tourism Research*, 3, 45-58.

Knight, F. H. (1921). *Risk, uncertainty and profit*. Boston: Houghton Mifflin.

Knight, J. (2009). Making wildlife viewable: habituation and attraction. *Society and Animals*, 17, 167-184.

Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. Beverly Hills, CA: Sage Publications.

572 Laroche, M., McDougall, J., Bergeron, J., & Yang, Z. (2004). Exploring how intangibility
573 affects perceived risk. *Journal of Service Research*, 6(4), 373–389.
574 Laviolette, P. (2010). *Extreme Landscapes of Leisure. Not a Hap-Hazardous Sport.* London:
575 Ashgate.
576 Mauboussin, M. J. (2007). *More Than You Know: Finding Financial Wisdom in*
577 *Unconventional Places.* New York: Columbia University Press.
578 Olson, D. L., & Dash Wu, D. (2010). A review of enterprise risk management in supply
579 chain. *Kybernetes*, *39*(5), 694-706.
580 Orams. M. (2000). Tourists getting close to whales, is it what whale watching is all about?
581 *Tourism Management*, 21, 561-569.
582 Quintal, V.A., Lee, J.A., & Soutar, G.N. (2010). Risk, uncertainty and the theory of planned
583 behaviour: A tourism example. *Tourism Management*, 31, 797-805.
584 Schreier, M. (2012). *Qualitative Content Analysis in Practice*. London: Sage Publications.
585 Solomon, M.R. (1999). *Consumer behavior*. Upper Saddle River, NJ: Prentice Hall
586 Statistikknett (2014). *Samlede overnattinger fra valgte markeder. Januar-april. 2000-2013*,
587 retrieved May 20, 2014 from
588 http://www.statistikknett.no/reiseliv/analyse/markedsrapport/rapport_marked_alle.aspx.
589 University of Alaska Fairbanks (2015). Aurora FAQ.
590 http://www.gi.alaska.edu/AuroraForecast/faq#where. Accessed 2 June 2016.
591 Valentine, P., Birtles, A., Curmock, M., Arnold, P. & Dunstan, A. (2004). Getting closer to
592 whales- passenger expectations and experiences and the management of swim with mike
593 whale interactions in the Great Barrier Reef. *Tourism Management*, 25, 647-655.
594 Weaver, D. (2011). Celestial Ecotourism: New Horizons in Nature-Based Tourism. *Journal of*
595 *Ecotourism*, 10(1), 38-45.
596 Wang, N. (1999). Rethinking authenticity in tourism experience. *Annals of Tourism Research*,
597 26(2). 349-370.
598 Williams, A. & Balaz, V. (2015). Tourism risk and uncertainty: theoretical reflections.
599 *Journal of Travel Research*, 54(3), 271-287.
600

601
602
603
604
605