

Photography and Northern Lights Tourism in Tromsø, Norway

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Abstract: This study investigates the understanding and use of photography by destination marketing organizations (DMOs) and the tourism providers operating northern lights tours near the city of Tromsø, Norway. The aim is to identify the opportunities and challenges of photography's role in creating the destination image and in creating favourable conditions for tourists' memorable experiences. Secondary data were collected through consulting local newspapers and tourism marketing material, and from the Confederation of Norwegian Enterprise's database. Primary data were collected through interviews with managers of local DMOs and tourism providers, and through observations during two northern lights tours and a seminar for northern lights guides. The findings show that photography is understood as having the potential to contribute to the creation of favourable conditions for experience memorability. The findings also show that tourism actors consider the role of photography to be important for the development of a destination image based on the northern lights as an Arctic icon. This study concludes that the actual use of photography by northern lights tourism actors is limited due to some critical factors including the DMOs' presence in the *mediascape*, and the tourism providers' photography and training skills, local knowledge, and online activity. A graphical model illustrates these factors with respect to the different phases of the northern lights experience.

1. Introduction

The *aurora borealis* (northern lights) has been an object of study as a natural phenomenon and a national icon since the eighteenth century (Friedman, 2010). Although the northern lights have a clear tourist appeal, there have been few contributions on this topic to the tourism literature. Several studies briefly mention the *aurora* as one attraction among the typical tourism attractions in areas of Scandinavia, Greenland, Alaska, and northern Canada (e.g., Milner et al., 2000; Kaae, 2002; Halpern, 2008; Tervo, 2008). In some cases, northern lights tourism is presented as a specialized niche tourist product

(Amoamo and Boyd, 2005; Weaver, 2011). In the European context, it is only recently that the attention of the scholarly community has been directed, sometimes in collaboration with the tourism industry, to the northern lights tourism experience, its meaning, and its strategic development (e.g., Ekeland, 2011; Hifm, 2013).

This study investigates northern lights tourism by focusing on the role of photography in creating favourable conditions for memorable experiences, and in developing an Arctic destination image. The aim is to identify the opportunities and the challenges related to the use of photography. In order to do so, the understanding and use of photography by the destination marketing organizations (DMOs) and the tourism providers operating northern lights tours are investigated. The following questions guided the research:

- How is photography understood and used by tourism actors in the context of northern lights tourism?
- What are the critical factors for exploiting the potential of photography in terms of the tourism experience memorability and the formation of a destination's image?

The selected case study focuses on northern lights tourism in the Tromsø area, in northern Norway. Tromsø is a city located above the Arctic Circle, at 69° latitude, which is in the “northern lights belt”—an oval shaped strip around the North Pole that is particularly favourable for viewing the northern lights due to aurora frequency. Organized northern lights tourism has been present here for approximately two decades, and it had a particularly positive season in 2011-2012. As a result of this recent success, northern lights tourism in Tromsø has started to be on the agenda of the local DMOs.

This article begins with presentation of the theoretical approach adopted in this study and the relevant literature. The approach concerns the northern lights tourism experience as a visual experience. The theoretical framework is based on studies about the role of photography and communication media in relation to the meaning and the memorability of the tourism experience and the formation of destination image. The article then presents the method adopted to investigate the case of Tromsø, followed by the findings and discussion. The findings are also illustrated in a graphical model. The proposed model represents the tourism experience, including the pre-visit and the post-visit phases, and the possible contributions that photography can make in terms of memorability and destination image. The model also outlines the critical factors, and can be adopted to identify possible practical actions.

2. Theoretical Approach and Framework

2.1. Northern Lights Tourism as Visual Experiences

This study is influenced by Urry's conceptualization of tourism as a visual form of consumption (Urry, 1991). Such a conceptualization can be exemplified using the metaphor of the tourist gaze. The term tourist gaze indicates the way tourists look at the world and the way that, ultimately, gives meaning to what they see. Adopting such an approach, the visual aspect of tourism and the visual images of the destinations and the individual attractions are recognized as having a central role in the tourism experience.

Urry's approach has been critiqued by several scholars who argue that it excludes the tourist's intellectual activities, bodily involvement, and the substantial interrelation between the physical and intellectual activities (Veijola and Jokinen, 1994; Crouch, 2000; Perkins and Thorns, 2001; Crouch and Desforges, 2003; Obrador-Pons, 2003; Rakić and Chambers, 2012). Nonetheless, it can be argued that in some cases, such as for this study's focus, an approach that privileges the visual can be particularly suitable.

The form of tourism discussed here is clearly centred on a visual experience—the view of the northern lights. Moreover, this study's focus on photography makes the approach to tourism as a visual consumption particularly appropriate. As observed by Osborne (2000), "the tourist gaze is constructed, experienced and maintained by visual images which remain typically photographic" (p. 83).

In addition to such considerations, today, more than in the past, visual images have a particularly central role in our lives. Due to the ease and accessibility of digital photography, the sources and volume of photographic images have increased enormously together with their "publicness," quality, and quick reproduction and circulation (Franklin, 2001; van House, 2011; Jacobsen and Munar, 2012). Such technological advances have heavily influenced tourism as well as the way photography is and can be used in tourism.

2.2. Photography and Tourism

According to Crouch and Lübbren (2003), since MacCannel suggested that tourists travel to collect images—both objective and material, as photographs; and subjective and immaterial, as visions—several tourism studies have investigated the role of images in tourism. Some of these studies have focused on photography and, more specifically, on the object of the photographic representation; for example, pictures of people belonging to ethnic minorities (Albers and James, 1988; Garlick, 2002) and family

portraits (Haldrup and Larsen, 2003). Other studies have focused on the act of taking pictures. One of the most cited studies about photography in tourism concerns the different spatial, temporal, and social dimensions of the phenomenon of taking pictures during nature-based tours (Markwell, 1997).

This study is based on the idea that the photos have an important role in the tourism experience, and also for the formation of a destination image. In accord with Wing Sun Tung and Ritchie (2011), the standpoint of this study is that tourism actors cannot create memorable experiences. What the providers can do is to create the conditions that support and facilitate the individual tourists in the creation of their own memorable experiences. Recognizing and exploiting the potential of photography in the tourism experience can be viewed as a way to create favourable conditions for tourists' memorable experiences. This study recognizes the important role of photos both independently and in relation to storytelling—an element broadly reported in the literature as central for the memorability of a tourist experience (Moscardo, 2010).

In regard to the role that photography can have for a destination's image, this study understands the term destination image as the mental representation of a destination—the sum of beliefs, ideas, and impressions about a destination and its attributes (Gallarza et al., 2002). Destination-image formation is viewed as a complex process that involves the tourists' perceptual, cognitive, and affective spheres, and is influenced by personal and external factors (Baloglu and McCleary, 1999). This study is focused on photos as external factors, more specifically as visual information sources that can affect a destination image.

2.2.1. The Role of Photography During the Tourism Experience

Although recognizing that different types of tourists are characterized by different attitudes and behaviours toward photography, Chalfen (1979) notes that there is a common tendency among tourists to search for pre-determined images. Urry (1991) argues that marketing images, for example the ones on tourist brochures, link the representation of the destination to the experiences the tourists live when visiting the destination. In this sense, the images to which the tourists are exposed before their actual visit are anticipatory constructions. Such images are used by the tourists as they begin to understand the destination, and these images set the level of expectations—one of the main dimensions of an experience's memorability (Perkins and Thorns, 2001; Wing Sun Tung and Ritchie, 2011). As a consequence, the

activity of sightseeing can be described as an activity of experiencing and making sense of the destination “from page to place” (Moir, 2008: 165).

It has also been noted that tourists understand the images that they see of a destination before visiting as representations of the authentic destination (Moir, 2008). According to this position, and as noted above, tourism can be seen as a search for specific visual images of what is perceived as the authentic destination. Before their holiday, tourists are usually exposed to many images of their chosen destinations and, during their visit, tourists search to re-create this set of photographic images. In this context, the tourist’s satisfaction with an experience can be connected to the possibility of taking pictures and, moreover, to returning home with photos that are similar to the images viewed before the actual visit (Albers and James, 1988).

The exposure to the images and the experience of what these represent are clearly interrelated activities. During their visit, the tourists search for those sights they are familiar with and, ultimately, the photographic images become the very item of tourism consumption (Osborne, 2000). Such an observation is particularly relevant in the case of views related to icons of the tourist destination.

In the post-visit phase, once the holiday is over and the tourists return to their ordinary life, images collected through photography, as well as through the acquisition of postcards, posters, and books, are used to demonstrate to themselves and to those the tourists will share their holiday memories with, that they actually were in such places and had experiences worth remembering (Urry, 1991). Such a recollection phase is also central for the memorability of the experience (Wing Sun Tung and Ritchie, 2011). It has been observed that visual images, especially the photographs taken during the tourism experience, can function as a support in the process through which tourists try to make sense of their holiday individually and, in combination with storytelling, together with co-travellers and/or family and friends (Mossberg, 2008). Photos can function, then, as souvenirs as well as mementos: they are used to concretize and remember the tourism experience, giving to it “an air of authority and finality” (Gordon, 1986).

Some studies have outlined the importance of visual images in the promotion of a tourist destination (Bojanic, 1991; Özdemir, 2010; Vespestad, 2010). Such studies highlight the power of visual images in tourism, especially iconic images, and their possible exploitation by marketers. Based on her study about the iconic images of Australia, and on a previously developed model, Jenkins (2003) proposes a model that describes what she calls a “circle of representation.”

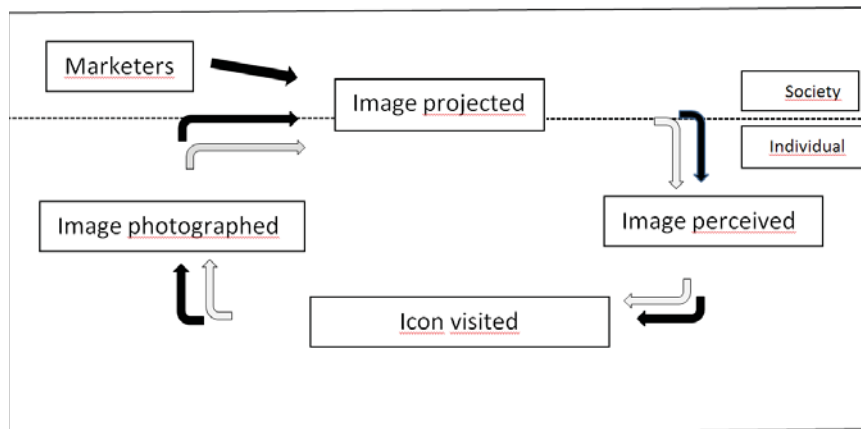


Figure 1. The circle of representation. Adapted from Jenkins (2003).

As presented in figure 1, the visual images of a destination's icon are available in society and are perceived by the individual tourists before the actual holiday. When the icon is visited, photographs are taken and then diffused. Such a process is like a spiral that is constantly fed by new images, distributed by both tourists and marketers, that further contribute to shaping the destination image.

2.3. New Technologies in Photography and Communication Media

The use of new technologies, in particular digital photography and social media, are relevant for a study of northern lights tourism. There has been a proliferation of images in recent years, and such images are only in part produced and diffused by the tourism actors. Using the terminology adopted by Gartner (1993), different agents that produce and diffuse images can be identified: overt and covert induced agents, autonomous agents, and solicited and unsolicited organic agents. The model proposed by Jenkins (2003) and described in figure 1 can now, in 2013, be thought of as an outward spiral fed by numerous digital images produced by many different sources and broadly diffused on the Internet, especially through social media.

As observed by Jansson (2002), Urry had already noted at the beginning of the 1990s that tourism has become image-intensive and more customer-governed than before. The result is a strict connection between the tourist gaze and the consumption of mediated visual images. In this context, the concept of mediascape can be applied. A mediascape is a mediated text that contributes to the creation and diffusion of several visions of the world. As clarified by Jenkins (2003), mediated texts include several types of supports that represent the world, including photographic images. In this study, the

mediascape is understood as a platform where several images of the reality—in this case the *aurora borealis* as an observable phenomenon—are available, with no clear distinction about their source and authenticity. In regard to the different sources, it can be said that induced overt agents (the DMOs) do not have any particular monopoly over the information that circulates. In regard to the authenticity of the diffused images, Jansson (2002) comments: “in contemporary society it has become increasingly difficult to separate ‘representations’ from ‘reality’” (p. 432). As a result, it can be said that the photos of tourism destinations and tourist attractions tend to become the originals against which the real experiences are measured. Wang (1999) refers to this form of authenticity as symbolic and it has clear implications for the two dimensions of memorability identified by Wing Sun Tung and Ritchie (2011) and mentioned above—i.e., expectations and recollection.

New technologies can also have an important role in shaping the tourism experience as an extraordinary experience limited in time and space, separated and in contrast with “everydayness” (Jansson, 2007; Volo, 2009). This aspect can be indicated using the term encapsulation—i.e., the mutual process through which the tourist and the tourism provider follow a sort of script in order to satisfy the tourist’s “desire for spatial separatedness and liminality” (Jansson, 2007: 9). In this sense, photography applied to particularly spectacular natural phenomena can turn a tourism experience into something not only memorable but also extraordinary. From the perspective of the tourist, the act of taking pictures of the northern lights, or posing for them, or being present when such pictures are taken, can be seen as the core of the tourism experience.

3. Method

The following five features guided this study and the findings:

- The use of photos in tourism promotion: To what extent, and how, are photos of the northern lights used by tourism actors in advertising their product?
- The source of the photos: Who takes the photos of northern lights used by the tourism actors?
- The use of the photos during the tourism experience: To what extent, and how, does photography enter the northern lights tourism experience?
- The use of the photos after the tourism experience: To what extent, and how, are northern lights photos used by tourism actors in the post-visit phase?
- The role of the photos according to the tourism actors.

The case of northern lights in Tromsø was investigated through the collection of secondary and primary data during the period between February 2012 and May 2012. Secondary data were collected through consulting local newspapers, Tromsø marketing material, and statistics generated by the Confederation of Norwegian Enterprise (NHO). The secondary data were collected mainly on the first research question—the actual use of the photos in tourism promotion—in order to gain a general understanding of the northern lights tourism in the selected area.

Primary data were collected through interviews and observations (table 1). Three semi-structured interviews were conducted with managers from the local DMOs. One interview was conducted with a manager of Visit Tromsø, the tourist destination marketing organization of Tromsø, and the others with a manager and the coordinator in charge of the visual communication of Northern Norway Hospitality (NordNorsk Reiseliv).

In selecting respondents for interviews with the providers of northern lights tourism products, the focus was on the ten local providers offering northern lights chase tours, which are sightseeing tours on small or big buses (in one case a boat) between late afternoon and early morning. In total, seven people were willing to be interviewed. Five of these were managers of one-person firms, who also worked as guides and drivers.

Three observations were performed. Two observations were conducted while participating on northern lights chase tours—with one of the most experienced northern lights chase tours providers, and with the biggest local tourism tour. The aim of the observations was to gain first-hand experience of northern lights tours, observing the activity of tourists taking pictures. The third observation was performed while participating in a “Northern Lights Guide Course” seminar organized by Profitable Winter Experiences (Lønsomme Vinteropplevelse, LV), a regional project for the development of winter tourism. This observation was performed in order to investigate whether and how tourist photography was considered part of the guide course.

The interviews were based on an interview script, recorded with a dictaphone, and transcribed. The topics discussed during the interviews concerned three main issues: the recent development of northern lights tourism in the local area, the use of pictures in the DMOs’ and the firm’s promotional activities, and the activity of taking pictures during the tours. Observations were recorded in the form of notes, just after the observations in the case of the northern light chase tours, and during the observation in the case of the Northern Lights Guide Course.

Table 1. Interview respondents and observations

| Interviews | | |
|-------------------------------------|----------------------------|---------------------------------------|
| Organization | Role | Number of respondents or observations |
| Tourism providers | manager and guide | 1 |
| | manager, driver, and guide | 5 |
| | guide | 1 |
| Destination Marketing Organizations | manager | 3 |
| Observations | | |
| Northern lights tours | | 2 |
| Tourism providers' meeting | | 1 |

4. Findings

Tourism actors operating in Tromsø have made use of the region's frequent northern lights to entice tourists for approximately two decades, but only recently have more efforts been directed toward their exploitation in order to market Tromsø as an attractive and unique winter destination. As reported by all the respondents during the interviews, two events resulting in international attention on the region have been determinative in increasing those efforts since 2008. The first was a statement by NASA (the US National Aeronautics and Space Administration) about the particularly active northern lights season, followed by their online "Astronomy Picture of the Day" on December 5, 2011, which was a beautiful image of the northern lights in northern Norway (NASA, 2011). The second event was a 2007 documentary filmed by the British Broadcasting Corporation (BBC) entitled "In the Land of the Northern Lights," which was broadcast on British television for the first time in 2008 (Visit Norway, 2013).

NASA's statement and the BBC documentary have directed much attention to northern Norway as a tourist destination and, possibly as a consequence of this, the international press has identified the area as among the best places to view the northern lights. Tromsø has been reported to be the most easily accessible European city that can be used as a base for northern lights tours (CNN Travel, 2012).

An increase in the number of Tromsø hotel stays, and the relative revenue, were documented by the Confederation of Norwegian Enterprises in the winter season 2011-2012. The local press and several of the respondents

commented on this as clearly related to the increased interest in the northern lights.

4.1. The Use of Photos in Tourism Promotion

The catalogue of Northern Norway Hospitality has a two-page photograph of the northern lights in the chapter dedicated to Troms, the municipality of Tromsø. In addition, an entire section of its website is dedicated to the northern lights, with text and pictures including a gallery with several full-screen images of the northern lights. Visit Tromsø uses a photo of the northern lights for both of its 2011-2012 tourist brochures—one is dedicated to the local tourist activities and the other to the town. Several pictures are also used on the Visit Tromsø website, on the home page as well as on the pages where the individual tourism providers are listed. These images are chosen by the individual providers and, in addition to their use through Visit Tromsø, the images are used, together with similar ones, on their business websites.

Many tourism providers use photos of the northern lights. Some of these actors offer products strictly related to northern lights, such as northern lights chase tours, while others offer products less related or not related at all to the northern lights, such as cruises, sport trips in nature, or accommodation.

Photos of the northern lights are broadly used by the local DMOs as well as by the individual tourism providers. The majority of these images are digital and published on the Internet—on the tourism actor's websites and, in some cases, on their Facebook page.

4.2. The Sources of Photos

The pictures used by the DMOs are taken by professional photographers and, in some cases, by some of the organizations' employees who are amateur photographers. In the case of the DMO websites, some pictures are taken by the tourism providers who list their products there.

The pictures that individual tourism providers use on their websites and Facebook pages are, in the vast majority of the cases, taken by the guides themselves. Respondents reported that tourists had occasionally sent their own photographs to their northern lights guide, and the manager had decided to publish them on the Internet.

Thus, there are several sources of the pictures that tourism actors use in their advertising. Such variation is evident from the quality of the pictures—for example, with respect to light contrast, composition, and resolution. The interviews revealed that it is only in a few cases where a considerable

amount of time has been spent by the providers on technically improving the images before posting online.

4.3. Use of Photos During the Tourism Experience

Two providers have a clear emphasis on photography. One of them offers photography workshops and is not exclusively focused on the northern lights. The other provider is one of the local pioneers of northern lights tourism. He has eleven years of experience as a northern lights guide. In 2007 he was employed as a guide during filming of the BBC documentary and, according to him, he is now known locally as *the* northern lights hunter and photographer. His guided tours are profiled as “chase tours” with the goal of finding the best conditions for tourists to take good pictures of the northern lights with the assistance of a professional northern lights photographer.

The interviews and the observations show that there is considerable interest among tourists in taking pictures of northern lights. As a result, the vast majority of northern lights providers have started to include some technical assistance for tourists, with the competence and skills of the guides varying widely. In one case, the provider has become particularly interested in photography and has considerably developed his own photography skills. In another case, the provider offers a new photography service that takes landscape pictures and portraits of individuals or groups with the northern lights in the background. This service is very appreciated by the tourists, as respondents observed during the interviews. This portraits service was developed through the collaboration of an artist and a tourist company and is a particularly innovative product, unique in the local area. Such a collaboration has been particularly positive for the artist (who has recently established his own firm in order to sell the pictures taken by him and the other guides from the same company), for the other guides who have developed their own photographic skills, and also for the company that can attract tourists by offering the opportunity to buy high-quality photos taken during the tours.

Although the value of photography is recognized by all the tourism providers, the extent to which it enters the tourism experience is quite limited in most of the cases. Four providers actively use photography as an important part of the experience they offer. In the other cases, photography is used during the experience only as an additional product, the quality of which depends on the tourists’ competence and skills.

4.4. The Use of Photos After the Tourism Experience

The collaboration between the artist and the tour company mentioned above differs considerably from all the other cases because of the separate company that is dedicated to the online publication and sale of the pictures. As a result, and also because of active Facebook use, this tour company makes a large use of pictures in the post-visit phase. During the interview, the artist, who also works as a guide, showed a particular concern about the post-visit phase. He wondered how the tourists use these pictures; that is, to what extent do they print and hang them on a wall at home or work, share online through email and social media, or use them as screensavers on their computers.

The interviews revealed that the other three tourism providers who have included photography as an important part of their product are also relatively active in using the pictures in the post-visit phase. Two providers use their pictures of the northern lights (whether taken during tours or privately) to document the tours and advertise on websites and Facebook pages. In addition, such pictures are offered for sale online. A third provider acts similarly and is very active on Facebook, with relatively frequent posts and photos of his tours.

4.5. The Role of Photos According to the Tourism Actors

The data from interviews with the three respondents from Visit Tromsø and Northern Norway Hospitality show that the use of northern lights pictures is considered very important for the promotion of Tromsø as a tourism destination. One of the respondents from Northern Norway Hospitality commented how the broad diffusion of such pictures through social media could have been one of the elements that contributed to the recent success of northern lights tourism. The respondent reflected on the possibility that the phenomenon of northern lights tourism could have been largely influenced by the diffusion of relatively high-quality pictures through social media and other sources. He also added that, in his opinion, social media is the most relevant and two kinds of pictures can be the most influential to promote the northern light tourism: the ones representing the northern lights and tourists, and the pictures published by the tourists. In his view, the first type of pictures can be seen as unique souvenirs of extraordinary experiences, while the second type of pictures are characterized by a high degree of reliability and credibility.

The empirical data shows that the vast majority of the tourism providers intend that northern lights pictures, particularly those taken during the

visit, play an important role in the tourism experience. Representative in this sense is the comment by one of the providers who compared taking portraits of tourists with the northern lights in the background to “bringing the northern lights down from the sky, making it accessible (to the tourists).” He suggested that when the tourists return back home from their holidays and look at these pictures they probably feel “privileged to have had such a magical experience.” This aspect was also mentioned by one of the tourism actors who is a photographer. He said that he considers the pictures taken during the tours as a kind of support to help the tourists reflect upon and make sense of their memories of the experience.

Some providers also find that the photos can be an effective way to create positive word-of-mouth marketing and contribute to promoting Tromsø as an attractive winter destination. In this context, the online diffusion of the pictures by the tourists was indicated as particularly important.

The recognized importance of northern lights photos taken during a tourist’s visit was discussed during the “Northern Lights Guide Course.” Several of the actors present expressed concern about their limited photography skills, and agreed on the need to develop some basic skills through a workshop before the next tourist season. This was indicated as very important in order to offer technical support to tourists who want to take pictures of the northern lights.

One provider commented on the role of northern lights photos in regard to realistically representing the phenomenon. According to him, the images, especially those published and circulated online, should not be altered too much, such as showing colours that are not visible with the naked eye. As he said: “the exaggerated use of Photoshop can create great pictures and very unrealistic expectations.”

5. Discussion

Several of the tourism actors understand that the northern lights pictures that they distribute, as well as those circulated by the tourists through the different media, can be seen as “promises” relative to the northern lights experience and the experience of visiting an Arctic destination, and also as standards to which their own experience will be compared. In their work about the memorability of tourism experiences, Wing Sun Tung and Ritchie (2011) underline the importance of delivering promises that are realistic and setting standards that are achievable. Many of the tourism actors interviewed indicated they have reflected on this issue, particularly on the aspects concerning the different sources of the photos, their potentially broad diffusion, and their varying quality.

The tourism actors recognize the existence of different sources of photos of the northern lights. Using the classification presented by Gartner (1993), the image sources explicitly reported by the tourism actors as influential are: overt induced agents (DMOs), organic agents (tourists who actually visited the destination), unsolicited organic agents (tourists not known personally), covert induced agents (tourism journalists), and autonomous agents (documentary journalists and scientists). The presence and influence of so many different agents is particularly important in relation to the destination image formation process (Jenkins, 2003) and the concept of mediascape (Jansson, 2002). As a result, the DMOs do not have any monopoly over the images that contribute to the destination image formation.

The data show that the source of photos reported by tourism actors to be the origin of northern lights tourism success are foreign documentary journalists and scientists from outside Norway (autonomous agents). In addition, all the interviewed actors identify the tourists (organic agents) as the most relevant sources in terms of symbolic authenticity (Wang, 1999). The tourism actors explained that when potential tourists view pictures taken by other tourists who have already visited the destination, they tend to believe that such pictures are not manipulated and represent the northern lights as they could be viewed and captured with their own camera if they visit the same destination.

As presented in the previous section, several of the tourism providers are starting to offer, or have the intention of offering in the near future, more competent assistance to tourists who want to take pictures of the northern lights. The willingness to help tourists take good photos is consistent with the point Osborne (2000) makes with respect to the act of taking photos, and the photos themselves, as the very items of tourism consumption.

The data also show that some tourism providers manage to take good pictures during the tours, and in one case such pictures are personalized in the form of portraits that can contribute to profiling the northern lights experience as a particularly important episode in the tourist's life (Gordon, 1986; Haldrup and Larsen, 2003). Such portraits can also contribute to making explicit the extraordinary profile of the northern lights experience as an encapsulated experience (Jansson, 2007).

The Internet is recognized as the main arena for the distribution of pictures taken by the tourism actors. The data also show that while several tourism actors use online media for their diffusion, few are very active in this regard, and none of them seem to have a clear strategy about it. Using the concept of mediascape (Jansson, 2002), it can be noted that the mediascape relative to the northern lights experience is perceived as a chaotic place

where mental images are created as a result of a myriad of visual images of the aurora.

Another relevant aspect concerns the quality of the northern lights pictures. Only a few providers usually invest time processing the pictures before publication on the Internet. In addition, only one actor commented about the quality of the pictures in the context of the risk of distributing pictures that can be so manipulated so as to promise unachievable results. The latter aspect can have negative effects because, as mentioned before, unachievable promises lead to unrealistic expectations, and to unsatisfactory experiences—in general and, as noted by Moir (2008) and Albers and James (1988), also in relation to the possibility for tourists to take pictures similar to the ones they have been exposed to in the pre-visit phase.

The role of the pictures as souvenirs and mementos is clearly related to the dimension of recollection, identified by Wing Sun Tung and Ritchie (2011) as particularly relevant for memorable experiences. This was commented on by several actors. There is a general understanding of the pictures taken during the tours as artifacts that support and encourage the tourists' recollection process. At the same time, activities like this with the objective of creating unique souvenirs, such as, for example, high-quality portraits of tourists with the northern lights in the background, are limited. In general, the post-experience phase is quite neglected by several providers.

5.1. Model

The model illustrated in figure 2 is developed based on the discussion presented above and on the model of the circle of representations presented in figure 1. The model can be used as a managerial tool for identifying practical actions that can be considered regarding different phases of the tourism experience.

The model illustrates the different phases of the tourism experience and presents the critical factors concerning the role of photography. The visit and the post-visit phases are divided in two (visit phase 1 and 2, post-visit phase 1 and 2). The arrows indicate that the process can be seen as continuously fed by new images. The model includes general considerations that describe each phase. These considerations might apply to other forms of tourism where the visual plays an important role. Comments specifically related to the Tromsø case are also reported (marked with "NLT"), and critical factors and some practical possible actions are indicated.

The mediascape is identified as the main arena where visual images from different sources contribute to the formation of expectations and the

destination image. Two agents are identified as particularly influential in the mediascape: autonomous and organic agents. To stress the contribution that the tourists as organic agents have in the formation of the expectations and the destination image, the reading of the model starts from the post-visit phase that is represented as an integrated part of the mediascape.

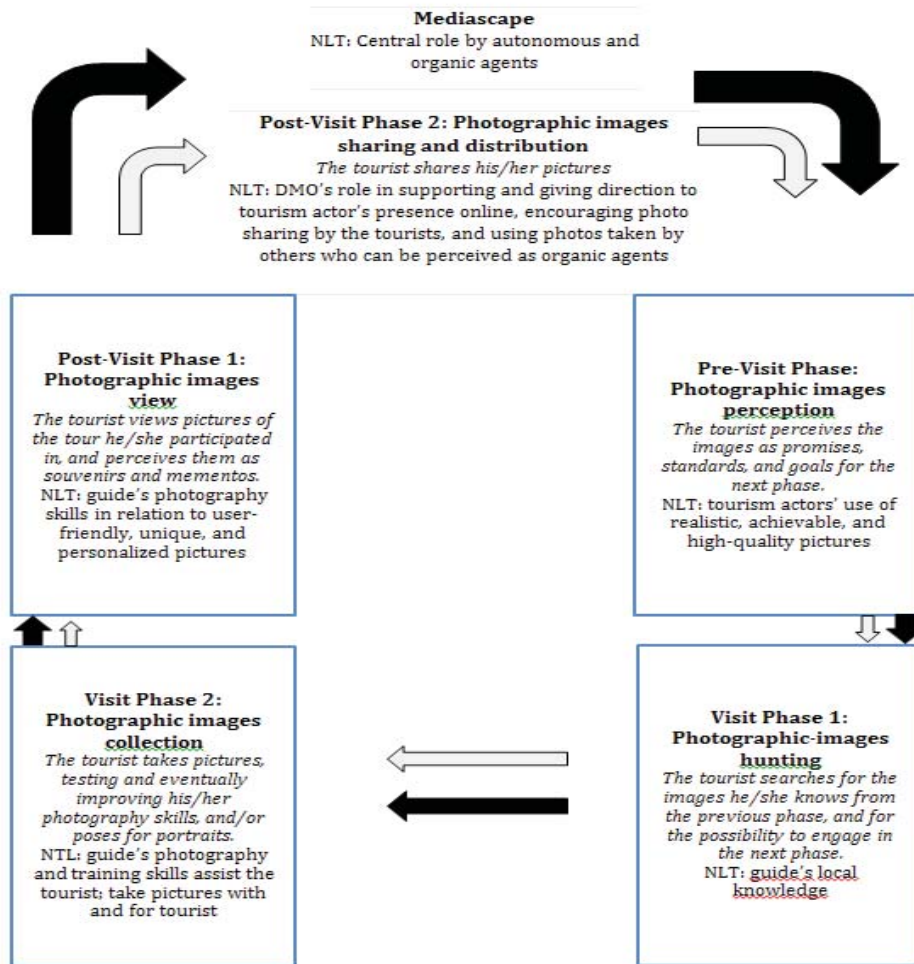


Figure 2. The circle of representation revisited on the basis of the Tromsø case study. "NLT" = Northern Lights Tourism.

The next phases are those related to image hunting, collection, and viewing. In all these phases the critical factors are relative to the skills required by the northern lights guides. Such skills are related to photography, training, and local knowledge. In regard to the first types of skills, tourists rely on the guide to help them take pictures and/or be able to take user-friendly, unique, and personalized pictures. The guide's training skills can be particularly important for those tourists who are interested in practising and developing their own photography skills. In regard to local knowledge, this includes the capacity to find local landscapes that are seen as representative of the Arctic, and familiarity with the local weather patterns in order to find the best viewing conditions.

6. Conclusions

This study contributes to filling the gap concerning an under-investigated form of tourism—the northern lights tourism. The focus is on the role that photography can play in terms of the memorability of the tourism experience and in relation to the development of an Arctic destination image. The understandings and the actual use of photography by the tourism actors of the Tromsø area have been investigated.

The findings show that photography is broadly understood by the tourism actors involved in northern lights tourism as a potentially important resource. The tourism actors believe that photography can contribute to the creation of favourable conditions for memorable experiences and also to the development of a destination image based on the northern lights as an icon of the Arctic.

The majority of the tourism actors view photography as having the potential to enrich the tourism experience. All the interviewed actors recognize the importance that photography can have in the pre-visit phase and also during the visit. Some actors also recognize the relevance of the post-visit phase, both in itself as a valuable support for recollection, and as the phase during which new inputs to potential tourists' expectations and destination image formation become part of the mediascape.

In regard to the use of photography, it can be said that it varies among the providers. Critical factors in this sense are related to the providers' competence, more specifically their skills concerning photography and social media, their training skills, and their local knowledge. Many of these factors are heavily influenced by the micro size of most of the firms and the related constraints especially in terms of time. On the other hand, the local DMOs use photography actively but it seems that an even more active and

strategic role in the mediascape could contribute to influencing, at least to a certain degree, the processes relative to the pre- and post-visit phases in terms of, respectively, expectations and memories, as well as the destination image formation.

This study has viewed the northern lights tourism experience as a visual experience without exploring the active role. The observations have revealed how a tourism experience that is centred on the viewing of a natural phenomenon can be particularly engaging. Such data have shown that the tourists are active in taking the pictures (or posing for them) and distributing them. In order to explore this active role, future studies could be focused on the tourists as photographers—their motivations, the meanings they attach to the act of photography, and the practical aspects concerning the quality of the pictures and their possible manipulation, use, and distribution.

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