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A study of possibility to make tourism more sustainable in Hokkaido



Yukari Higuchi

Division of Environmental Science Development
Graduate School of Environmental Science
Hokkaido University

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北海道における観光をより持続可能にする実現性に関する研究

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樋口 ゆかり

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Chapter 1 General Introduction

1.1 Making tourism more sustainable

The concept of sustainable tourism was created in Germany in the 1970s as ‘Soft Tourism seeking for a change in lifestyle and behavior’ by thinkers and academic researchers, not by the tourism industry or governments, and then, spread across the wider world (Müller & Lane, 2003). The advocates of this concept tried to introduce ethics, long termism, social responsibility, and researcher-led evaluation into tourism. This movement later penetrated into various forms of tourism. The Journal of Sustainable Tourism, a leading global academic journal launched in 1993, now covers a variety of types of tourism that has the direction towards sustainability: for example, nature-based tourism, food tourism, farm tourism, geotourism, ecotourism, ski tourism, indigenous tourism, heritage-tourism, rural tourism, etc. Under these current international circumstances, what do ‘sustainable tourism’ and ‘making tourism more sustainable’ specifically mean? According to the guideline issued by UNEP and UNWTO in 2005, sustainable tourism is defined as ‘tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities,’ and ‘making tourism more sustainable’ means taking these impacts and needs into account in the planning, development, and operation of tourism.

Through the influence of the Zeitgeist, the concept of sustainable tourism has further changed and grown. According to the most updated understanding of Moscardo (2008 & 2014) who is the Chair of Building Excellence in Sustainable Tourism Education Network, sustainable tourism is considered as an adaptive paradigm that can provide a possible developmental option based on the specific terroir in a region. She argues that, if we begin with the assumption that tourism cannot be sustainable in its own right but may contribute to the sustainable development of some regions under some circumstances, then a number of new approaches to tourism development emerge. She also points out that stronger links may emerge between tourism and other economic activities and development options. UNWTO (2017) declared that this year of 2017 is ‘the International Year of Sustainable Tourism.’ In its roadmap, sustainable tourism is described as a catalyst or tool to contribute to achieving ‘Sustainable Development Goals.’

This paper explores a way to make Hokkaido tourism more sustainable, focusing on its

nature-based tourism and food tourism since these two sectors are important components of Hokkaido's revitalization. In making tourism more sustainable, Lane (2009) mentions the relation between a global movement and a local change as follows:

“All long journeys begin with first steps. The world and its peoples cannot change in just a few years. Change comes first from small projects, (and we should learn from their mistakes as well as successes). There is a time scale. There is also a geographic scale. One size rarely fits all. It is important to recognize the different scales at which sustainable tourism can operate: local, regional, national, continental, and global scales, scales of rising difficulty. Small may be beautiful because it can be manageable. And it is also usually at the local scale that some of the most immediately damaging impacts from tourism take place. Do not forget the global however.”

Through researching the local scale of projects in Hokkaido tourism, this paper aims to achieve a globally applicable way to make tourism more sustainable towards regional regeneration.

1.2 The key to promoting sustainable tourism

The roadmap of UNWTO (2017) emphasizes that the keys to promoting sustainable tourism are knowledge creation and dissemination, the establishment of a mechanism for monitoring and measuring, and capacity building and education. Bertella (2011) argues that the first thing to do towards sustainable tourism is to identify what kind of knowledge is required based on the specific terroir in a region. Both arguments encourage innovation challenging existing assumptions and ways of thinking, which would consequently result in the change of lifestyle and behavioral intention.

Lane (2009) and Thomas (2012) strongly stress the vital need that academic researchers positively get involved in these knowledge-related tasks through collaboration with the tourism practitioners because the researchers are professionals well trained in analyzing, criticizing, putting forward new ideas, and suggesting a change. They also emphasize that academics researchers and thinkers originally produced the concept of sustainable tourism, and, therefore, these producers should foster the concept, polish the skills and techniques, and communicate them to stakeholders (Thomas, 2012; Lane, 2009).

1.3 Poor linkage between universities and the tourism industry

Academic researchers are expected to play a growing role in supporting the development and innovation of tourism businesses, as governments attach great importance to knowledge transfer towards the knowledge economy (Yusuf, 2008). However, Lane (2009) laments the lack of partnership in sustainable tourism development between academic researchers and tourism practitioners. Looking at the researchers, most of them have kept being outsiders, not understanding the pressures and the drivers within the tourism industry, nor how to work with the industry (Lane, 2009). In addition, the few studies that have empirically examined the relationship between innovation and knowledge transfer have not focused on universities because they were not important sources of knowledge for tourism practitioners (Thomas, 2012; Aldebert et al., 2011; Weidenfeld et al., 2010).

Preceding literatures describe that tourism practitioners underutilize academic research (e.g. Xiao & Smith, 2010; Ruhanen, 2008; Tribe, 2006; Cooper, 2006; Stamboulis & Skayannis, 2003). This is partly due to the poor linkages between academic researchers and tourism practitioners, coupled with a lack of understanding about each other's expertise, culture, and norm (Thomas, 2012; Cooper, 2006). According to Xiao and Smith (2010), academic researchers and tourism practitioners reside in two culturally different worlds, and in this perspective, the knowledge transfer / use is often considered as a barrier-overcoming process. As a result of this barrier, tourism has not been planned or operated holistically. It has tended to operate on a short-term growth and decline cycle and retain its profits in visitor source market areas rather than in destination areas. It has been rarely used as a tool for conservation or for sustainable development. As for the society, it seems that the general public has not understood the need for sustainable development of most kinds including tourism. Therefore, although sustainable tourism needs behavioral change by all stakeholders including visitors, this transform seems very hard to bring about (Lane, 2009). The barrier-overcoming process urgently needs to be thoroughly explored through more empirical work in order to secure benefits accruable from the linkages between universities and the tourism industry (Shaw & Williams, 2009).

1.4 The overview of recent Hokkaido tourism

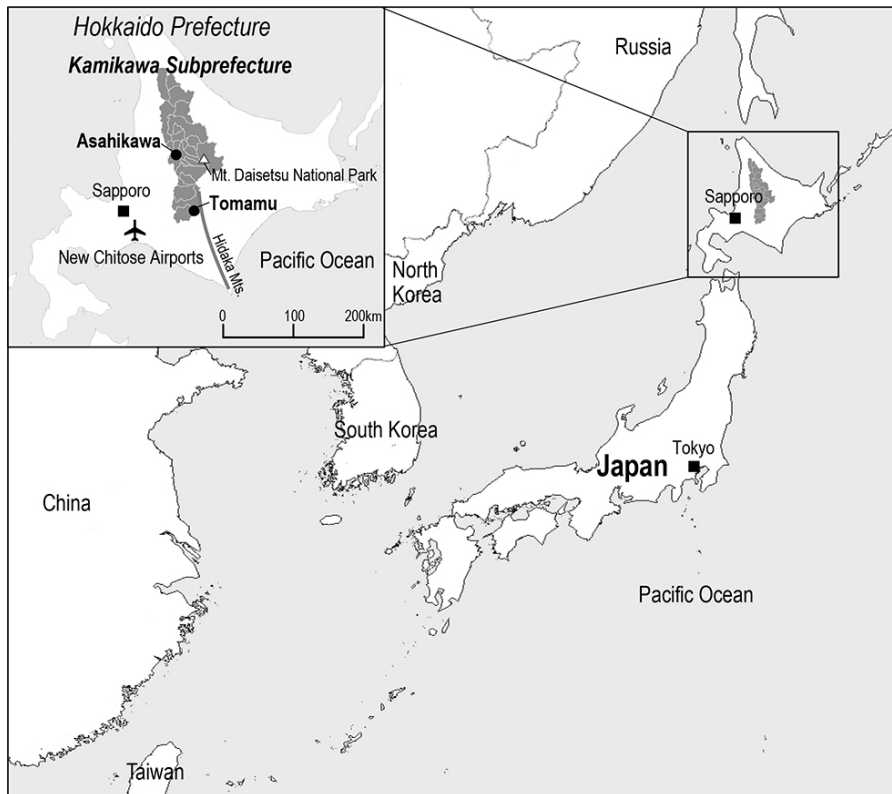


Figure 1. Locations of the Tomamu destination and the Kamikawa destination in relation to the Japanese Archipelago and Hokkaido region. Source: the author.

Hokkaido is the largest and northernmost prefecture in Japan. Thanks to abundant food production and a rich natural environment, Hokkaido has consistently been one of the top destinations in Japan for both domestic and international tourists (ITmed, 2016; Japan-guide.com, 2016). Japan International Cooperation Agency (JICA, 2017) reported about the overview of recent Hokkaido tourism in March 2017: since around 2012, the number of international tourists to visit Hokkaido has been rapidly increasing at the rate of 17% to 30% annually, in contrast to that the number of domestic tourists has been gradually decreasing since 2000 (Ministry of Land, Infrastructure and Transport, 2016). The driving forces of this rapid increase of international tourists are resort tourism and urban tourism sectors. On the other hand, the hot spring towns and villages that used to be the main attractions of Hokkaido's wide sightseeing tour are stuck in a long slump (Hokkaido Government, 2016). There seems to be a gap in perception between the supply-side and the demand-side with regard to tourism products and services (JICA, 2017).

Another recent trend of Hokkaido tourism is the increasing number of tourists who seek for

watching wildness and tasting distinctive Hokkaido-made food (JICA, 2017). This increase is parallel to the increase in the number of independent travelers and the increase in the number of getting a rent-a-car (Hokkaido Bureau of Economy, Trade and Industry, 2015). Reflecting this trend, international tourists are witnessed in some very rural areas where local people have hardly ever seen overseas people before: for example, in small harvest festivals for local people, or remote depopulated villages good for bird watching. Some leading destinations have quickly paid attention to such trend and created events and activities unique to the regions, such as the construction of facilities for wildness watching, outdoor sports, and farm experience. However, the majority of destinations in Hokkaido are still struggling against the winter decreases in the tourist number, shortages of human resources, low profitability, the slow building of collaboration across sectors, and poor English command (JICA, 2017). Above all, they do not have a knowledge source required to build an effective strategy. Local municipal governments have tried to help them access the outside knowledge sources. However, such an attempt has not yet succeeded in leading local tourism stakeholders to implement continual knowledge absorption that is required for sustainable development (Higuchi & Yamanaka, 2017b).

1.5 The objectives of this study

1.5.1 The objectives of this study

This study presents specific examples of what kind of roles academic researchers played in co-creation practices with tourism stakeholders. The aim is to argue that co-creation can serve as a powerful mode of societal engagement for tying the innovative and knowledge producing potential of the university to societal needs, particularly in the context of sustainability. By detailing the academic researchers' commitment to making tourism more sustainable, this study endeavors to articulate:

1. how knowledge sharing and trust building were achievable between academic researchers and tourism practitioners (Chapter 2: in the relationship between Graduate School of Environmental Science, Hokkaido University (GSES) and Hoshino Resort Tomamu (HRT)),
2. how knowledge needs analysis was successfully conducted with small business owners in food-tourism (Chapter 3: in the relationship between the stakeholders of the Kamikawa food tourism and GSES), and
3. what the measurement of destination images indicates and how important it is to

judge the appropriateness of the direction in developing tourism (Chapter 4: in the same relationship as the one of Chapter 3).

1.5.2 The reasons to cover nature-based tourism, food tourism, and a primary source market of Hokkaido tourism

Nature-based tourism (NBT)

Chapter 2 of this study covers NBT. The local stakeholders have long considered NBT as the most attractive and important component of Hokkaido tourism (JICA, 2017). Indeed, many tourists have been attracted by Hokkaido's natural attraction including beautiful sceneries of farmland and the rich natural environment, hot spring facilities adjacent to mountains or beaches, and out-door-sport facilities. Therefore, when trying to make Hokkaido's tourism more sustainable, its NBT is one of the first sectors to take account into. In addition, given that the sustainability of Hokkaido's NBT sector would be enhanced if academic researchers got involved in its practice, the process will have to be articulated. These are the reason that NBT became one of the research themes of this study.

Food tourism (FT)

Chapter 3 takes up Hokkaido's FT as the research theme. In terms of agricultural output, the total size of farmland, and the total fish catch, Hokkaido ranks the top of all prefectures in Japan, and thus, the culture including the scenery that Hokkaido's food and food production have created is one of the most important attribute of Hokkaido tourism (Shimizu, 2016). Because of its rich diversity, Hokkaido-made food including dairy products, sweets, fruits, vegetables, noodles, and seafood has attracted many visitors. Thus, when trying to make Hokkaido's tourism more sustainable, its FT, just like its NBT, is one of the first sectors to consider. Some FT stakeholders in Hokkaido have started a network activity to increase a competitive advantage, although the networking is quite sporadic. To make this germination of FT development more sustainable, what should academic researchers provide the local stakeholders with? This study endeavors to answer this question.

Hong Kong, one of primary source markets

Chapter 4 particularly takes up Hong Kong as the primary source market to measure

destination images of Japan and Hokkaido. For the last decade, it has been the common belief among Hokkaido people that vitalizing tourism and boosting the regional economy is indispensable to solve the problems of economic shrinkage resulting from depopulation. To achieve this purpose, they are encouraged to include as many wealthy international tourists as possible into their businesses because the number of the domestic tourists has been declining since 2000. In addition, Hokkaido tourism now focuses on increasing the expenditure per visitor rather than the total number of visitors. Fortunately, the number of international tourists to Hokkaido has been annually increasing at the high rate such as 17% to 30% for the last five years. Especially, the increase of visitors from neighboring Asian countries is remarkable (Hokkaido Government, 2016).

Although Hong Kong is the third biggest origin market to visit Hokkaido (No. 1 is the mainland of China and No. 2 is Taiwan) in terms of a total number of nights to stay, this cosmopolitan city has two advantages for researchers to conduct sampling. Firstly, it is relatively easy for researchers to cover different social layers of people including wealthy people, when distributing questionnaires and conducting a survey since over seven million people densely live within the small urban areas including Kowloon Peninsula and Hong Kong Island (Wikipedia). Secondly, many of Asian wealthy people, including ‘hua ch’iao 華僑’ who have significant influence over Chinese societies in Asia, set up bases in Hong Kong. This is because, as one of the world's leading international financial centers, Hong Kong has a major capitalist service economy characterized by low taxation and free trade, and therefore, it is an important center for international finance and trade, with one of the greatest concentrations of corporate headquarters in the Asia-Pacific region (Coispeau, 2016). There is a clear difference in the way of traveling between Hong Kong people and the other Asian people. Hong Kong people more tend to travel independently and stay longer (Hokkaido Bureau of Economy, Trade and Industry, 2015). Thus, it is expected that they spend more money at local hotels, restaurants, and shops than the other Asian tourists. Further understanding their attitudes toward traveling through research would lead to providing Hokkaido tourism stakeholders with more business opportunities that could raise profitability. These are the reasons that Chapter 4 covers Hong Kong to measure the destination images of Japan and Hokkaido.

References:

- Aldebert, B., Dang, R. J., & Longhi, C. (2011). Innovation in the tourism industry: The case of Tourism@. *Tourism Management*, 32(5), 1204-1213.
- Bertella, G. (2011). Knowledge in Food Tourism: The Case of Lofoten and Maremma Toscana. *Current Issue in Tourism*, 14, 355-371.
- Coispeau, O. (2016). Finance Masters: A Brief History of International Financial Centers in the Last Millennium. Hong Kong: World Scientific.
- Cooper, C. (2006). Knowledge management and tourism. *Annals of Tourism Research*, 33(1), 47-64.
- Higuchi, Y., & Yamanaka, Y. (2017b). Collaborative knowledge production development and action design between university researchers and local stakeholders in food tourism: a study of the practical value of tacit knowledge sharing. *BEST EN Think Tank XVII 2017 Proceedings*.
- Hokkaido Government. (2016). Tourism Statistics. Retrieved 30 June 2017 from <http://www.pref.hokkaido.lg.jp/kz/kkd/irikominosuii.htm>.
- JICA (Japan International Cooperation Agency). (2017). *Report on the Overview of Recent Hokkaido Tourism*. Retrieved 30 June 2017 from https://www.jica.go.jp/sapporo/enterprise/survey/ku57pq00000epj5a-att/Regional&Industrial-Promotion-Study_2016_ja.pdf.
- Lane, B. (2009). 30 years of Sustainable Tourism: Drivers, Progress, Problems - and the Future, pages 19-32 in S. Gössling, M.C. Hall, S. Page, & D. Weaver, *Sustainable Tourism Futures: Perspectives on Systems, Restructuring and Innovations*. London: Routledge.
- Ministry of Land, Infrastructure and Transport. (2016). *White Paper of Tourism*. Retrieved 30 June 2017 from <http://www.mlit.go.jp/statistics/file000008.html>.

- Moscardo, G. (2008). Sustainable tourism innovation: Challenging basic assumptions. *Tourism and Hospitality Research*, 8(1), 4-13.
- Moscardo, G. (2014). There Is No Such Thing as Sustainable Tourism: Re-Conceptualizing Tourism as a Tool for Sustainability. *Sustainability*, 6, 2538-2561.
- Ruhanen, L. (2008). Progressing the sustainability debate: a knowledge management approach to sustainable tourism planning. *Current Issue in Tourism*, 11(5), 429-455.
- Shaw, G., & Williams, A. (2009). Knowledge transfer and management in tourism organizations: an emerging research agenda. *Tourism Management*, 30(3), 325-335.
- Shimizu, T. (2016). Analytical technique and challenges relating to data of tourism mobility. Retrieved 30 June 2017 from <http://www.hkd.meti.go.jp/hoksr/20170201/niseko2.pdf>
- Stamboulis, Y., & Skayannis, P. (2003). Innovation strategies and technology for experience-based tourism. *Tourism Management*, 24(1), 35-43.
- Thomas, R. (2012). Business elites, universities and knowledge transfer in tourism. *Tourism Management*, 33, 553-561.
- Tribe, J. (2006). The truth about tourism. *Annals of Tourism Research*, 33(2), 369-381.
- UNEP & UNWTO (United Nations Environment Programme and World Tourism Organization). (2005). *Making Tourism More Sustainable*. Retrieved 30 June 2017 from <http://www.e-unwto.org/doi/book/10.18111/9789284408214>
- UNWTO (United Nations World Tourism Organization). (2017). 2017 International Year of Sustainable Tourism for Development. *A Roadmap for Celebrating Together*. Retrieved 30 June 2017 from <http://www.tourism4development2017.org/>
- Weidenfeld, A., Williams, A. M., & Butler, R. W. (2010). Knowledge transfer and innovation among attractions. *Annals of Tourism Research*, 37(3), 604-626.

Wikipedia: Hong Kong. Retrieved 30 June 2017 from https://en.wikipedia.org/wiki/Hong_Kong.

Xiao, H., & Smith, S. L. J. (2010). Professional communication in an applied tourism research community. *Tourism Management*, 31(3), 402-411.

Yusuf, S. (2008). Intermediating knowledge exchange between universities and businesses. *Research Policy*, 37(8), 1167-1174.

Chapter 2 Knowledge sharing between academic researchers and tourism practitioners: a Japanese study of the practical value of embeddedness, trust and co-creation.

2.1 Introduction

There is a substantial body of literature that depicts nature-based tourism (NBT) as a mutually beneficial relationship between tourists, tour companies, and local communities (*e.g.* Higham, 2007; Honey, 2008; Stronza & Durham, 2008). So far, however, little has been written about the potentially important role that academic researchers can make this win-win scenario more enduring (Hoarau & Kline, 2014), except studies of wildlife- (Rodger et al., 2010) and geo-tourism that emphasize network activities that include researchers (*e.g.* Farsani et al., 2014).

This chapter reports on the long-term involvement of academic researchers in value co-creation – adding a new value to the tourist experience jointly – with tourism practitioners, which encourages significant and innovative NBT outcomes. The author monitored the development of the relationship between the Graduate School of Environmental Science (GSES) at Hokkaido University and Hoshino Resorts Tomamu (HRT) from 2011 to 2015. Hoshino Resorts is a major international Japan based owner and operator of inns and resorts, quoted on the Tokyo Stock Market (see: <http://www.hoshinoresorts.com/en/aboutus/>). The “Innovation through Co-creation” model proposed by Hoarau and Kline (2014) is used as a theoretical and methodological lens for analysis. This chapter articulates how knowledge sharing was achievable between GSES and HRT, focusing on the importance of tacit knowledge sharing and embeddedness. This offers insight about how researchers and tourism practitioners may foster partnerships or network activities to grow NBT in the future.

The work reported on in this chapter is especially interesting because it involved a large and experienced tourism resort company. There have been many cases of researchers working with small rural tourism organizations, and rural communities. Idziak, Majewski and Zmysłony, (2015) described and appraised how they worked with a series of small rural communities in Poland, all new to tourism, over a five-year period. In 2009, Koutsouris assessed the issues he found in assisting contrasting rural communities developing ecotourism in Greece. Okazaki (2008), working in Japan, set out a model of community participation in sustainable rural tourism development. But all these studies looked at

inexperienced and small-scale developments. The majority of tourism activities take place in large-scale situations, often owned by major development companies, or professional tour or resort operators. Studies of that co-operation with that type of business are unknown in tourism. Lane (2009) lamented the lack of partnership in sustainable tourism development between the tourism industry and academic social scientists: “Sustainable tourism originated through commentators, critics and thinkers – not through the industry” (p.26). The research reported here reveals ways of developing industry / academia partnerships with great potential to create more effective sustainable tourism.

2.2 Theoretical background

2.2.1 NBT and scientific knowledge

NBT has been the fastest growing tourism sector over the past two decades (Bell et al., 2008), and approximately 10–20% of all international travel is related to nature-based experiences (UNEP, 2011). To effectively develop and manage this rapid growth, scientific knowledge is essential. By including scientific knowledge in interpretative programs and materials for tourists, practitioners can justify and lend credibility to their decision-making (Rodger and Moore, 2004).

Previous research indicates that many NB tourists are sympathetic to environmental issues and are eager to learn (*e.g.* Wight, 2001). They are more satisfied with their tourism experiences when these are infused with educational messages (Orams, 1997). In support of these arguments, interpretation and education-related components of the tourism experiences have received considerable attention from tourism researchers (Ardoin et al., 2015). These studies reinforce the needs for more and higher quality environmental interpretation (*e.g.* Dearden et al., 2007; Higham & Carr, 2002; Mayes & Richins, 2009; Powell & Ham, 2008; Stamatou et al., 2007). Thus, the practitioners should encourage cooperation with researchers, especially in the natural sciences, who are knowledge providers (Rodger and Moore, 2010); however, knowledge sharing between these two groups is not without complication.

2.2.2 Difficulties in knowledge sharing

For the practitioners and researchers to effectively develop NBT, it is essential to understand, reflect on, and manage – to the extent possible – how science should be practiced and what

makes it succeed and fail (Rodger and Moore, 2009). Academic researchers must also understand the knowledge requirement from the practitioners based on minute knowledge need analysis before implementing a scientific program (Pyo, 2012). However, these two parties have different paradigmatic positions and normative beliefs, and thus differences of opinion about research practice and success (Patterson & Williams, 1998).

Paradigms and norms are tacit knowledge (Polanyi, 1966), and many researchers indicate that tacit knowledge transfer is difficult (e.g. Cavusgil, et al., 2003; Nonaka & Takeuchi, 1995). Tacit knowledge is knowledge that we have, and know we have, but nonetheless cannot easily be put into words (Polanyi, 2002, p.60). This can be alleviated by codifying the tacit into the explicit (McInerney, 2002; Boisot, 1998; Nonaka & Takeuchi, 1995); however, this codifying process often fails to include the essence of the tacit – such as experiences, values, or professional inference – which are considered integral components of knowledge context. Consequently, it inhibits optimal knowledge absorption by the recipient when knowledge transfer is accompanied by such an incomplete context (Zack, 1999).

Furthermore, the current tourism industry environment is not conducive to integrating new scientific knowledge. Tourism is dominated by small enterprises that can face financial hardship due to their fragmentation across a variety of activities, despite having limited budgets. There are also vocational reinforcers, such as poor human-resource practices, which further inhibit knowledge absorption (e.g. Cooper, 2014; Xiao & Smith, 2010; Shaw & Williams, 2009; Ruhanen, 2008). Thus, a lack of trust between the knowledge creators [scientists / researchers] and the users [tourism practitioners] occurs, due to their divergent cultures and vocabularies (Hjalager, 2002). This failure to build a relationship based on mutual trust impedes knowledge sharing (Levin & Cross, 2004). Hoarau and Kline (2014) argue that co-creational practices towards innovation might be able to solve this problem, if the scientist (e.g. a marine biologist) pursues scientific knowledge creation activities while interacting with members of tourism industry. However, to make this co-creational relationship more sustainable, other factors might be necessary.

2.2.3 Benefits of embeddedness

Benefits accrued from embeddedness occupy an important role in knowledge sharing between researchers and practitioners. Embeddedness is a social exchange system with unique opportunities relative to markets. Firms with embedded relationships have a higher

chance of survival than firms with arm's length market relationships (Shin et al., 2015; Ratajczak-Mrozek, 2014). In this embedded relationship, trust acts as a governance mechanism by facilitating the extension of benefits to transacting partners, and inviting the receiving party to reciprocate when an appropriate situation arises (Morales, 2005). Embedded relationships tend to be long-term, entail mutual risk sharing, mutual gain/loss possibilities, and respect and understanding of both sides' requirements. Once the embedded relationship is established, information transfer becomes more voluntary, fine-grained, tacit, and holistic whilst joint problem-solving arrangements (or attitudes) are strengthened (Koskinen et al., 2003; Uzzi, 1997). Actors will cultivate long-term cooperative ties rather than narrowly pursue self-interest (Morales, 2005). Since there are things exchanged that cannot be easily priced with a cash value, embeddedness has great potential to bring an outcome that exceeds the monetary projections made by neoclassical, game, and transaction-cost economic theories. This bolsters firms' chances of survival and creates win-win situations (Uzzi, 1996).

Embeddedness results from frequent and close interaction. The supply-side of the resultant knowledge transfer from this coupling is invested in ensuring that the recipient understands and utilizes the knowledge. This fosters an atmosphere of mutual trust between the exchanging parties, and heightens the recipient's trust in the supply-side's abilities and their good-faith. The trust in good-faith, especially, encourages the recipient to more accurately disclose the current level of his/her understanding (Gohoshal, 1994). This feedback enables the supply-side to better prepare for the subsequent knowledge transfer (Bresman et al., 1999). The development of embeddedness conclusively contributes to overcoming communication barriers and paradigmatic differences between academic researchers and tourism practitioners.

2.3 Description of the case study subjects



Figure 1. Magnificent vista of unkai (the sea of clouds) from the Unkai Terrace.
Source: the author.

A sea of clouds (*unkai* in Japanese) is a meteorological phenomenon where a blanket of clouds with a relatively flat top forms with undulations of differing lengths resembling waves. This phenomenon generally occurs in valleys or over the ocean during times of stable air mass conditions such as in a temperature inversion. The sea of clouds view from the Unkai Terrace in Tomamu is particularly spectacular when a vast mass of clouds originating from the Pacific Ocean flow into the Tomamu valley from the Hidaka Mountains. This type of sea of clouds event has been likened to the Niagara Falls of the sky.

2.3.1 Unkai Terrace in Tomamu

The stage for this case example is the ‘Unkai’ Terrace (Fig. 1(a)) a tourism site currently managed by HRT. The Tomamu destination (Fig. 1(b)), of which Unkai Terrace is a part, is a year-round resort surrounded by the Hidaka Mountains in the middle of Hokkaido, Japan. It is two hours by car from both Sapporo, the capital city of Hokkaido, and New Chitose International Airport. The Unkai Terrace, which has an outdoor café, is located near the top of Tomamu Mountain at 1,239 meters high. It takes only 13 minutes by gondola to travel from the hotel at the base of the mountain to the site. During early summer mornings, people may witness the spectacular phenomenon known as a sea of clouds (*unkai* in Japanese) illuminated by the sun’s glow whilst enjoying a cup of tea on an open-air terrace. During the

peak of summer season, the Unkai Terrace receives 2,000 visitors per day. Since its opening in 2005, visitor numbers have steadily increased, and now exceed 130,000 per year. The magnificent view from the Unkai Terrace – especially the view of the sea of clouds originating from the Pacific-Ocean – has become a primary attraction for Tomamu tourism in the green season, and is introduced to potential customers through various media channels (HRT, 2016).

HRT faced an urgent need to enhance the visitor experience during the sea-of-clouds-watching tour. The phenomenon is natural and therefore uncontrollable and not necessarily predictable. The estimated probability that visitors will see the sea of clouds is only about 40%. In the particular case of the sea of clouds which originates from the Pacific Ocean (a key marketing image regularly used in travel magazines), the odds of a successful viewing drop to 20%. In short, many visitors will not see the beautiful view of sea of clouds during their visit, despite coming all the way to the Unkai Terrace to do so (Furukawa et al., 2013). HRT had been ill-equipped to deal with the numerous complaints from those visitors who were dissatisfied by their experience for this reason, and faced an urgent need to improve visitor satisfaction regardless of the meteorological conditions.

2.3.2 Graduate School of Environmental Science (GSES)

GSES that has been involved in co-creational practices at the Unkai Terrace since 2010 is a graduate school specialized in addressing environmental issues through a variety of scientific disciplines. The graduate school, one of the first schools of its kind in Japan, was established by Hokkaido University in 1977. GSES has further enhanced scientific literacy and pro-environmental attitude amongst the local citizenry by transferring scientific knowledge to the public through outreach activities. Faculty members and students have employed a variety of outreach tactics, and have collectively honed their knowledge sharing processes by networking with practitioners in, for example, the City of Sapporo, the Hokkaido Coca-Cola Bottling Co., Ltd., and local environmental professionals. GSES researchers have been involved in a variety of co-creational practices with tourism stakeholders in several regions of Hokkaido, which has resulted in a deeper understanding of the current tourism industry.

Although the department is still characterized by disciplinary basic research in environmental sciences, some faculty members have enhanced the multidisciplinary networking, breaking with tradition to forge partnerships with off-campus organizations and enterprises. By

organizing a variety of cross-industry exchange programs, they have fostered a proactive and barrier-eliminating attitude between business practitioners and academic researchers (GSES, 2016).

2.3.3 HRT of Hoshino Resorts

HRT's parent company, Hoshino Resorts, is one of the leading tourism organizations in Japan, operating more than forty resort facilities domestically and abroad. Yoshiharu Hoshino, the current CEO of Hoshino Resorts, succeeded in restructuring operations two decades ago. Utilizing the lessons learned during the restructuring, Hoshino and its staff have repositioned failed tourism enterprises in various regions throughout Japan. Tomamu resort was opened as a ski resort in 1983, turning its famous and plentiful powder snow into a valuable tourist resource. Hoshino Resorts became the facility operator in 2004, and Tomamu resort was reborn as HRT. The Tomamu destination owes its rebirth to the corporate culture of Hoshino Resorts that emphasizes openness and uniqueness. Hoshino encouraged HRT staff members to generate unique ideas that would enhance visitor experience in the green season. HRT gondola staff sparked the idea that the sea of clouds view seen each day at work could be capitalized on as a key tourist attraction. Hoshino immediately accepted this idea because he knew the importance of visual impact that beautiful scenery has on potential customers. This resulted in opening the Unkai Terrace that is the best location for watching the magnificent view (Nakazawa, 2009).

2.4 Study Methods

Data collection methods

The case study was carried out from 2011 to 2015. The primary field data collection was ongoing semi-structured interviewing with GSES researchers, the graduate students, HRT manager, and the staff members. Participant observation of shared practices between GSES and HRT formed another element of data collection, with the author's observation documented in a personal journal. Also, reviewing these two organizations' public reports and websites was helpful for making interview questions. In addition, international literature on knowledge transfer, environmental interpretation, geo-parks, sustainable tourism, and social capital including embedded relationship was widely consulted.

Sample respondents

The author conducted interviews periodically through face-to-face meetings, telephone, or e-mail, during the course of study. The interviews focused on 15 key sample respondents who were selected based on the following conditions: frequent or a long-term presence at the interface of the co-creation practices between GSES and HRT during the period from 2010 to 2015, and involvement in the sea-of-clouds-watching tours, and those who had devoted a great deal of resources (*e.g.* knowledge or information) in the process. From GSES, four meteorologists, one geographer, one GPS technical expert, and three graduate students were selected. From HRT, one senior manager, three members of the public relations department, and two members of the activity department were selected. Multiple interviews with these 15 key respondents allowed the author to track the individual change resultant from co-creation practices.

Interview topics

The interviews were structured by topic, and semi-guided to allow the respondents to talk freely about the subject. The interview topics focused on the usability of knowledge in relation to tourism practices, the innovation outcomes of co-creation, and sustainability, as well as the incentives and motivators that GSES and HRT respectively have towards cooperative interactions. In addition, other information was sought through the interviews; for example, each of the HRT respondents was invited to explain about how his/her learning had taken place in the shared practice. GSES researchers were asked what sort of obstacles they encountered when working at the tourism site. Each of the GSES students was asked to explain about what he/she learned by working together with tourism practitioners. Also, information on visitor reactions to GSES's environmental interpretations was collected.

Participant observation

In addition to the interviews, the author participated in the workshops that GSES and HRT jointly held at least once per year. The purpose was to capture a holistic picture of the development of the cooperative relationship between the two organizations, which complemented the individual interviews. Each of the workshops had nearly thirty participants from GSES and HRT, including the 15 key respondents.

Analytical framework

The research process resulted in interview transcripts, observation journals, and affiliated notes. To identify the key factors that fostered the knowledge sharing between GSES and HRT towards long-term co-creation, the author used the theoretical model proposed by Hoarau and Kline (2014) as an analytical framework for the case study. Like Hoarau and Kline's study, the author employed a qualitative approach based on a hermeneutic phenomenological ontology and epistemology (Pernecky & Jamal, 2010), and particularly paid attention to the meaning and innovation outcomes of the value co-creation between GSES and HRT.

Codifying and analysis

Data was organized into discrete codes reflecting patterns and ideas emerging from the model. These codes included new value, co-creation practice, shared practice, tacit knowledge, explicit knowledge, learning, strategic reflexivity, innovation process and outcomes, social bonding and capital, challenge and difficulty, and incentive and motivation. Subsequently, these codified data were analyzed, having been placed in the three-components framework of the model – co-creation, strategic reflexivity, and innovation outcomes –to identify factors that contributed to GSES and HRT members committing to co-creation practices. There were some data that did not fit into the framework, which included factors unique to this case study.

2.5 Results

2.5.1 Co-creation practices for the sea-of-clouds-watching tour

Knowledge needs

HRT's demand for knowledge triggered the interaction with GSES, which resulted in co-creation. HRT had faced a problem of complaints from site visitors. The sea-of-clouds-watching tour would rapidly become obsolete due to many imitators, and would consequently lose its market value. A staff member in HRT public relations said that, to solve this problem, she looked to GSES for assistance.

We were afraid that the sea of clouds sighting would be a short-lived fad. After our

public relations triumph using the alluring images of the sea of clouds, many Japanese tourism destinations with similar natural surroundings started imitating our marketing. We felt rushed, as we were confronted with an urgent need to differentiate our Unkai (*unkai* is a sea of clouds in Japanese) attraction from the competitors'. However, we were unable to produce unconventional approaches to this problem on our own (...) and desperately needed an external source of knowledge.

(HRT public relations staff)

HRT expected that the scientific knowledge brought by GSES would empower the tourism staff at the Unkai Terrace, help differentiate the site from the competition, and thereby lead consumers to choose Tomamu as a destination.

To respond to HRT's call for help, GSES researchers decided to provide an environmental interpretation of the sea-of-clouds phenomena that would add new value to the tour experience. But they realized that simply delivering an interpretative product would not succeed in isolation. And they wished to build a long-term relationship with HRT as an external partner for research and practical education, and HRT's resort area was suitable for that purpose. The co-creational relationship would be mutually beneficial, providing usable scientific knowledge to HRT and offering GSES a practical research opportunity.

GSES researchers visited Tomamu many times before settling on an interpretative program for the Unkai Terrace, and exchanged many ideas with HRT staff members to learn about Tomamu's NBT as much as possible. These early intensive dialogues encouraged a solid foundation for future co-creation between GSES and HRT. Thereafter, each time GSES and HRT succeeded in co-creating an NBT practice as shown in Table 1, mutual understanding was furthered, and thereby the cooperative relationship between the two became stronger. When these practices were introduced, they drastically changed the tour process, especially for students and parents, from simply watching the phenomenon to a series of learning (radical change by process innovation) experiences.

When I saw the Unkai movie for the first time, I exclaimed, "What awesome stuff!" Until then, we had never seen the moment-to-moment change of Unkai... I really felt an improvement after the interaction with scientists.

(HRT public relations staff member)

Table 1. Co-created environmental interpretations for the sea-of-clouds-watching tour.

	Content
Unkai School	a two-day program for a limited number of children and parents, consisting of classroom lecture, experiments, observation, and weather prediction.
Unkai-Sennin Tour	a GSES-designed guided tour for a small group of visitors. To capture audience attention and facilitate understanding about the sea of clouds phenomenon, a story-telling method was used where the guide played an imaginary character, unkai sennin (i.e. an old wizard who can manipulate clouds).
Unkai Cards	a guidebook placed on all the tables of Unkai Terrace for the visitors, consisting of twenty-two A5-sized cards, which include a variety of scientific information related to Tomamu's natural environment. The guidebook covers types of sea of clouds phenomena, mechanisms by which they are formed, and other natural phenomena occurring during the winter at Tomamu, and other details of climate observation that GSES has made at the Tomamu destination (Furukawa et al., 2013).
Unkai Movie	a movie that captured the perpetually changing aspects of sea of clouds, using a fixed-point-camera to create a time-lapse video. This is now a program screened for visitors within HRT facilities, and a strong tool used in HRT public relations and sales.
Unkai Handbook	a guiding manual for the sea-of-clouds-watching tour, designed for HRT staff members.

These interpretations are categorized by the type of product innovation in the “summary of innovation outcomes” in Table 2. There are three additional types of innovation outcomes that were revealed in this study in this study, process, marketing, and managerial, were revealed in this study.

Roles in co-creation

All respondents reported that they perceive themselves to have an individual role in improving the sea-of-clouds-watching tour experience. GSES researchers designed and produced interpretative products, and trained HRT staff members to make substantial use of these products. GSES graduate students reviewed the effects of these interpretative products during their masters’ studies, and provided HRT staff with the analytical results. A typical example is that one of the masters-candidates conducted a questionnaire survey in summer of 2013 to examine visitors’ reaction to the Unkai Cards and gave HRT staff the results summarized from about 8,000 respondents. Because of this research, it was inferred that more than half of visitors, nearly 60,000 per year, were satisfied with the information from the cards. HRT staff members serve as guides for GSES-designed interpretative programs

during the tour. These guides leverage this position to glean as many “in the moment” responses from visitors, which are then reported back to the GSES researchers. This feedback delivered via HRT staff members is tacit knowledge, and greatly helps GSES researchers improve the interpretations. One of the researchers said:

Although we try our best to visit the Unkai Terrace as frequently as possible, we are not necessarily able to be there to see visitors’ reactions to the interpretative programs. Therefore, it is very helpful that HRT activity staff members let us know visitors’ reactions, which vary depending on the weather or other circumstances.

(GSES researcher)

GSES researchers are also expected to support HRT staff with specific tasks that are part of the tour routine at the Unkai Terrace, but not directly related to their research work.

GSES faculty members frequently help us, working as guides for small groups of visitors (managerial innovation). Thanks to this, we can closely watch their interpretative technique, and easily use them as a scientific resource should we not remember something. Visitors also get instantaneous feedback from educated sources that enriches their tour experience.

(HRT activity staff)

HRT staff’s interpretative technique is continually improved with new knowledge inputs and progressive coaching from GSES (incremental change by process innovation & managerial innovation). HRT respondents corroborated this, noting that GSES researchers’ participation in the tourism practice fostered a supportive atmosphere.

Knowledge sharing

Through co-creating a sea-of-clouds-watching experience, GSES researchers and HRT staff members share both explicit and tacit knowledge by listening, observing, and learning from each other’s practices. Since starting the relationship with HRT, GSES researchers have collected data from several different types of meteorological equipment installed within the resort area, including at the top of Tomamu Mountain, and analysed the data for disaster prevention education in the Tomamu region. This was a contributing factor to GSES’s decision to commit to the co-creation relationship with HRT. Additionally, GSES researchers have conducted a detailed study of Tomamu’s natural environment, including its geographical characteristics. The scientific observations and data review, as well as the

feedback from HRT staff, have served as a foundation for the interpretative programs presented to visitors. One of the HRT staff members said:

We provide GSES with information about our tourism site and visitors, and GSES gives us scientific knowledge in return, including the mechanisms of various sea of clouds phenomena... GSES made a guiding handbook for our staff, and a guidebook called “Unkai Cards” for visitors, both of which are informative about Tomamu’s natural environment and the sea of clouds. Also, almost every day we receive the report of meteorological data in Tomamu region from GSES. GSES taught us how to read the meteorological reports, and thereby we came to be able to scientifically grasp the current state of the sea of clouds. Thanks to their education, we can more clearly answer visitors’ questions during the tour, and this helps us gain self-confidence as tour guides.

(HRT activity staff member)

The above quote indicates that GSES and HRT members successfully share explicit knowledge through the guide handbook for staff, the guidebook for visitors, and the meteorological data reports (product innovation). In addition, they succeed in sharing tacit knowledge about how to visually distinguish various phenomena of a sea of clouds, how to properly answer to visitors’ questions, and how to interpret the meteorological data.

Thus, HRT staff members have improved their understanding of Tomamu’s natural characteristics, including the climatic phenomena, and, therefore, are more confident in their roles as guide and educator. A typical example is of an HRT staff member who has been a long-time guide and thus familiar with the programmatic interventions proposed by GSES, and serves as instructor for the new employee seminar at the Unkai Terrace, using the GSES-made handbook and guidebook. Also, by reviewing the HRT staff blog, information from a meteorological data report provided from GSES has now been incorporated into explanations about the sea-of-clouds phenomena. This is evidence that HRT staff members have acquired tacit knowledge required to understand scientific data. Interactions with GSES have also had a positive impact on HRT staff in their knowledge acquisition and behaviour as guides and educators.

When we introduced Unkai Cards (the guidebook), many of us thought that it would be too much work, or that it wouldn’t work, anyway... But, we came to realize that the cards were easy for us to understand and quite helpful at increasing visitor satisfaction. Eventually, all the Unkai Terrace staff put the cards on the tables as part

of their morning routine.
(HRT staff member)

Media attention

There was a consensus among respondents that the credibility of GSES's interpretations attracted the media's attention. Repeatedly, during the case study, the Unkai movie was aired on TV news programs, and GSES's involvement was reported in newspapers. HRT has also gained a competitive advantage in the market by emphasizing business-academia collaboration through publishing the co-creation with GSES on their website and in other marketing material (marketing innovation). Under these circumstances, one of the GSES researchers commented about the attitude GSES needs to adopt as follows:

Now, many of the visitors to the Unkai Terrace have high expectations of the sea-of-clouds-watching tour because they know our [GSES's] involvement in it. Although we have provided HRT with scientific knowledge, it's not still enough to explain the diverse and ever changing natural environment and climatic phenomena. So, we should keep updating the knowledge available to HRT staff members to enable them to convey correct information to the visitors. Yesterday, for example, during the tour, I found a white arc in the sky. This is called a halo display, an unusual optical phenomenon produced by the interaction of light from the sun with ice crystals in the atmosphere. I immediately told the HRT staff who were present to say this to the visitors. This was also subsequently posted on the HRT staff's blog (HRT Staff Blog).
(GSES researcher)

This comment showed that GSES researchers felt responsible for knowledge sharing with visitors and staff during the tour, considering them as part of the value-creation of the tour experience.

Concerns

Overall, co-creation practices between GSES and HRT were positive; however, GSES respondents expressed concerns about the way that HRT staff members used GSES-designed interpretative products.

It is up to the HRT staff member to relay the scientific information we gave them to

visitors. If information or knowledge is fresh, HRT staff members seem to be able to use interpretative materials properly for visitors. However, their main purpose is essentially gaining profit rather than conveying accurate scientific knowledge, and so, without our detailed supervision, their performance may be too efficiency-oriented, meaning they might skip some important steps. This might result in leading visitors to have biased or incorrect knowledge...To maintain the high value of the tour, I think, our regular involvement, monitoring and propping-up, is indispensable.

(GSES researcher)

To mitigate these concerns as much as possible, GSES has spent a total of 120 member-days per year on HRT, but still find that there is a gap between the level of detail that GSES would like visitors to know and what HRT members explain. HRT has positively accepted GSES's regular involvement.

2.5.2 Workshops: the main stage for strategic reflexivity

Ratifying the partnership agreement

GSES and HRT formally signed the partnership agreement in April, 2011. This agreement was the result of a conversation between decision makers at GSES and HRT confirming that indeed a mutually agreeable scenario would result if each party committed to cooperation. For both organizations, this partnership agreement outlined the cost, time, and human resources management necessary. It was also decided that HRT would offer GSES researchers free access to the sea-of-clouds-watching tour (riding a gondola for free) and housing during their stay at Tomamu destination, and strategic spaces with electric power to install meteorological equipment. These were foundational decisions for the innovation processes of GSES-HRT co-creation. Most importantly, this agreement led the two parties to jointly and regularly hold a workshop during the off-season between each winter and summer season thereafter.

Workshops

In July of the same year, the first workshop was held at Tomamu. During this workshop, HRT allowed GSES to examine their facilities related to waste disposal, electric generation, and air-conditioning, in addition to those relating to the sea-of-clouds-watching tour. They

also permitted access to their corporate data, so that GSES had all the available material to encourage innovative reflection towards improving HRT's business. This gesture by HRT was based on mutual trust, but unusual for a tourism enterprise.

We were quite surprised that HRT allowed us to access the corporate data. It was a landmark event. We really felt like trusted partners.

(GSES researcher)

The seasonal workshop is held at Tomamu destination or on the campus of Hokkaido University. Participants have a lively discussion to evaluate the outcomes co-created from the last season's shared practices, and brainstorm ideas for the next season's co-creation.

Strategic reflexivity at workshops

Workshops where multiple GSES researchers and HRT staff members strategically reflect upon various types of knowledge have effectively served as innovation processes. The participants are expected to reflect on a wide range of issues including the sea-of-clouds-watching tour. Usually, GSES opens the discussion by reporting on the results of their research work conducted in Tomamu's last season. This scientific perspective often surprised HRT members because the content was new to them, and thus valuable for HRT management. For example, when GSES showed a time-lapse video of night-time cloud formation, HRT members were impressed at its beauty, and the manager was inspired to extend the opening hours of the Unkai Terrace. HRT members were also amazed at GSES's full report on snow-cover distribution and frequency in ski-slope use. To identify an avalanche-prone slope within the resort area, GSES had conducted a detailed survey using GPS technology during the previous snow season. This report was helpful for the manager to set priorities for the needs of facility investment (managerial innovation). Though GSES conducted these projects for a scientific purpose, HRT saw a marketing, commercial, or managerial value in them which distinguished them from the competition.

HRT staff members also try to foster GSES researchers' understanding of a tourism business, reporting on their last season activities, including the sales performance; however, HRT's main requirement at the workshop was to get a GSES's scientific advice on the design of new product and service to be implemented in the next season.

When we received an order for a trip from a high school interested in the sea-of-clouds-watching tour, we tried to design an interpretative program for the

students based on the knowledge GSES previously gave us, but we were not confident... So, at the workshop, we consulted with the researchers about our design. After asking us many questions to understand the target audience, the researchers gave us many ideas to re-design the experience.

(HRT activity staff member)

Brainstorming is an important shared practice as well. For instance, it helped the members generate fresh ideas to make effective use of the Unkai Terrace and the gondola station in addition to its primary usage for the sea-of-clouds-watching tour. This resulted in opening a farmer's market at the station, and maintaining a short trekking trail around the terrace (product innovation). At the end of each workshop, GSES and HRT have managed to construct a framework for the next season's co-creation practices.

2.5.3 Other meetings: complementary stage for strategic reflexivity

In addition to the seasonal workshops, GSES researchers quite often visit Tomamu to have informal meetings with HRT members. These visits have substantially contributed to closer personal relationships between GSES and HRT members, as well as have improved tourism products and services per the framework constructed in the workshops. All the HRT respondents said that they have come to consider GSES members as part of the same team.

GSES members are occasionally invited to HRT's internal staff meetings, and their contributions are expected to promote the betterment of HRT's core tourism business.

Some of GSES graduate students stay in Tomamu during the summer vacation for their master studies, living in the company dormitory. To supervise them, the faculty members also often visit us. I strongly encourage them to participate in our morning briefing and unit discussions. I believe this helps them learn a lot about our tourism practices, and allows for the creation of new ideas.

(HRT activity staff member)

For example, GSES researchers' contributions during these meetings resulted in the launch of a snow laboratory and a science café forum in the winter held at the seasonal ice village at Tomamu (product innovation). GSES's participation in these meetings also helps communicate GSES's presence in Tomamu to those employees who have not yet integrated in the relationship. In this way, GSES researchers may build relationship with HRT staff

members in multiple contexts.

2.5.4 GSES's benefits and motivators

The beneficiary of co-creation is not only HRT. GSES also obtained three different types of benefits from the interactions with HRT. These benefits are directly related to the motivating factors that inspire GSES researchers' participation. Firstly, meteorological equipment installed within the resort area has helped disaster prevention research in the Tomamu region. Prior to the relationship between GSES and HRT, though there were many mountain accidents near the Tomamu destination, experts were not able to take effective measures to prevent them due to a lack of scientific data. Secondly, the Unkai Terrace that serves as HRT's income generator during the summer season was concurrently used as a field to train graduate students. GSES faculty felt that it was important to encourage graduate students to engage in real-world environmental education, and thus to participate outside of the academic environment. They thus welcomed collaboration with an off-campus organization. Thirdly, GSES benefitted from direct feedback to the environmental interpretations from the visitors of Tomamu. GSES researchers constantly sought to refine their knowledge transfer techniques for public environmental education.

Before starting our relationship with HRT, we had aggressively engaged in environmental education activities on environmental enlightenment outside the campus, using our technical knowledge about hydrology and meteorology. Most of these activities were, however, only for a limited audience. Through directly contacting with a wide variety of Unkai Terrace visitors, we expected to be able to reach a wider audience.

(GSES researcher)

A GSES researcher indicated why environmental scientists should take an interest in tourism.

We often give speeches at symposiums or forums. Those who attend these gatherings are surely concerned about environmental issues, and have a certain degree of scientific knowledge. But, to solve environmental problems, we must elevate the scientific literacy of the public. We're quite interested in tourism as a venue to do so. Though it remains difficult to change behavior even if we provide an effective interpretative program at a tourism destination, the number of those who are exposed to the information is going to be greater. Even small changes arising from individual travel experiences could result in a substantial and persistent impact on global

sustainability.

(GSES researcher)

2.5.5 Trust relationship

All of the respondents agreed that GSES and HRT have established a relationship built on mutual trust through shared practice over the past six years. One of GSES researchers described the importance of social bonding in the co-creation between different cultures as follows:

To lower people's guard against new experience and new knowledge, you'd better have a good relationship with them. Without this, even if you emphasize the righteousness of the new knowledge, it wouldn't work. There is no short cut for this exchange, the only way is to develop a close dialogue between different people.

(GSES researcher)

2.6 Discussion

This study endeavors to illuminate how sharing of tacit and explicit knowledge between scientists and tourism practitioners affects innovation processes in tourism. The results clearly reveal the importance of tacit knowledge sharing. Drawing fully upon the strength of their communication skills, GSES researchers effectively incorporated HRT's tacit knowledge into scientific ideas to co-create innovation outcomes, which resulted in fostering feelings of trust and mutual understandings. Embeddedness grew between GSES and HRT as the as the co-creation practice was repeated. The results also vividly illustrate how this embedded relationship further facilitated information transfer and joint problem-solving arrangements. Table 2 summarizes the innovation outcomes co-created by GSES and HRT, grouped by type.

Table 2. Summary of innovation outcomes.

Type	Innovation outcomes
Product innovations	Interpretative products and services relating to the sea-of-clouds-watching tour (as shown in Table 1)
	Meteorological data reports
	Science café forum in the ice village
	Snow laboratory in the ice village
	Farmer's market at the gondola station
Process innovations	Some usable ideas for short trekking trail around the Unkai Terrace
	Radical process innovation: the first introduction of interpretation techniques to the tour
Marketing innovations	Incremental process innovation: improved HRT staff's interpretative technique
	Publishing information about collaboration between GSES and HRT on the Website
Managerial innovations	Publishing information about collaboration between GSES and HRT on the sales materials
	GSES researchers' act as guides during the tour
	Some usable ideas based on ski slope research by GPS technology

This study clearly identified the innovation outcomes co-created by GSES and HRT. They are categorized into four types based on the idea proposed by Hoarau and Kline (2014): product (services & experiences), process, marketing, or managerial.

2.6.1 Fostering trust: the most important factor in embeddedness

It was unintentional, but inevitable, that GSES's endeavor to co-create fostered three crucial components of an embedded relationship: trust, detailed information transfer, and joint problem-solving arrangements. These components are mutually reinforcing and are contradictory to the features of arm's-length ties described by Uzzi (1996); *e.g.* self-interested, profit-maximizing motives, external incentives, enforceable contracts, and impersonal relationships. The relationship is very different in nature, duration and wider purpose to the relationship between large companies and professional management consultancies.

GSES endeavored to ensure that HRT understood that the co-creation relationship would not be a one-way knowledge transfer from researcher to practitioner but would rather be a reciprocal relationship. It is usual for scientific knowledge, in the form of a conventional environmental interpretation from natural science universities to tourism enterprises, to be a one-time event. This, however, ends in a one-way transfer of explicit knowledge only. GSES, however, impressed the importance of having a mutual understanding that the

sea-of-clouds-watching tour is an area of shared interest between HRT, visitors, and GSES. Recognizing that HRT, visitors, and GSES are all stakeholders in the co-creation of the tour experience, acknowledges that each party has roles and respective benefits. In this co-creation relationship, tourists provide feedback to HRT and GSES. Although they are only temporary “visiting stakeholders,” their role is critical because all tourism products and services are created to satisfy the tourist customer. Through early intensive dialogues with HRT, GSES depicted that these three stakeholder groups would be able to reach a mutually agreeable scenario.

GSES earned its trust from HRT based on a non-monetary altruistic motivation, which in turn helped HRT differentiate itself from competitors. The GSES approach in co-creation is, in a way, like the field study methods of cultural anthropology. Instead of studying other people from the comfort of university facilities, cultural anthropologists go into the field to live with the people they study. Researchers can then engage in their community, learn their language, eat their food, and take part in their everyday life; all of which encourage deeper understanding by the researcher, with an insider’s perspective as much as possible (Okely, 2011). Likewise, GSES has been interacting with HRT to gain a thorough understanding of HRT’s tourism needs and practices, working toward effective co-creation through a total of 120 member-days in Tomamu per year. In each case, the key to effective activity in the field is to develop a relationship of mutual trust with the people studied (Schultz and Lavenda, 2009). Just as successful cultural anthropologists strive to build a rapport with their subject, GSES faculty members earned the trust of HRT staff through competence and genuine intentions.

2.6.2 Detailed information transfer: tacit knowledge sharing

Detailed information transfer in embeddedness requires face-to-face interactions, altruistic motives, and experts, to occur (Koskinen et al., 2003). Equipped with these three antecedents, knowledge sharing between GSES and HRT, as a corollary, became detailed and enabled both parties to exchange tacit resources that are not easily priced at a market value. More specifically, by frequently repeating close interaction with HRT staff members over time, GSES researchers succeeded in developing an iterative feedback process that allowed for relatively smooth knowledge transfer/absorption, gap-filling through monitoring and training, and responsive knowledge needs analysis.

Transferring and absorbing tacit knowledge

Deeply understanding the importance of tacit knowledge, GSES researchers realized that simply delivering an interpretative product – which is explicit knowledge – would be insufficient. Through frequent dialogue with HRT staff members, GSES researchers strived to be attentive to and familiar with visitor feedback in order to assure visitor satisfaction by incorporating appropriate scientific feedback into the interpretative product. Visitor feedback is tacit knowledge that HRT staff members had accumulated. GSES researchers also endeavored to understand HRT's organizational and individual tacit knowledge by learning about HRT's tourism practices. As such, they could build their own perceptions about HRT's knowledge needs in addition to that which was conveyed to them as needed by HRT management and staff.

Filling knowledge gaps through monitoring and training

Although GSES researchers attempted to carefully communicate the contents of interpretations to HRT staff members, they sometimes found inconsistencies in HRT staff's presentations. This resulted from the knowledge gap between GSES and HRT. It is therefore necessary to monitor the understanding of knowledge after knowledge transfer is made. Otherwise, it is possible that knowledge is entrenched in the wrong form (Pyo, 2012). Therefore, whenever possible, GSES researchers visited the Unkai Terrace to supervise HRT staff's performance, and gave a hands-on learning opportunity for the staff. Having GSES researchers on-call during tours increased the quality of HRT staff's presentations.

Knowledge needs analysis

This iterative feedback process helped GSES track the emergence or change of HRT's knowledge needs. Although, like other tourism practitioners, HRT staff members were not adept at communicating clearly “what scientific knowledge is needed” or explaining “where it is going to be used,” GSES researchers' communication skills enabled them to infer what was not clearly conveyed by HRT staff.

2.6.3 Joint problem-solving arrangements: a function of the seasonal workshop

Joint problem-solving arrangements that are characterized by embeddedness provide participants with more direct, rapid, and explicit feedback than market-based mechanisms; they enable actors to work through problems together, and to accelerate learning and problem correction (Uzzi, 1996). Although GSES-HRT knowledge sharing opportunities took many forms, they – especially the seasonal workshop – served as innovation processes that strengthened social capital and joint problem-solving attitudes between members. The seasonal workshop included a reflective component where all members reflected on the last season's operations. This encouraged cooperative strategic reflexivity and resulted in new ideas to apply to the next season's operations. This regular meeting encouraged an unconscious habit of reflexivity among members. By repeating this workshop, GSES and HRT have further nurtured a collaborative attitude towards problem-solving, and enriched the embedded relationship.

Embeddedness shifts actors' motivations away from the narrow pursuit of immediate economic gains, toward the enrichment of relationships through trust and reciprocity (Shin et al., 2015). This is exactly what happened to GSES as the relationship with HRT developed. GSES now considers knowledge transfer and co-creation relationships with the tourism enterprise a social responsibility, and helps HRT to become more sustainable by providing a variety of environmental interpretations. Through this long-term study, we have found that building an embedded relationship can be quite helpful in promoting co-creation between universities and tourism enterprises. GSES faculty members were not familiar with the concept of embeddedness as a unique governance mechanism, but they fully understood the importance of trust, which resulted in the formation of an iterative feedback process for tacit knowledge sharing.

2.6.4 Usability of scientific knowledge

GSES made every effort to enhance the usability of knowledge. The more practical the knowledge for HRT staff members, the more motivated those staff were to learn from GSES. HRT staff were therefore better able to convey that knowledge to their clients. There is, however, risk in the pursuit of knowledge usability. Scott and Ding (2008) argue that, at a strategic level, the research should focus on practitioners' views toward maintaining a competitive position among destinations. GSES's researchers have, in part, followed this

approach; however, if this tendency were too prominent, all stakeholders would be adversely affected. For example, if an environmental program contains a lot of narrative to facilitate visitors' understanding, then the scientific content might become distorted out of narrative's necessity. In the short-run, this might attract customers, but in the long-run, both practitioners and researchers lose credibility. To avoid this, GSES researchers have tried to adjust the content of interpretations through frequent monitoring of tours and interactions with HRT staff members.

2.7 Conclusion

The key argument made in this chapter is that natural scientists and other tourism researchers can make significant and substantial contributions to the development of NBT enterprises. To make this contribution, however, universities must continuously provide enterprises with quality scientific knowledge, including environmental interpretations. Quality knowledge, in this case, means usable knowledge that originates from researchers who understand the knowledge requirements of tourism practitioners through knowledge needs analysis and who understand the importance of tacit knowledge sharing. For the universities, this results in an effective off-campus environmental education tool that enhances public awareness, as well as a mechanism to support tourism enterprises in meeting their business objectives. This successful relationship results in a mutually beneficial outcome for universities, tourism enterprises, and the public. Equally, tourism businesses must understand the issues that academic researchers face, and not treat those researchers as if they were short-term low cost consultancy companies.

Through this long-term study, I have found that building an embedded relationship – social capital – can be helpful in promoting co-creation between universities and tourism enterprises. This embedded relationship facilitates trust building, detailed information transfer, and joint problem-solving arrangements. This also plays a key role in overcoming the cultural barrier between academic researchers and tourism practitioners. The academic researchers, however, must acknowledge and commit to the business motives of tourism enterprises. Otherwise, the co-creational relationship would not endure because many tourism enterprises do not have enough resources to invest in sustainable co-creation. Qualified researchers should have the following preconditions: communication skills for smooth dialogue with tourism practitioners; business sense to understand commercial activity in tourism enterprises; recognition of the important role played by tacit knowledge; and strong non-pecuniary

motivation to take on the challenge of supporting the tourism industry through the knowledge-gaining process. If successful in fulfilling the above conditions, academic researchers can build embedded relationships with tourism practitioners through regular and structured interactions.

Trencher et al (2014) argue that co-creation can serve as an important “mission” for the university, in addition to traditional functions of education, research and technology-transfer. They argue that co-creation can serve as a powerful mode of societal engagement for tying the innovative and knowledge producing potential of the university to societal needs, particularly in the context of sustainability.

In cases where universities do not fulfil the above conditions, as Yusuf (2008) argues, specialized and institutional intermediaries can facilitate knowledge transfer and strengthen the effectiveness of the knowledge network. Venture capitalists with relevant experience and mentoring skills may fulfil intermediary functions; however, intermediaries are deeply varied, and thus it is important to note that they are not perfect substitutes.

This chapter tangentially provides an additional comparative case to the research conducted by Hoarau and Kline (2014), although it is limited to one set of actors and one socio-cultural context, a Japanese university and enterprise in tourism. Of importance, theoretically and conceptually, this chapter has illustrated that their model, “Innovation through Co-creation,” is a useful method for describing how knowledge sharing happens, even in different context, country, and culture. Obviously, there is no reason to assume that the sampling frame in this study is generalizable to other countries or to other functional areas, but it possibly represents a good starting point of empirical research on the relations between co-creation, knowledge sharing, and embeddedness in tourism. Therefore, while continuing to observe the case reported in this chapter, the next step will be an endeavor to conduct more empirical research projects with other tourism enterprises, hoping that the argument of this chapter will be further bolstered. There are also many pointers towards the usefulness of the ideas expressed in this chapter to other areas of tourism activity. Stanford and Guiver’s work, for example, on driving pro-environmental change in tourism destinations in the UK stresses the value of creating awareness, trust and learning between the private and public sectors along very similar lines to the work described here between the private sector and academic researchers (Stanford & Guiver, 2016).

References:

- Ardoin, N. M., Wheaton, M., Bowers, A. W., Hunt, C. A., & Durham, W. H. (2015). Nature-based tourism's impact on environmental knowledge, attitude, and behaviour: a review and analysis of the literature and potential future research. *Journal of Sustainable Tourism*, 23(6), 838-858.
- Bell, S., Simpson, S., Tyrväinen, L., Sievänen, T., & Pröbstl, U. (Eds.). (2008). *European forest recreation and tourism: A handbook*. London: Taylor and Francis.
- Boisot, M. H. (1998). *Knowledge assessment: securing competitive advantage in the information economy*. New York: Oxford University Press.
- Bresman, H., Birkinshaw, J., & Nobel, R. (1999). Knowledge transfer in international acquisitions. *Journal of International Business Studies*, 30(3), 439-462.
- Cavusgil, S. T., Calantone, R. J., & Zhao, Y. (2003). Tacit knowledge transfer and firm innovation capability. *Journal of Business & Industrial Marketing*, 18(1), 6-21.
- Cooper, C. (2015). Managing tourism knowledge. *Tourism Recreation Research*, 40(1), 107-119.
- Dearden, P., Bennett, M., & Rollins, R. (2007). Perceptions of diving impacts and implications for reef conservation. *Coastal Management*, 35(2-3), 305-317.

Farsani, N. T., Coelho, C. O. A., Costa, C. M. M. (2014). Analysis of Network Activities in Geoparks as Geotourism Destinations. *International Journal of Tourism Research*, 16, 1-10.

Furukawa, Y., Yamanaka, Y., Nakamura, K., & Tanaka, D. (2013). Investigation on mechanism of "sea of clouds generation" and introduction of the results to tourists. *Abstracts of Japan Geoscience Union Meeting 2013, G04-07*. Retrieved on December 1, 2016 from http://www2.jpгу.org/meeting/2013/session/PDF_all/G-04/G04_all_e.pdf

Gohoshal, S., Korine, H., & Szulanski, G. (1994). Interunit communication in multinational corporations. *Management Science*, 40, 96-110.

GSES(Graduate School of Environmental Science). (2016). *Division Activities of Environmental Science Development*. Retrieved on December 1, 2016 from <http://www.ees.hokudai.ac.jp/division/kigaku/>

Higham, J., & Carr, A. (2002). Ecotourism visitor experiences in Aotearoa/New Zealand: Challenging the environmental values of visitors in pursuit of pro-environmental behaviour. *Journal of Sustainable Tourism*, 10(4), 277-294.

Higham, J. (2007). Critical issues in eco-tourism: *Understanding a complex tourist phenomenon*. Oxford: Elsevier.

Hjalager, A. (2002). Repairing innovation defectiveness in tourism. *Tourism Management*, 23, 456-474.

Hoarau, H., & Kline, C. (2014). Science and industry: Sharing knowledge for innovation. *Annals of Tourism Research*. 46, 44-61.

Honey, M. (2008). *Ecotourism: Who owns paradise?* (2nd ed.). Washington, DC: Island Press.

HRT(Hoshino Resort Tomamu). (2016). *Unkai Terrace*. Retrieved on December 1, 2016 from http://www.snowtomamu.jp/unkai_terrace/meet/.

Idziak, W., Majewski, J. & Zmysłony, P. (2015) Community participation in sustainable rural tourism experience creation: a long-term appraisal and lessons from a thematic villages project in Poland, *Journal of Sustainable Tourism*, 23:8-9, 1341-1362.

Koskinen, K. U., Pihlanto, P., & Vanharanta, H. (2003). Tacit knowledge acquisition and sharing in a project work context. *International Journal of Project Management*, 21(4), 281-290.

Koutsouris, A. (2009). Social learning and sustainable tourism development; local quality conventions in tourism: A Greek case study, *Journal of Sustainable Tourism*, 17(5), 567-581.

- Lane, B. (2009). 30 years of Sustainable Tourism: Drivers, Progress, Problems - and the Future, pages 19-32 in S. Gössling, M.C. Hall, S. Page, & D. Weaver, *Sustainable Tourism Futures: Perspectives on Systems, Restructuring and Innovations*. London: Routledge.
- Levin, D. Z., & Cross, R. (2004). The strength of weak ties you can trust: the mediating role of trust in effective knowledge transfer. *Management Science*, 50(11), 1477-1490.
- Mayes, G., & Richins, H. (2009). Dolphin watch tourism: Two differing examples of sustainable practices and pro-environmental outcomes. *Tourism in Marine Environments*, 5(2-3), 201-214.
- McInerney, C. (2002). Knowledge management and the dynamic nature of knowledge. *Journal of the American Society for Information*, 53, 1009-1018.
- Morales, A. C. (2005). Giving firms an “E” for effort: Consumer responses to high-effort firms. *Journal of Consumer Research*, 31(4), 806-812.
- Moscardo, G. (1998). Interpretation and sustainable tourism: functions, examples and principles. *The Journal of Tourism Studies*. 9(1), 2-13.
- Nakazawa, Y. (2009). *Hoshino resort case files*. Tokyo: Nikkei Business Publications.

- Nonaka, I., & Takeuchi, H. (1995). *The knowing-creating company: how Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.
- Okazaki, E. (2008). A community-based tourism model: Its conception and use. *Journal of Sustainable Tourism*, 16(5), 511-529.
- Okely, J. (2011). *Anthropological Practice: fieldwork and the ethnographic method*. London: Berg Publishers.
- Orams, M.B. (1997). The effectiveness of environmental education: Can we turn tourists into 'greenies'. *Progress in Tourism and Hospitality Research*, 3, 295-306.
- Patterson, M. E., & D. R. Williams. (1998). Paradigms and Problems: The Practice of Social Science in Natural Resource Management. *Society and Natural Resources* 11, 279-295.
- Pernecky, T., & Jamal, T. (2010). (Hermeneutic) Phenomenology in tourism studies. *Annals of Tourism Research*, 37(4), 1055–1075.
- Polanyi, M. (1966). *The tacit dimension*. London: Routledge & Kegan Paul.
- Polanyi, M. (2002). *Personal Knowledge: Towards a Post-Critical Philosophy*. London: Routledge.

- Powell, R.B., & Ham, S.H. (2008). Can ecotourism interpretation really lead to pro-conservation knowledge, attitudes and behaviour? Evidence from the Galápagos Islands. *Journal of Sustainable Tourism*, 16(4), 467-489.
- Pyo, S. (2012). Identifying and prioritizing destination knowledge needs. *Annals of Tourism Research*, 39(2), 1156-1175.
- Ratajczak-Mrozek, M. (2014). The importance of locally embedded personal relationship for SME internationalisation process – from opportunity recognition to company growth. *Journal of Entrepreneurship Management and Innovation*, 10(3), 89-108.
- Rodger, K., & Moore, S. A. (2004). Bringing science to wildlife tourism: The influence of managers' and scientists' perceptions. *Journal of Ecotourism*, 3(1), 1-19.
- Rodger, K., Moore, S. A., & Newsome, D. (2009). Wildlife tourism, science and actor network theory. *Annals of Tourism Research* 36(4), 645-666.
- Rodger, K., Moore, S. A., & Newsome, D. (2010). Wildlife tourism science and scientists: Barriers and opportunities. *Society & Natural Resources: An International Journal*, 23(8), 679-694.
- Ruhanen, L. (2008). Progressing the sustainability debate: a knowledge management approach to sustainable tourism planning. *Current Issue in Tourism*, 11(5), 429-455.

- Scott, N., & Ding, P. (2008). Management of tourism research knowledge in Australia and China. *Current Issues in Tourism*, 11(6), 514–528.
- Schultz, E. A., & Lavenda, R. H. (2009). *Cultural anthropology: a perspective on the human condition* (7th ed.). Oxford: Oxford University Press.
- Shaw, G., & Williams, A. (2009). Knowledge transfer and management in tourism organizations: an emerging research agenda. *Tourism Management*, 30(3), 325-335.
- Shin, D., You, Y. Y., Hong, J. W., & Lee, S. K. (2015). Study on the effects of follow-up consulting service on perceived reciprocity, corporate trust and relational embeddedness. *Indian Journal of Science and Technology*, 8(S7), 395-405.
- Stamation, K.A., Croft, D.B., Shaughnessy, P.D., Waples, K.A., & Briggs, S.V. (2007). Educational and conservation value of whale watching. *Tourism in Marine Environments*, 4(1), 41-55.
- Stanford, D. & Guiver, J. (2016). Driving pro-environmental change in tourist destinations: encouraging sustainable travel in National Parks via partnership project creation and implementation, *Journal of Sustainable Tourism*, 24(3), 484-505.
- Stronza, A., & Durham, W. (2008). *Ecotourism and conservation in the Americas*. Cambridge, MA: CAB International.

Trencher, G., Yarime, M., McCormick, K.B., Doll, C.N.H., & Kraines, S.B. (2014). Beyond the third mission: Exploring the emerging university function of co-creation for sustainability. *Science and Public Policy*, 41(2), 151-179.

UNEP. (2011). *Tourism: Investigating in energy and resource efficiency*. Retrieved on December 1, 2016 from http://www.unep.org/resourceefficiency/Portals/24147/scp/business/tourism/greenecconomy_tourism.pdf

Uzzi, B. (1996). The source and consequence of embeddedness for the economic performance of organizations: the network effect. *American Sociological Review*, 61(4), 678-698.

Uzzi, B. (1997). Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly*, 42(1), 35-67.

Wight, P.A. (2001). Ecotourists: Not a homogenous market segment. In D. Weaver (Ed.), *The encyclopedia of ecotourism* (pp. 37-62). New York, NY: CABI.

Xiao, H., & Smith, S. L. J. (2010). Professional communication in an applied tourism research community. *Tourism Management*, 31(3), 402-411.

Yusuf, S. (2008). Intermediating knowledge exchange between universities and businesses. *Research Policy*, 37(8), 1167-1174.

Zack, M. H. (1999). Managing codified knowledge. *Sloan Management Review*, 40(4), 45-58.

Chapter 3 Collaborative knowledge production development and action design between academic researchers and local stakeholders in food tourism: a study of the practical value of tacit knowledge sharing.

3.1 Introduction

Increasingly, literature has depicted food tourism as a powerful contributor to the ‘triple bottom line’ of economic, social, and environmental sustainability in rural communities (*e.g.* Sidali et al., 2015; Sims, 2009; Everret & Aitchson, 2008). When it is adeptly managed with proper knowledge, food tourism represents an alternative means of local development. It has the potential to strengthen a community’s identity, enhance appreciation of the environment, and encourage the regeneration of local heritage and the economy. Thus far, however, there has been limited research about the emerging role of academic researchers in bolstering the food tourism industry (Bertella, 2011; Everret & Aitchson, 2008).

Multidisciplinary academic researchers can help stakeholders secure their regional identity in a sustainable way through the development of a food tourism industry (Everret & Aitchson, 2008). Hoarau and Kline (2014) argue that a co-creational practice between academic researchers and tourism practitioners has great potential to achieve innovation outcomes; however, knowledge sharing between these two parties is not without complication. In many cases, tourism stakeholders do not have enough resources to invest in building an enduring relationship with the research community (Cooper, 2015). In addition, it is difficult for academic researchers to build an embedded relationship with tourism stakeholders, which is an indispensable component of the co-creational practice, ensuring it is both effective and enduring (Higuchi & Yamanaka, 2017).

Embeddedness, a social exchange system, occupies an important role in co-creational practices between researchers and tourism stakeholders (Higuchi & Yamanaka, 2017). In embedded relationships, knowledge transfer/absorption becomes more voluntary, detailed, tacit, and holistic, while joint problem-solving arrangements are strengthened (Koskinen et al., 2003; Uzzi, 1997). Exchange of such tacit knowledge that is not easily valued monetarily is often the trigger of innovation outcomes (Uzzi, 1996). Embeddedness results from frequent and close interaction, which generates a mutual sense of trust. The recipient of tacit knowledge transfer will more accurately disclose his/her level of understanding in an

embedded relationship. This better enables the supply-side to better prepare for the subsequent knowledge transfer (Gohoshal, 1994).

Embeddedness plays a key role in overcoming cultural barriers between researchers and tourism stakeholders, which further ensures the long-term viability of the relationship. Successfully building embedded relationships, however, requires academic researchers to exhibit a specific set of conditions: good communication skills, which encouraging smooth dialogue with tourism stakeholders; business sense, which helps the researchers to understand the tourism industry; recognition of the important role played by tacit knowledge; and strong non-pecuniary motivation to assume the challenge of supporting the tourism industry through the knowledge-sharing process (Higuchi & Yamanaka, 2017). These conditions are challenging, but necessary to create innovation outcomes.

3.2 Aim

This study endeavors to illuminate how researchers' interventions may affect the innovation process towards making Hokkaido's tourism industry more sustainable, and how their initiative may improve joint-problem arrangements with local stakeholders. This case study specifically started in April 2016. It focuses on the development of food tourism in the Kamikawa region of Hokkaido, northern Japan. This chapter is about the first eight months (April to December 2016) of the GSES researchers' involvement in co-creating new value in the food tourism industry with Kamikawa stakeholders. It aims to articulate how the early co-creation process between GSES researchers and Kamikawa stakeholders was achieved, focusing on the importance of tacit knowledge sharing and mutual trust.

3.3 Description of the Kamikawa food tourism

3.3.1 The Kamikawa region

The Kamikawa region is one of six subprefectures within the Hokkaido prefecture, and is located in the northern middle of Hokkaido Island. The area has a suitable climate and geography for farming. Rich water resources originating from Mt. Daisetsuzan fertilize the vast Kamikawa basin, and the inland climate with a wide range of temperatures makes agricultural products rich in taste.

In contrast to the increasing tourism interest in Hokkaido, the Kamikawa region still faces significant challenges such as depopulation and an aging society. Only the Shiribeshi region – that includes Sapporo, the capital city of Hokkaido, and Niseko, a world-famous ski resort – has overcome these fundamental demographic issues. Unlike the Shiribeshi region that has repeated the direct benefits of development for tourism, the Kamikawa region has not historically been a tourism destination. Per an estimate by the Ministry of Land, Infrastructure, Transport and Tourism (2017), the population of Kamikawa will decrease by about 30% between 2000 and 2025. Communities in Kamikawa are facing the resultant economic shrinkage resulting from depopulation.

3.3.2 Kamikawa Food Story

The Kamikawa General Subprefecture Bureau (KGSB) acted in response to depopulation in the region, which would conclusively reduce the viability of agriculture and food-related industries. ‘Kamikawa *Tabemonogatari* (food story)’ is a campaign that KGSB designed to promote food tourism in the region (KGSB, 2016). KGSB is one of 14 subordinate bodies of the Hokkaido Government. Recent changes in the structure of the Hokkaido Government empowered this local organization, and provided funding, to develop a local policy for food-related industries in the region. Staff members in the new Department of Food Promotion immediately established an official website, ‘Kamikawa Food Story,’ to distribute information about agriculture and Kamikawa food tourism to the general public.

This task necessitated that staff members interact with many farmers, chefs, and other food-related sector employees. They were deeply impressed by the industry’s efforts to create quality products and to deliver quality services, as they learned the stories behind the industry and its products. They designed the Kamikawa Food Story website to evoke emotion in the viewer, providing the audience with information on products and services, while also sharing stories and producer profiles in a narrative format. The initial response to the website was positive, and the content appealed to the public. KGSB staff and local stakeholders were delighted, which resulted in a concerted effort to develop closer and more enduring links between the two groups. Regardless of the singular success of KGSB’s Kamikawa Food Story website, the prevailing effect on the tourism market remains small, simply because a local government website is not a tourist resource.

3.4 Methods

3.4.1 Action research approach

The author took an action research approach and positively networked with the stakeholders of the Kamikawa food tourism, considering them as not only study subjects but also full-partners in the mutual learning arenas.

3.4.2 Knowledge needs analysis

Data collection methods

This case study started in April 2016. The primary field data collection method was ongoing semi-structured interviews with stakeholders in the Kamiawa food tourism industry. Other data collection methods were participant observation by the author in shared practices with the local food industry stakeholders and the author's observation documented in a personal journal. A questionnaire was also administered to a small number of the local key stakeholders to gain further insights. In advance of the semi-structured interviews, questions were generated by reviewing a wide range of public reports and websites relating to Kamikawa food tourism. International literature on food tourism, gastronomy tourism, culinary tourism, sustainable tourism, environmental education, social capital including embedded relationships, and action research was also widely consulted.

Sample respondents

The interviews were conducted through face-to-face meetings, telephone calls, or e-mail exchanges during the study. The sample of interviewees consisted of 17 key stakeholders. These were purposely selected based on their assumed knowledge of Kamikawa food tourism, Hokkaido tourism, and Kamikawa food production and supply. Respondents included two officials from KGSB, two officials from the Bureau of Air Transportation, Hokkaido Government, one official from the Civil Aviation Bureau of Ministry of Land, Infrastructure and Transport, one official from the Hokkaido Bureau of Economy, Trade and Industry, one manager from the local agricultural cooperative, and ten members from Club Sarcelle, a network of food-related practitioners (including three restaurant owners, one agricultural product distributor, and six farm owners). Multiple interviews with these 17 key respondents

enabled the author to better understand individual perspectives about the development of a food tourism economy, and the links between practitioners and the food tourism industry.

Interview topics

The interviews were structured by topic, and semi-structured to allow the respondents to talk freely about the subject. The interview topics for government staff focused on the status of tourism and food, the government's related policies, associated urgent issues, network activities, and the future outlook. The topics for the restaurant owners, the farmers, and the distributor differed. These focused on current efforts toward the development of food tourism, network activities, associated expectations and difficulties, and their concerns about the future.

Participant observation

In addition to the interviews, the author participated in the meetings and gatherings between GSES and Kamikawa stakeholders. The most prominent example was the forum that KGSB, Club Sarcelle, and GSES jointly held on October 30, 2016. The purpose was to capture the progress of GSES's involvement in co-creation with Kamikawa stakeholders.

Analysis of interview data

The research process resulted in interview transcripts, observation journals, and affiliated notes. Data was organized into discrete codes reflecting patterns and ideas that frequently emerged in the interview conversations. These codes included the status of food tourism, co-creation practice, shared practice, tacit knowledge, explicit knowledge, learning arena, new value, innovation process and outcome, social bonding and capital, challenge and difficulty, and incentive and motivation. Through codifying work that sought to identify influential factors, the author identified several issues/problems that have a relatively strong impact on the development of food tourism in Kamikawa.

3.4.3 Field trip to Hong Kong and Taipei

The author made a field trip to Hong Kong and Taipei to investigate the images of Japan- and Hokkaido-made food perceived by the people of the source markets through interview and

observation.

The interview focused on four Hong Kong's distributors of Japan-made food. The observation was conducted at major supermarkets and wholesale markets of both Hong Kong and Taipei.

3.4.4 Questionnaire on GSES's involvement

A short and simple questionnaire survey on GSES's involvement was distributed to Kamikawa's main local stakeholders who organized the October 2016 forum. The purpose of the survey was to learn whether the stakeholders affirmatively accepted GSES's involvement. The questionnaire includes the 14 questions (the questionnaire is attached to the Appendices).

3.5 Findings

3.5.1 The early stage of knowledge needs analysis

The initial knowledge needs analysis (May to August, 2016) in the Kamikawa regions began with KGSB's referral to several farm and restaurant owners. The KGSB staff member who was involved in the creation of the Kamikawa Food Story website was not sure whether I, the GSES researcher, would establish a successful relationship with either farmers or chefs. She was concerned that the industry practitioners would be intimidated by the researcher's candid and forthright manner that seems to be valid only in research communication. So, she repeatedly but politely affirmed to the GSES researcher that good listening skills were essential for successfully overcoming communication barriers and paradigmatic differences between academic researchers and tourism practitioners. It was assumed that neither farmers nor chefs would be accustomed to dealing with scholars.

I was afraid GSES researchers' manner might be a detriment to our relationship with farmers and chefs. They tend to be shy, self-conscious and not straightforward about approaching others. We've invested lots of time and energy before building a good relationship....

(KGSB staff)

Based on her response, it was clear that most of the local people still considered academic researchers to be highly strange, almost like visitors from another planet. Abiding by this

advice, the GSES researcher advanced her knowledge acquisition agenda cautiously, ensuring she carefully dealt with local stakeholders.

GSES successfully established a good relationship with the members of Club Sarcelle, a network of food-related practitioners including restaurant owners, distributors of agricultural products, farm owners, and sommeliers. This owed to KGSB's considerate advice. Although the network activity of Club Sarcelle had not been very active despite their 15-year history, the key members just began to challenge several collaborative projects, inspired by KGSB's efforts for vitalizing food tourism. For example, one of the members, a French chef, tried to create a novel plate of sweets by collaborating with a producer of red bean that is one of typical Kamikawa's agricultural products.

When I opened my restaurant 20 years ago, it was not easy to find an agricultural producer who could grow products in the way I liked. But, now the circumstances have changed. I am enjoying challenging new recipes together with collaborative farmers.

(French restaurant owner & chef)

The GSES researcher met the key members at the right time, and thus could cultivate cooperation from them relatively easily.

When GSES researcher visited my café for the first time, I was a bit nervous, but felt delighted that they had an interest in our activity... We enjoyed chatting, and then we realized that two hours had passed.

(Café owner & patisserie)

By frequently interacting through face-to-face meetings, email, SNS, and telephone, the key Club Sarcelle members and the GSES researcher exchanged a variety of ideas about food, the food market, the distribution of Kamikawa's products, and regional development. The leader of Club Sarcelle mentioned that these frequent interactions facilitated trust building, exchanging detailed information that could not be obtained through publicly issued materials. This means the exchange of tacit knowledge that is not easily valued monetarily and often becomes the trigger of innovation outcomes in a value co-creation practice (Uzzi, 1996; Hoarau & Kline, 2014). Soon, the relationship between individual members of Club Sarcelle, KGSB, and GSES evolved to be even closer based on mutual trust and tacit knowledge sharing toward an effective co-creation of new value to the Kamikawa food tourism.

KGSB staff introduced some leading farm owners to GSES. They shared interesting perspectives and stories about challenges faced in their industry. This excited the GSES researcher, and reinforced that there is tremendous potential for the development of Kamikawa food tourism. Many of the farm owners in Hokkaido sell all their products to the regional agricultural unions. In this case, the producers do not have to hold unsold stock, but they cannot decide the price by themselves. The effect on the producer thus depends entirely on the market conditions. Although it is stable sale platform, the producers do not have an opportunity to get a direct feedback from consumers, nor share the challenge of growing new crops. The farm owners whom the GSES researcher met, however, are different than most farmers, as they sell part of their products directly to consumers. A variety of feedbacks from consumers have encouraged these leading farmers to improve the quality of their products and find a new distribution route.

The GSES researcher identified that there was a common emphasis between the staff of KGSG, the members of Club Sarcelle, and the leading farmers. They each insisted on the inclusion of more wealthy people from neighbouring Asian countries, especially from Hong Kong and Taiwan, into their businesses. For the past five years, they had witnessed the rapid increase of independent Asian travelers and business people in many parts of the region. However, although they realized that this increase would directly relate to their business, since they did not know how to properly receive and accommodate international tourists, they did not capitalize on the opportunity. Furthermore, the GSES researcher found that they had never jointly discussed finding a solution to this matter. This was because they thought that the preparation for international tourists was not their responsibility, but the government's task. The GSES researcher suggested them that improving infrastructure is the government's task, but there are some things they should do by themselves, for example, acquiring cultivating a command of English language and providing the latest information in English. One of the Kamikawa respondents reached out to the GSES's advice as follows:

We are tied up with routine tasks, and extremely busy surviving in the small region. It is not easy to depict a large vision... We need some help especially in international matters. Discussion with the GSES researcher is exciting although I was reluctant at the beginning.
(Farm owner)

The GSES researcher visited some of the tourism-related government agencies to ask about the status of infrastructure to support international tourists and to obtain information on the

profile of potential international visitors to the region. This was part of GSES's knowledge needs analysis trying to articulate how an effective capture of international tourists would be achievable. As a result, the GSES researcher learned that, although the government agencies had made great efforts to prepare tourist infrastructure, it was far from adequate, even in Sapporo, the capital city. Surprisingly, it was found that the government agencies had never surveyed on travel decision-making factors in countries of origin for overseas tourists. They only had very limited information gathered within Hokkaido. This fact motivated the GSES researcher to visit Hong Kong and Taiwan to conduct a research on the perspectives of those people there regarding Hokkaido and its food.

3.5.2 The results of the field trip to Hong Kong and Taipei

The GSES researcher visited Hong Kong and Taipei from July to August 2016 to conduct three research activities about the Japanese food. Firstly, to understand consumption patterns in Hong Kong and Taiwan, she explored the extent to which food produced in Japan was sold at supermarkets and also examined what kind of food stuff was dominantly sold at the major wholesale markets. Her primary finding was that Japanese food products were viewed as premium quality items overall. Despite the comparatively high prices, they sold relatively well. Secondly, she interviewed four local Japanese food importers to inquire about the current state of their businesses, and local consumption habits. Each respondent told the researcher that the market for food produced in Hokkaido could expand, since the name 'Hokkaido' has substantial marketing potential. They noted, however, that people from Hokkaido generally lack international business acumen. Although they indeed imported food products that originated in Hokkaido, due to the inefficiency of the producers, they imported most of the product via Tokyo. The researcher coded the data, including whether it was made in Japan, its status in marketplaces in Hong Kong or Taipei, public awareness about the product, prospects or concerns as voiced by the distributors, relative popularity with consumers, and preferences of buyers based on social class. Her third research activity was to prepare for implementing a questionnaire survey in both Hong Kong and Taipei. The details of this survey is explained in Chapter 4.

3.5.3 Sharing the research results with stakeholders

After the research trip to Hong Kong and Taipei, the GSES researcher shared the interview and observation findings with the Kamikawa food tourism stakeholders. Leading farmers –

especially the relatively younger generation – expressed increased interest in the details of the research results. This was because they thought that they would be able to collaborate with the GSES researcher on how to build the local identity of Kamikawa food production by sharing information about potential consumers’ perspectives. The researcher also informally shared this information with certain government officials, which encouraged cooperation between government personnel and the researcher.

3.5.4 Holding a joint forum

On October 30, 2016, KGSB, Club Sarcelle, and GSES jointly held a forum in a hotel ballroom, inviting a total 135 local stakeholders in Kamikawa food tourism, including farmers, food distributors and processors, a sommelier, an Asahikawa City councilor, and local residents. The forum consisted of three parts. Firstly, a buffet luncheon was held and 15 chefs offered unique dishes made with local ingredients. Subsequently, on stage, a panel discussion convened on the topic of defining food tourism. Finally, there was an open discussion with the attendees. As the result of conducting a questionnaire to the local organizer groups, the forum appeared to be a success.

However, while preparing for the forum, a variety of problems arose. A total of 32 actors from KGSB, Club Sarcelle, and GSES participated in the first meeting on October 2, 2016. The GSES researcher thought that she was invited as neutral observers, and so she patiently waiting for the participants to generate discussion between stakeholders. Unfortunately, though, most participants remained silent during the meeting. Only the two the key members of Club Sarcelle endeavored—as organizers—to enliven the atmosphere. After the meeting, the GSES researcher received feedback by email from the participants. Some participants had straightforward questions that were easily answered, while others presented biased scenarios and difficult questions, sometimes simply seeking a request for approval for his/her opinion. Although many of the participants were quiet during the meeting, they nonetheless harbored strong opinions, which were readily shared later. In general, stakeholders were unaccustomed to expressing ideas in public. The GSES researcher was challenged by this problem, and immediately consulted with four key organizers including KGSB’s staff members. This was not an easy scenario to mitigate, nor was there a precedent set or an established means of overcoming it. The Kamikawa food tourism industry had just been conceived, and coordinating interests between owners of small businesses and other stakeholders was very difficult. Ironically, the GSES researcher faced obstacles as fundamental as explaining

terminology like “sustainable food tourism.”

3.5.5 Survey on GSES’ involvement

Between September and December 2016, the GSES researcher endeavored to create avenues for mutual learning. She attended small networking meetings to exchange knowledge and experience, intending to co-create a logical next step in the development of Kamikawa’s food tourism industry. In December 2016, GSES surveyed the key local stakeholders about the perceived effectiveness of co-creating with the GSES researcher. GSES’ involvement appeared to be favorably accepted by the stakeholders.

Partial results are shown as follows (Figure 1):

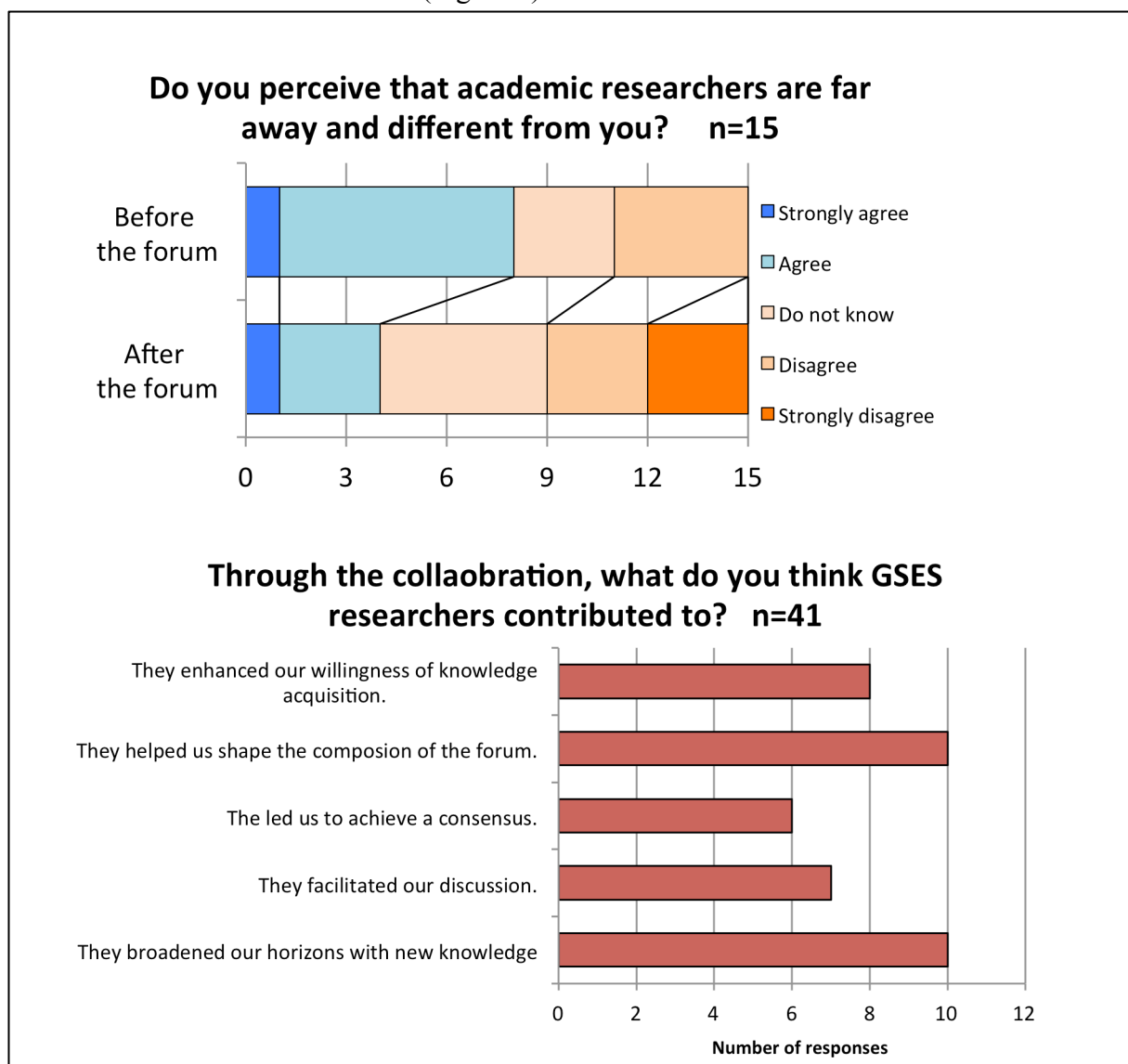


Figure 1. Partial results from the questionnaire administered to key stakeholders in the food tourism industry in the Kamiakawa region

The largest difference between responses indicating a respondent's opinion before and after the forum is regarding stakeholders' perception of academic researchers. After several co-creational sessions, the stakeholders developed a feeling of closeness to the researchers, as is shown in Figure 2. The top responses to the question about GSES' contribution were "broadened our horizons with new knowledge" and "helped us shape the composition of the forum." Furthermore, 100% of the respondents answered that they would like to work together with GSES researchers again in the near future (33.3% responded "absolutely yes" and 66.7% responded "yes").

3.6 Discussion

The results reveal that mutual trust between researchers and local stakeholders is essential for the researchers to effectively participate in innovation processes toward more sustainable tourism. Mutual trust between the GSES researcher and Kamikawa stakeholders was strengthened through frequent interaction. Tacit knowledge transfer, encouraged by mutual trust, became more detailed, which further improved the collaborative attitude of the stakeholders. Results also indicate that, as tacit knowledge sharing advances, the usability of knowledge offered by the GSES researcher also increases. Considering these aspects together, this study validates that trust can act as a governance mechanism by facilitating the extension of benefits to partners, and inviting the receiving party to reciprocate when an appropriate situation arises (Morales, 2005).

For Hokkaido, which faces profound problems such as depopulation and an aging society, it is important to urgently revitalize agriculture that is the district's key industry. This would be achievable by promoting food tourism and the associated food-related industries. With advanced agricultural techniques and abundant natural resources, Kamikawa is among the most active regions tackling this challenge in Hokkaido. This chapter endeavors to illuminate the early stage of the GSES researcher's attempt to lead the Kamikawa region's food tourism industry toward sustainability.

3.6.1 Obtaining trust: building a governance mechanism for co-creation

Gohoshal (1994) argues that a feeling of trust results from frequent and close interaction, and trust in mutual good-faith encourages the recipient to more accurately disclose the current level of his/her understanding. In order to conduct a detailed knowledge need analysis, the

GSES researcher frequently visited the key Kamikawa stakeholders to establish trust and to better understand their needs. Initially, this approach was superior to interacting with local stakeholders by delivering an overwhelming amount of scientific knowledge, while emphasizing its validity and applicability. To accurately assess the knowledge need of the stakeholders, the GSES researcher had to listen to fundamentally understand the experiences, values, and professional inferences of stakeholders, all of which are tacit knowledge. Tacit knowledge is knowledge that we have, and know we have, but nonetheless cannot easily put into words (Polanyi, 2002, p.60). By carefully listening to the reported problems, the GSES researcher impressed to the key stakeholders that GSES would be a good long-term partner and knowledge source to co-create new value for the Kamikawa food tourism industry. She also emphasized that the co-creational relationship was not a one-way knowledge transfer from researcher to local stakeholder, but would be a reciprocal relationship. Kamikawa would provide GSES with various arenas for education and research in return. This reciprocal and close relationship was the foundation of tacit knowledge sharing. This foundation would be a valuable resource for future innovation outcomes, as reciprocal tacit knowledge sharing with local stakeholders would ultimately improve the usability of information offered by GSES.

3.6.2 Reaching the first common research question through detailed information sharing

Koskinen et al. (2003) argue that detailed information transfer requires face-to-face interaction, altruistic motives, and participating experts, to occur. GSES was equipped with these three conditions and thus extrapolated the common knowledge need between different groups of Kamikawa stakeholders. This mutual knowledge need became the first common research question to be explored by GSES researchers. All local government officials, restaurateurs, and farmers emphasized that they believed the inclusion of the relatively wealthy neighboring Asian countries—especially Hong Kong and Taiwan—was essential to a thriving Kamikawa food tourism industry. Surprisingly, however, they had never discussed this amongst stakeholders, nor cooperated with each other to achieve this in the region. GSES used its neutral position to establish a common research subject between stakeholders. The researchers immediately started exploring the perspectives that people in Hong Kong and Taipei have on Hokkaido and its food-related industries. Thus far, the proactive approach by GSES has been welcomed by the stakeholders.

3.6.3 Difficulty in constructing arenas for mutual learning

Although the GSES researcher shared scientific knowledge and research results with stakeholders, the methods and the extent to which knowledge should be shared were unclear. This was particularly apparent during the preparation period for the joint forum between KGSB, Club Sarcelle, and GSES. GSES researchers were not in agreement about how to answer questions posed by chefs or farmers. Though the chefs and farmers had learned a substantial amount about sustainability and related fields, from the perspective of the researchers, their knowledge was often biased. Though it may be argued that local heritage and identity are essential to the development of a sustainable food tourism industry, scientific knowledge should be included as much as is realistic. However, the stakeholders are not like students on a campus, and are instead busy working in their own practices and disciplines. Even GSES researchers were not confident about how sustainable development should be cultivated, considering the myriad of factors involved. This problem remains unsolved, but co-creational practices between GSES researchers and Kamikawa stakeholders have significant potential to mediate mutual learning. Despite a lack of confidence in these findings, the results of the questionnaire conducted after the forum indicate that the GSES researcher's involvement was positive and accepted by local stakeholders.

3.7 Conclusion

Following Chapter 2, the study has further confirmed that tacit knowledge sharing, mutual trust, detailed knowledge transfer/absorption, and joint problem-solving have significant roles in building embeddedness in co-creational practice between academic researchers and tourism practitioners. Especially obtaining trust from the farmers and chefs was the key for the researcher to conduct an effective knowledge needs analysis at the early stage. Also, the action research approach that researcher took enhanced joint problem-solving attitude and mutual understanding, overcoming the cultural differences.

The most important outcome of the study is that, based on the results of the detailed knowledge needs analysis, the researcher set up the next research agenda – measuring the destination images of Japan and Hokkaido (the study in Chapter 4) – that is related to what the stakeholders should urgently identify.

This chapter also raises an important issue about the academic concept of sustainable

development in food tourism being vague, even to researchers. Interestingly, although this inhibits clear communication of the concept across sectors, it also presents an opportunity for mutual learning between researchers and stakeholders.

These findings may be applicable to other research or different scenarios in the tourism industry.

References:

- Cooper, C. (2015). Managing tourism knowledge. *Tourism Recreation Research*, 40(1), 107-119.
- Bertella, G. (2011). Knowledge in Food Tourism: The Case of Lofoten and Maremma Toscana. *Current Issue in Tourism*, 14, 355-371.
- Everett, S. & Aitchison, C. (2008). The Role of Food Tourism in Sustaining Regional Identity: A Case Study of Cornwall, South West England. *Journal of Sustainable Tourism*, 16(2), 150-167.
- Gohoshal, S., Korine, H., & Szulanski, G. (1994). Interunit communication in multinational corporations. *Management Science*, 40, 96-110.
- Higuchi, Y. & Yamanaka, Y. (2017). Knowledge sharing between academic researchers and tourism practitioners: a Japanese study of the practical value of embeddedness, trust and co-creation. *Journal of Sustainable Tourism, Latest Articles*. 1-18
- Hoarau, H., & Kline, C. (2014). Science and industry: Sharing knowledge for innovation. *Annals of Tourism Research*. 46, 44-61.
- Kamikawa General Subprefecture Bureau (KGSB). (2016). *Kamikawa Tabemonogatari (food story)*. Retrieved on December 1, 2016 from <http://www.kamikawa.pref.hokkaido.lg.jp/ss/srk/kamitabe.htm>.
- Koskinen, K. U., Pihlanto, P., & Vanharanta, H. (2003). Tacit knowledge acquisition and sharing in a project work context. *International Journal of Project Management*, 21(4), 281-290.
- Ministry of Land, Infrastructure, Transport and Tourism. (2017). Retrieved on February 2, 2017 from <http://www.mlit.go.jp/common/001055744.pdf>.
- Morales, A. C. (2005). Giving firms an “E” for effort: Consumer responses to high-effort firms. *Journal of Consumer Research*, 31(4), 806-812.

- Polanyi, M. (2002). *Personal Knowledge: Towards a Post-Critical Philosophy*. London: Routledge.
- Sidali, K. L., Kastenhoz, E., & Bianchi, R. (2015). Food tourism, niche markets and products in rural tourism: combining the intimacy model and the experience economy as a rural development strategy. *Journal of Sustainable Tourism*, 23(Nos. 8-9), 1179-1197.
- Sims, R. (2009). Food, place and authenticity: local food and sustainable tourism experience. *Journal of Sustainable Tourism*, 17(No. 3), 321-336.
- Uzzi, B. (1996). The source and consequence of embeddedness for the economic performance of organizations: the network effect. *American Sociological Review*, 61(4), 678-698.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly*, 42(1), 35-67.

Chapter 4 Destination images of Japan and Hokkaido: a survey of Hong Kong people's perception on and attitude towards traveling.

4.1 Introduction

Ahead of the study of this chapter, the author carried out the knowledge needs analysis (Chapter 3: Higuchi & Yamanaka, 2017b) in the Kamikawa region where community started networking to develop food-tourism. As a result, it was revealed that, although local stakeholders had witnessed the rapid increase of independent Asian travelers and business people in many parts of the region for the past five years, they did not know how to capitalize on this opportunity. Hokkaido tourism stakeholders have been encouraged to attract as many wealthy international tourists from neighboring Asian countries into their business as possible (JTA, 2016; HTO, 2012). However, the Kamikawa stakeholders did not have abilities enough to identify markets that would continue to deliver business in the long-term; understand what potential consumers are looking for; nor adapt to trends and changes in source market conditions, travel patterns, and tastes. Therefore, they were not able to properly receive and accommodate the newly increasing Asian international tourists (Chapter 3: Higuchi & Yamanaka, 2017b).

Following the knowledge needs analysis (Chapter 3: Higuchi & Yamanaka, 2017b), the author conducted a questionnaire survey on 'destination decision-making' in Asian cities. The questionnaire employs the framework of Murphy's study (2000) that explores destination images perceived by backpackers who visit Australia. This is because his framework succeeds in providing a useful input into overall image management and competitive advantage strategy by identifying negative perceptions and the countries with which Australia must compete on important tourism attributes. The biggest groups of Asian international tourists who visit Hokkaido are from Taiwan, China, Hong Kong and S. Korea (Hokkaido Government, 2017). In researching on Hokkaido's destination image perceived by potential Asian tourists, any of (cities in) these countries could have been a candidate as a study subject. In this study, paying attention to the high density of wealthy people within a limited area, Hong Kong and Taipei were chosen as the cities for sampling. The survey was implemented in both Hong Kong and Taipei from September to November 2016. In Hong Kong, nearly six hundred responses were successfully collected, but, in Taipei, there were only fifty-seven responses gleaned. Therefore, this chapter reports only on the results of the

survey conducted in Hong Kong. On the other hand, regarding Taipei, the continuous distribution of questionnaire is planned in the near future.

The results of measuring the destination images of Japan and Hokkaido gave quantitative and qualitative data that revealed many elements which influence the direction of tourism development. This chapter concludes by outlining how researcher-led evaluation may play a role in researchers' action research approach that attempts to support tourism stakeholders, especially in relation to its propensity to encourage sustainable development. Although Japan and Hokkaido-focused, it is anticipated that the findings within this research have a wider relevance to other regions who try to experience a regeneration by creating a new value of tourism experience for international tourists.

4.2 Theoretical background

4.2.1 Definition and contents of a destination image

The importance of measuring a tourism destination's image is universally acknowledged (Kock et al., 2016). This is because destination image plays a fundamental role in the success of the destination, since the image, seen as individual's psychological representation formed by a set of tourism attributes that define the destination, strongly impacts on consumer behavior in the tourism sector (Echtner and Ritchie 2003; Gallarza, 2002; Bigné, Sánchez, & Sánchez, 2001; Chon, 1990; Stabler 1995). Some scholars (e.g. Baloglu & McCleary, 1999; Walmsley & Young, 1998; Baloglu & Brinberg, 1997) tend to consider a destination image as the result produced by mixing two closely interrelated components: the perceptive/cognitive evaluations, which refer to the individual's own knowledge and beliefs about the object, and affective appraisals, which refer to the individual's feelings towards the object. According to a cognitive point of view, tourist destination image is assessed on a set of attributes that correspond to the resources or attractions that the destination has (Stabler, 1995). Those attractions are the elements of a destination that attracts tourists, such as scenery to be seen, activities to take part in, and experiences to remember (Lew, 1987). The attractions provide the motivations and the magnetism necessary to persuade an individual to visit a determined place (Alhemoud & Armstrong, 1996). In terms of a theoretical point of view, the literature shows a consensus about the cognitive component being an antecedent of the affective component and about the evaluative responses of the consumers stemming from their knowledge of the objects (Stern & Krakover, 1993; Anand, Holbrook, & Stephens,

1988). In addition, the combination of these two components gives rise to an overall image that refers to the positive, or negative, evaluation of the product or brand.

4.2.2 Importance of measuring a destination image

The measurement of a destination image can provide several important implications for tourism practitioners who want to understand how their destination is perceived by tourists and how positive behavioral intentions can be triggered. Through achieving this evaluation, the practitioners can identify strengths and weaknesses of their destination offering, and plan marketing strategies accordingly. For example, if the practitioners identify a negative attribute that tourists strongly associate with a destination, they may either try to weaken the link between the attribute and the destination or increasing its favorability. Therefore, tourism practitioners have to grapple with the understanding of a destination image, “how tourists think, feel and behave,” to build an effective strategy. On the other hand, tourism researchers should use multiple approaches to conceptualize and operationalize a destination image, since one concept or approach is not able to appropriately represent the complexity of cognition and affect, and their impact on tourist behavior (Kock et al., 2016).

4.2.3 Forty-year-efforts of measuring a destination image

Tourism researchers have devoted considerable effort to understand how individuals mentally form, store and use representations of destinations during the last four decades, (Kock et al., 2016). Despite the overwhelming amount of research of destination image, there are still many facets of this complex construct yet to be investigated empirically, because, as previously mentioned, the image formation includes individuals’ psychological states that are fluctuating at a variety of internal or external factors (Lean, Staiff, & Waterton, 2014; Tasci & Garner, 2007). The need for more research is critical to deepening the understanding of the destination image in influencing tourists’ decision-making and travel behavior (Ramkissoon & Uysal, 2011).

4.2.4 Collaboration among local stakeholders and researchers to co-create innovative tourism knowledge

Within processes in tourism development, a crucial role is recognized to knowledge, especially tacit knowledge, and collaboration across fields (Hjalager, 1996). To promote a

form of tourism that can contribute to regional regeneration, the concept of sustainable tourism as an adaptive paradigm has been developed and discussed in the last decades (Hunter, 1997; Moscardo, 2008). In this paradigm, tourism can be conceptualized as a possible developmental option based on the uniqueness of a region. In such tourism, regional development can be sustained through combining economic activities across sectors and continually absorbing new knowledge from the outside sources. Consequently, it requires the collaboration among various actors from different fields and the integration of different types of knowledge (Kauppila, Saarinen, & Leinonen, 2009; Saarinen, 2007; Scarpato, 2002). Some recent studies in knowledge management in tourism seem to be in the direction of an understanding of collaboration as a process characterized by continuous learning (Bramwell & Lane, 2000). Some scholars consider knowledge as a resource to be shared across sectors through collaborative relations (Shaw & Williams, 2009). In these perspectives, networking/building-a-collaborative-relationship can be seen as a strategic choice for regional development since it can provide the different types of expertise that are considered necessary in order to develop a sustainable form of tourism (Tovey & Mooney, 2006). Higuchi and Yamanaka (2017b) strongly argue that academic researchers should get involved in this networking in order to provide scientific knowledge based on research and objective evaluation, bridge a chasm between the academic environment and local tourism site, and inject a perspective of sustainability into commercial-oriented development. They also insist that knowledge needs analysis – identifying what types of knowledge are required for the local development – is a role that researchers should play, and also that, to support local stakeholders to achieve their business objectives, researchers should attach a higher importance to the tacit knowledge that network members have (Higuchi & Yamanaka, 2017a; Pyo, 2012; Cooper, 2006).

4.3 Study methods

Data collection

Aiming to grasp Hong Kong people's preference in selecting a destination and how they perceive Japan and Hokkaido as a tourism destination, questionnaires were widely distributed in Hong Kong from August to November 2016. The distribution was implemented through the local project collaborators' personal and professional networks, and also conducted at random. Specifically, the distribution networks included the Chinese University, the University of Hong Kong, the Hong Kong Polytechnic University, and Hong Kong Jockey

Club. The campuses were suitable for collecting responses from students, and the membership club was ideal for collecting responses from wealthy people. Random distribution occurred at the Sogo department store and Tsim Sha Tusi East shopping center. The distribution format was both in electronic and print media.

Sample respondents

An ideal sampling is to extract as big sample body as possible that has the same rate as the whole population, in all attributes such as gender, age, social class, etc. However, such sampling is very difficult to conduct in terms of time and cost consumed. Therefore, multistage sampling was employed although it is not as accurate as simple random sampling in case that the sample size is the same. Then, sample respondents were intentionally selected from three different social layers respectively consisting of students, ordinary people, and wealthy people. Since these groups of people were supposed to respond to the questionnaire very differently, the results were expected to cover a wide range of the diversity of the Hong Kong society.

Table 1. Age & Gender structure in the Hong Kong Demographics Profile 2014

At mid-2014, there were 858 males per 1000 females. The median age of the total population was 42.8.

Age Group	Male		Female		Total	
	N	%	N	%	N	%
0-14	415200	5.7	389200	5.4	804400	11.1
15-24	421400	5.8	413800	5.7	835200	11.5
25-34	457200	6.3	639800	8.8	1097000	15.1
35-44	466500	6.4	673000	9.3	1139500	15.7
45-54	568500	7.9	679600	9.4	1248100	17.2
55-64	519300	7.2	532300	7.4	1051600	14.5
65 and over	497000	6.9	568900	7.9	1065900	14.7
Total	3345100	46.2	3896600	53.8	7241700	100.0

Table 2. Income structure in the Hong Kong Demographics Profile 2014

The median monthly domestic household income for 2014 was \$23,500.

Monthly household income (HK\$)	% of total domestic households
under 4,000	5.4
4,000-5,999	5.3
6,000-7,999	4.8
8,000-9,999	4.9
10,000-14,999	11.3
15,000-19,999	10.6
20,000-24,999	9.9
25,000-29,999	7.7
30,000-34,999	7.3
35,000-39,999	5.4
40,000-44,999	4.6
45,000-49,999	3.5
50,000-59,999	5.5
60,000-79,999	6.1
80,000-99,999	2.9
100,000 and over	4.7
Total	100.0

} Considered as relatively wealthy people

Questionnaire contents

The questionnaire consisted of a total of thirty questions. The first half questions are related to food and food safety, and the latter half questions are about destination decision-making. The copies of questionnaires are attached to the appendices. This chapter's report is limited to the destination images of Japan and Hokkaido relating to the latter half questions since the responses relating to the first half questions are still under ongoing analysis. The languages used in the questionnaire are both English and Cantonese.

Image measuring approaches

To measure a destination image, this study employed Murphy's methodology (2000), a combination of structured and unstructured approaches. Using this combination, he succeeds in measuring Australia's destination image perceived by the backpackers, and identifying negative perceptions and the countries with which Australia must compete on important tourism attributes. These two approaches were expected to complement one another.

As the structured approach, Likert scale, a set of semantic differential consisting of 1

(negative extreme) to 5 (positive extreme) was used. The questions of the structured approach included evaluating on the nine predetermined tourism attributes that each destination would supposedly possess in common, and rating on the nine predetermined importance criteria in choosing a destination. The nine tourism attributes and the nine importance criteria were intentionally made exactly the same to use the latter ones as weighting when analyzing ratings later on. These nine items consisted of the eight from Murphy's study (2000) and English command that was added because Japan and Hokkaido are non-English-speaking destinations. The results were the list of destinations by attribute matrix produced by the respondents' evaluation and the image profile derived from it. To be specific, the respondents were asked to specify four countries and two Japanese destinations that they would like to visit on the next trip. They were then asked to rate the attractiveness of each destination on the listed nine attributes (i.e. tasty food, climate, safety, cost, friendly people, interesting culture, natural attraction, interesting activities, and English command) according to Likert scale. Subsequently, in the same way, they were asked to evaluate the importance degree of the nine criteria in choosing a destination.

The good points of the structured approach include that it is easily administered, produces data that can be easily coded and analyzed, and facilitates comparison across destinations (Murphy, 2000). However, the structured approach does not provide elements to describe holistic references, and thus the completeness can be highly variable depending on the procedures used to elicit the attributes of the image (Echtner and Ritchie, 1993). Also, this approach cannot provide insight about uniqueness and psychological elements of destination image because of focusing on destination's functionality (Murphy, 2000). To cover this insufficiency, this study used an unstructured approach that is an alternate form of measurement using free-form descriptions to measure an image. The respondents were asked to list any additional words or phrases that described their image of Hokkaido and its food. This approach is considered as more conducive to measuring holistic image and unique features which are more salient to respondents (Echtner and Ritchie, 1991). However, using only unstructured data allows for limited statistical analysis and is subject to more interpretational biases than structured data. Therefore, a combination of structured and unstructured methodologies is necessary to accurately measure destination image (Echtner and Ritchie, 1993). The responses to open-ended questions allowed the more holistic, psychological, and unique characteristics of Hokkaido's image as a tourism destination to emerge.

Analysis

All data were summarized/organized into tables. Firstly, the importance degree of criteria in choosing a destination was examined to figure out what kind of preference and attitude the respondents had towards traveling. Secondly, these results from the above criteria analysis were used as weighting when analyzing the ratings of tourism attributes to examine the images of destinations. The details of the way of calculating with weighting are explained in the Discussion section later on. Thirdly, the responses to the open-ended questions about Hokkaido were analyzed, and then, the results were added to the measurement of Hokkaido's destination image.

4.4 Results

4.4.1 Profile of respondents

Table 3. Profile of sample respondents

		Students N(=230)		Ordinary people N(=255)		Wealthy people N(=112)		Total N(=597)	
			%		%		%		%
Gender	Male	99	43.0	99	38.8	66	58.9	264	44.2
	Female	131	57.0	156	61.2	46	41.1	333	55.8
Age Group	75 +	0	0.0	0	0.0	4	3.6	4	0.7
	65 - 74	0	0.0	7	2.7	14	12.5	21	3.5
	55 - 64	0	0.0	26	10.2	41	39.3	67	11.2
	45 - 54	0	0.0	75	29.4	36	29.5	111	18.6
	35 - 44	1	0.4	91	35.7	7	6.3	99	16.6
	25 - 34	1	0.4	48	18.8	2	1.8	51	8.5
	18 - 24	228	99.1	8	3.1	8	7.1	244	40.9

The survey collected total 683 responses, and 86 of them were invalid because of too many blanks to the questions. So, a total of 597 of them were valid to be analyzed. The breakdown of the sample body of respondents is as indicated in Table 3.

Table 4. Comparison between sample and Hong Kong population

		Respondents of this survey (n=597)	2014 Hong Kong Population (n=7241700)
Gender	Male	44.2%	46.2%
	Female	55.8%	53.8%
Age Group	65 & over	4.2%	14.7%
	55-64	11.2%	14.5%
	45-54	18.6%	17.2%
	35-44	16.6%	15.7%
	25-34	8.5%	15.1%
	0-24	40.9%	22.6%
Social Stratification	Relatively wealthy	19.0%	7.6%
	Others	82.0%	92.4%

The results of comparing the structures of gender, age group, and social layer between the respondents of this survey and the whole population of Hong Kong in 2014 are as indicated in Table 4. Although it was not intended, the gender structure of the respondents in this survey almost consisted with that of the whole population of Hong Kong in 2014 (Table 4). As for the age structure difference, the age range up to 34 years in the survey exceeded that of the population by 11%, and the age range over 65 years fell below that of the population by 10%. This was probably because the distribution of questionnaire was intensively conducted at university campus, and because the average age of the network members who cooperated with this distribution was relatively young. The other in-between three age ranges were close each other. The ration of wealthy people of the survey was more than two times as that of the whole population. This happened because the survey intentionally tried to collect a response from wealthy people to figure out their attitude towards traveling.

As detailed later, it was revealed that the resultant responses did not differ very much depending on social stratification. Therefore, the most of the analyses in this study were conducted, taking these three groups collectively without grouping. However, since there is a minor difference in responding among the three social groups, further detailed analysis by social stratification following this study will be required, especially to understand the behavior of wealthy people.

4.4.2 Rating on the nine criteria in destination choosing

Table 5. Rating on the nine criteria in choosing a destination

	(1=not at all important, 5=very important)	Quality/ tasty food	Comfortable climate	Safety	Cost	Friendly people	Interesting culture	Natural attractions	Interesting activities	English command
Total	5	37%	11%	45%	33%	23%	8%	17%	5%	4%
	4	54%	58%	46%	45%	58%	52%	55%	29%	38%
	3	7%	27%	9%	18%	17%	36%	27%	51%	51%
	2	1%	2%	0%	1%	1%	2%	1%	13%	6%
	1	0%	1%	0%	1%	1%	2%	1%	2%	1%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
	*Total percentage of rating 5 & 4	91%	69%	91%	78%	81%	60%	72%	34%	42%
	Average importance rating	4.3	3.8	4.4	4.1	4.0	3.6	3.9	3.2	3.4
Students	5	48%	9%	48%	48%	2%	9%	16%	5%	1%
	4	47%	58%	48%	42%	23%	53%	53%	23%	29%
	3	4%	31%	3%	9%	53%	37%	30%	64%	67%
	2	1%	2%	0%	0%	15%	1%	1%	8%	3%
	1	0%	0%	0%	0%	7%	0%	0%	0%	0%
	Total % of 5&4	95%	67%	96%	90%	25%	62%	69%	28%	30%
	Ave. importance rating	4.4	3.7	4.4	4.4	4.1	3.2	3.8	3.2	3.3
Ordinary people	5	31%	13%	43%	32%	4%	8%	22%	5%	5%
	4	55%	56%	41%	43%	30%	47%	47%	22%	33%
	3	13%	25%	16%	22%	33%	40%	30%	50%	50%
	2	2%	4%	0%	2%	15%	3%	0%	21%	10%
	1	0%	2%	0%	2%	19%	2%	1%	2%	2%
	Total % of 5&4	86%	69%	84%	75%	34%	55%	69%	27%	38%
	Ave. importance rating	4.1	3.8	4.3	4.0	3.9	3.6	3.9	3.1	3.3
Wealthy people	5	31%	11%	41%	7%	30%	3%	8%	3%	9%
	4	67%	63%	54%	59%	56%	59%	73%	59%	66%
	3	2%	22%	4%	30%	10%	28%	17%	28%	19%
	2	0%	0%	1%	1%	0%	5%	0%	5%	3%
	1	0%	3%	0%	3%	3%	5%	2%	5%	4%
	Total % of 5&4	98%	74%	95%	66%	86%	62%	81%	62%	75%
	Ave. importance rating	4.3	3.8	4.3	3.6	4.1	3.6	3.9	3.5	3.7

*Total percentage of rating 5 & 4

Red: majority

Brown: between majority and minority

Blue: minority

Respondents' rating on the nine criteria in choosing a destination articulates which criterion they attach the most importance to, and how they choose a destination (Table 5). As explained in the Methods section, the items of the nine criteria were intentionally made the same as the nine tourism attributes in order to use them as the weighting in evaluating destinations. It is considered more important to focus on the total percentage of the respondents who rated 5 and 4 on the criteria rather than averaged ratings (Table 5: colored in red, brown, and blue). For example, looking at the food criteria, the averaged rating is 4.3 and 91% of the respondents rated 5 or 4 on this criterion. The percentage of 91 is surely

numerical value that is calculable in arithmetic operations; however, the averaged rating of 4.3 cannot be calculable numerical value since the distances between 1 and 2, 2 and 3, 3 and 4, and 4 and 5 are not necessarily the same. Likert scale is a set of semantic differential and ordinal scale. Therefore, the product is not interval scale data that suits parametric approach.

The three different social groups denoted a similar tendency in responding. The most notable similarity is that, for all of the three groups, food and safety are the most important criteria in choosing a destination. Following food and safety, the criteria of climate, cost, natural attraction, and interesting culture are also relatively important to all of them, and there is not a big gap among the social groups. However, not surprisingly, wealthier people pay less attention to cost.

Regarding the ratings on the three criteria – i.e. friendly people, interesting activities, and English command –, there is a difference between wealthy people and the other two social groups. While ordinary people and students did not attach a high importance to these criteria, wealthy people paid much more attention to these in choosing a destination. This can be understood that wealthy people have a desire to communicate and interact with destination community people while ordinary people and students do not so much.

Although there are a couple of discrepancies between wealthy people and the other two social groups in rating the criteria in choosing a destination, overall, the responses do not vary widely.

4.4.3 Simple rating on tourism attributes according to Likert scale: international destinations

Table 6(a). Rating on the nine tourism attributes of competing international destinations

Destination	n of responses				Average attractiveness rating by three social layers i.e. ordinary people, students, and wealthy people (1=not at all attractive, 5=extremely attractive)									
	Total	Ordinary people	Students	Wealthy people	Tasty food (A1)	Climate (A2)	Safety (A3)	Cost (A4)	Friendly people (A5)	Interesting culture (A6)	Natural attraction (A7)	Interesting activities (A8)	English command (A9)	
International destination ranking to visit on the next trip	1 Taiwan	332	138	153	41	4.05	3.66	3.97	3.36	3.93	3.63	3.64	3.39	2.42
	2 S. Korea	266	99	130	37	3.95	3.59	3.95	3.13	3.73	3.62	3.64	3.41	2.44
	3 Thailand	248	97	122	29	3.95	3.67	3.72	3.33	3.80	3.55	3.49	3.46	2.51
	4 China	181	89	70	22	3.62	3.34	3.14	3.62	3.34	3.71	3.75	3.39	2.10
	5 Japan	152	72	46	34	4.47	3.86	4.27	3.16	3.96	3.86	4.01	3.75	2.55
	6 USA	115	47	43	25	3.50	3.31	3.13	2.73	3.54	3.63	3.70	3.58	4.42
	7 Australia	102	46	27	29	3.89	3.98	4.04	2.84	3.77	3.65	4.09	3.61	4.28
	8 Canada	92	41	23	28	3.82	3.68	3.83	2.76	3.80	3.57	3.68	3.54	4.37
	9 Singapore	86	25	48	13	3.70	3.49	4.08	3.01	3.76	3.42	3.37	3.37	3.90
	10 France	79	34	25	20	4.00	3.42	3.25	2.58	3.72	3.90	3.77	3.73	3.11
	11 UK	77	36	28	13	3.25	3.19	3.35	2.60	3.51	3.60	3.74	3.43	4.45
	12 Italy	65	24	20	21	4.05	3.52	3.35	2.57	3.77	3.86	3.89	3.69	3.06
	13 Malaysia	63	26	28	9	3.90	3.79	3.73	3.14	3.76	3.40	3.48	3.30	3.41
	14 Switzerland	50	15	14	21	3.80	3.88	4.00	2.64	3.86	3.60	4.08	3.78	3.70
	14 Vietnam	50	19	18	13	3.84	3.60	3.74	3.42	3.76	3.72	3.54	3.36	2.42
	16 Germany	36	18	13	5	3.89	3.56	3.53	2.67	3.89	3.92	3.83	3.56	3.67
	17 NewZealand	33	13	6	14	3.88	4.00	4.03	2.91	3.94	3.61	3.97	3.79	4.24
	18 Philippines	30	11	12	7	3.50	3.70	3.37	3.33	3.73	3.30	3.40	3.27	3.63
	19 Spain	26	8	7	11	3.81	3.62	3.31	3.08	3.88	4.00	3.81	3.54	3.19
	20 Netherlands	20	12	6	2	3.50	3.50	3.85	2.70	3.95	3.65	4.00	3.70	3.80

Table 6(b). Breakdown of the ratings by three social groups

Destination	Ordinary people									Students									Wealthy people									
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A1	A2	A3	A4	A5	A6	A7	A8	A9	A1	A2	A3	A4	A5	A6	A7	A8	A9	
International destination ranking to visit on the next trip	1 Taiwan	4.02	3.57	3.94	3.42	3.87	3.69	3.72	3.36	2.41	4.06	3.68	3.96	3.29	3.98	3.56	3.53	3.38	2.38	4.15	3.93	4.12	3.44	3.93	3.68	3.83	3.56	2.63
	2 S. Korea	3.95	3.41	3.86	3.23	3.54	3.52	3.75	3.30	2.48	3.95	3.65	3.97	2.96	3.86	3.65	3.51	3.42	2.35	3.95	3.84	4.14	3.43	3.78	3.81	3.81	3.68	2.59
	3 Thailand	3.91	3.61	3.49	3.62	3.68	3.49	3.58	3.51	2.49	3.97	3.68	3.85	3.06	3.90	3.61	3.43	3.42	2.49	4.00	3.86	3.90	3.55	3.79	3.45	3.45	3.45	2.66
	4 China	3.74	3.21	3.20	3.47	3.26	3.66	3.78	3.30	2.04	3.40	3.41	3.04	3.97	3.44	3.74	3.67	3.46	2.10	3.86	3.59	3.18	3.14	3.32	3.82	3.86	3.50	2.36
	5 Japan	4.42	3.75	4.19	3.22	3.74	3.67	4.08	3.61	2.71	4.61	3.93	4.28	2.70	4.00	4.15	3.96	3.93	2.48	4.38	3.97	4.41	3.68	4.38	3.88	3.94	3.79	2.32
	6 USA	3.47	3.26	3.11	2.85	3.43	3.53	3.72	3.47	4.36	3.44	3.23	3.07	2.33	3.67	3.74	3.67	3.79	4.70	3.64	3.56	3.28	3.20	3.52	3.64	3.68	3.44	4.04
	7 Australia	3.78	3.89	4.02	2.93	3.70	3.48	4.13	3.35	4.20	3.81	3.96	3.89	2.26	3.85	3.89	4.15	4.04	4.59	4.14	4.14	4.21	3.24	3.83	3.69	3.97	3.62	4.14
	8 Canada	3.68	3.51	3.80	2.80	3.66	3.51	3.66	3.46	4.32	3.96	3.83	3.74	2.09	3.96	3.61	3.65	3.65	4.83	3.89	3.82	3.93	3.25	3.89	3.61	3.75	3.57	4.07
	9 Singapore	3.64	3.36	4.16	3.24	3.76	3.48	3.48	3.44	3.72	3.73	3.54	4.02	2.83	3.77	3.35	3.29	3.33	4.04	3.69	3.54	4.15	3.23	3.69	3.54	3.46	3.38	3.69
	10 France	3.91	3.35	3.21	2.44	3.50	3.88	3.85	3.79	2.97	4.08	3.32	3.24	2.24	3.88	4.00	3.76	3.72	3.24	4.05	3.65	3.35	3.25	3.90	3.80	3.65	3.65	3.20
	11 UK	3.19	3.03	3.39	2.64	3.53	3.42	3.53	3.31	4.56	3.18	3.32	3.14	2.29	3.43	4.00	4.07	3.71	4.54	3.54	3.38	3.69	3.15	3.62	3.23	3.62	3.15	4.00
	12 Italy	3.96	3.29	3.08	2.38	3.58	3.96	3.83	3.29	2.67	4.15	3.30	3.20	2.25	3.95	3.95	4.00	4.05	3.15	4.05	4.00	3.81	3.10	3.81	3.67	3.86	3.81	3.43
	13 Malaysia	4.00	3.85	3.58	3.31	3.58	3.46	3.62	3.27	2.92	3.79	3.79	3.93	2.96	3.89	3.32	3.36	3.32	3.96	4.00	3.67	3.56	3.22	3.89	3.44	3.44	3.33	3.11
	14 Switzerland	3.53	3.73	4.07	2.47	3.80	3.27	4.13	3.67	3.93	3.64	4.00	4.07	2.07	3.79	3.79	4.43	3.93	3.93	4.10	3.90	3.90	3.14	3.95	3.71	3.81	3.76	3.38
	14 Vietnam	3.89	3.37	3.74	3.53	3.84	3.63	3.53	3.16	2.16	3.67	3.56	3.56	3.44	3.67	3.83	3.50	3.50	2.50	4.00	4.00	4.00	3.23	3.77	3.69	3.62	3.46	2.69
	16 Germany	3.83	3.50	3.56	2.61	3.89	3.94	3.89	3.44	3.50	3.92	3.54	3.54	2.62	3.77	3.92	3.85	3.77	3.85	4.00	3.80	3.40	3.00	4.20	3.80	3.60	3.40	3.80
	17 NewZealand	3.92	3.92	4.08	2.85	3.92	3.46	4.08	3.85	4.23	4.00	3.83	3.67	2.33	3.83	3.67	3.67	3.67	4.67	3.79	4.14	4.14	3.21	4.00	3.71	4.00	3.79	4.07
	18 Philippines	3.64	3.55	3.27	3.45	3.55	3.55	3.36	3.27	3.09	3.08	3.67	3.42	3.25	3.75	3.08	3.17	3.17	4.08	4.00	4.00	3.43	3.29	4.00	3.29	3.86	3.43	3.71
	19 Spain	3.63	3.38	3.00	2.75	3.63	3.75	3.88	3.00	3.00	3.86	3.71	3.43	3.00	4.14	4.57	4.29	4.29	3.57	3.91	3.73	3.45	3.36	3.91	3.82	3.45	3.45	3.09
	20 Netherlands	3.25	3.42	3.83	2.75	3.92	3.42	3.92	3.67	3.75	3.83	3.50	3.83	2.17	4.00	4.00	4.17	3.83	3.83	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.50

The rating on each of the nine tourism attributes according to Likert scale helps grasp the respondents' evaluation on each attribute of each destination (Table 6(a) &(b)). But, at this point, each cell cannot be automatically summed up to produce an average rating to holistically compare countries. The way to make the destination comparison possible is explained in detail in the Discussion section (see 4.6.1). Looking at Table 6(b), as previously mentioned, the three different social groups denote a quite similar tendency in rating. For example, they all highly appreciated Japan's food and safety attributes, and gave a lower

rating to English command of Asian countries including Japan. There is a little difference in rating among the three social groups. For instance, ordinary people and students, on the whole, gave a lower score on the cost attribute, while wealthy people did not care so much about the cost issue. This study focuses on examining Table 6(a), the collective (total) ratings, without the analysis by grouping.

4.4.4 Simple rating on tourism attributes according to Likert scale: Japanese destinations

Table 7(a). Rating on the nine tourism attributes of competing destinations within Japan

Destination	n of responses				Average attractiveness rating by three social layers i.e. ordinary people, students, and wealthy people (1=not at all attractive, 5=extremely attractive)								
	Total	Ordinary people	Students	Wealthy people	Tasty food (A1)	Climate (A2)	Safety (A3)	Cost (A4)	Friendly people (A5)	Interesting culture (A6)	Natural attraction (A7)	Interesting activities (A8)	English command (A9)
Hokkaido	597	230	255	112	4.31	3.39	4.10	2.81	3.91	3.68	3.83	3.60	2.26
Ranking of the Japanese destinations other than Hokkaido to visit on the next													
1 Tokyo	301	124	127	50	3.99	3.52	4.05	2.80	3.81	3.47	3.40	3.38	2.47
2 Kyushu	209	108	66	35	4.06	3.73	4.06	2.78	3.92	3.64	3.70	3.49	2.13
3 Kinki	209	77	107	25	4.07	3.67	4.08	3.01	3.88	3.76	3.77	3.61	2.42
4 Chubu	101	44	35	22	3.88	3.47	4.14	2.75	3.97	3.55	3.68	3.33	2.08
5 Okinawa	83	35	18	30	4.11	4.05	4.22	3.28	3.94	3.82	4.08	3.86	2.76
6 Kanto	82	25	50	6	3.80	3.41	4.05	2.64	3.94	3.67	3.52	3.44	2.04
7 Tohoku	72	30	19	23	3.82	3.39	4.15	2.90	4.13	3.69	3.67	3.44	2.17
8 Chugoku	42	16	20	6	3.88	3.36	3.98	2.52	3.95	3.67	3.57	3.57	2.07
9 Shikoku	35	12	5	18	4.14	3.91	4.49	3.20	4.11	3.83	4.20	3.66	2.60
10 Tokai	12	4	3	5	4.17	3.83	4.25	3.25	4.08	3.92	3.58	3.92	2.58

Table 7(b). Breakdown of the ratings by three social groups

Destination	Ordinary people									Students									Wealthy people								
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A1	A2	A3	A4	A5	A6	A7	A8	A9	A1	A2	A3	A4	A5	A6	A7	A8	A9
Hokkaido	4.18	3.40	4.04	2.88	3.83	3.59	3.84	3.48	2.25	4.47	3.20	4.02	2.51	3.91	3.75	3.85	3.72	2.07	3.73	3.66	3.65	3.53	3.58	3.45	3.36	3.15	2.67
Ranking of the Japanese destinations other than Hokkaido to visit on the next																											
1 Tokyo	4.02	3.47	4.01	2.86	3.74	3.42	3.43	3.25	2.43	3.89	3.45	4.03	2.54	3.83	3.50	3.31	3.43	2.50	4.16	3.86	4.20	3.32	3.94	3.52	3.54	3.56	2.48
2 Kyushu	3.98	3.67	3.96	2.81	3.85	3.60	3.76	3.43	2.10	4.21	3.74	4.00	2.47	3.95	3.67	3.62	3.56	2.02	4.00	3.89	4.46	3.29	4.09	3.71	3.69	3.54	2.46
3 Kinki	4.14	3.84	4.22	3.27	3.84	3.74	3.90	3.51	2.60	4.03	3.53	4.03	2.77	3.90	3.83	3.72	3.71	2.23	4.00	3.72	3.84	3.24	3.92	3.48	3.56	3.48	2.68
4 Chubu	3.93	3.45	4.07	2.64	3.91	3.52	3.80	3.27	2.02	3.74	3.20	4.06	2.46	3.97	3.54	3.51	3.29	1.80	4.00	3.91	4.41	3.45	4.09	3.64	3.73	3.50	2.64
5 Okinawa	4.17	4.11	4.14	3.26	3.80	3.71	4.03	3.63	2.83	4.06	4.00	3.94	3.00	3.83	4.11	4.50	4.28	2.83	4.07	4.00	4.47	3.47	4.17	3.77	3.90	3.87	2.63
6 Kanto	3.96	3.44	4.12	2.88	3.88	3.76	3.52	3.40	2.04	3.70	3.36	3.96	2.46	3.92	3.56	3.48	3.42	2.00	4.00	3.67	4.50	3.17	4.33	4.17	3.83	3.83	2.33
7 Tohoku	3.73	3.27	4.07	2.80	4.13	3.63	3.73	3.47	1.93	3.79	3.21	4.05	2.68	3.95	3.53	3.42	3.37	2.11	3.96	3.70	4.35	3.22	4.26	3.91	3.78	3.48	2.52
8 Chugoku	3.81	3.25	3.88	2.56	3.81	3.56	3.38	3.31	2.00	3.90	3.25	3.95	2.35	4.05	3.65	3.70	3.75	1.95	4.00	4.00	4.33	3.00	4.00	4.00	3.67	3.67	2.67
9 Shikoku	4.08	3.83	4.42	2.58	3.92	3.67	3.92	3.50	2.50	4.40	4.00	4.40	3.40	4.20	4.20	5.00	4.00	2.60	4.11	3.94	4.56	3.56	4.22	3.83	4.17	3.67	2.67
10 Tokai	4.00	3.75	4.50	3.25	4.00	4.00	4.25	4.25	2.50	4.00	3.67	4.33	3.00	4.00	3.67	3.33	4.00	2.67	4.40	4.00	4.00	3.40	4.20	4.00	3.20	3.60	2.60

Looking at Table 7(b), just like the case of international comparison, the ways that the three social groups' evaluation of the attributes that Japanese destinations have are quite similar to each other. So, Japan's national comparison also focuses on the collective (total) ratings (Table 7(a)). Most of the Japanese destinations gained a high evaluation on their attributes of food, safety, and friendly people. In contrary, almost of all the Japanese destinations received a low evaluation on the attributes of cost and English command. On the whole, it can be said that the respondents had a good image about the Japanese destinations. However, their evaluation of each of the Japanese destinations is quite similar. This might indicate that they

cannot distinguish the difference among Japanese destinations.

4.4.5 Words or phrases to express Hokkaido's image

Table 8. Words/phrases to express Hokkaido's image

Category	Word/Phrase	Frequency
Winter related	Snow	223
	Skiing	219
	Cold/Coldness/Below-zero-temp./Ice	73
	Winter	64
	Snow festival	48
	White color	24
	Cool/Cool climate	10
	Total	661
Shopping & tourism spots related	Tourist cities i.e. Sapporo, Furano, Otaru, Hakodate, Yubari, Noboribetsu	107
	Hot spring/Spa	84
	Shopping	83
	Horse oil	35
	Total	309
Food related	Seafood/Crab/Scallop/Seaweed/Fishery	75
	Dairy products/Milk/Ice-cream	62
	Food/Food-related adjectives i.e. great, delicious, various, good, quality, reliable	53
	Eating	29
	Sweets/Chocolate/Cookies/Candies/White-lovers	19
	Fruits/Melon/Honey-dew	17
	Noodle	12
	Sushi	10
	Vegetable/Rice/Potato	7
Total	284	
Scenery related	Scenery/Scenery-related adjective i.e. beautiful, natural, green, rural, country, idyllic	67
	Farm/Farmer/Ranch/Agriculture/Cattle/ Sheep/Cow	55
	Lavender	53
	Sightseeing	20
	Mountains/Woods/Forest	18
	Flowers/Flower garden	15
	Nightview	14
	Sea/Seaside	14
Total	256	
Holiday related	Sports/Golf/Cycling/Running/Climbing/Horse-riding	61
	Holiday/Vacation	50
	Driving	6
	Total	117
Adjectives to express Hokkaido	Relax/Healing	14
	Clean/Tidy	13
	Quiet/Silent	10
	Fresh/Fresh air	10
	Good	10
	Happy/happiness	7
	Enjoyable/Joyful	7
	Friendly	6
	Total	77

Table 8 indicates the results of the open-ended question asking, “What is the word or phrase that pops into your head when you hear the word, Hokkaido?” Five or less frequent words were dropped out of the table. The words and phrases that appeared most frequently are related to winter: snow, skiing, cold, a snow festival, white color, etc. This means that the respondents had very strong impression on Hokkaido's winter climate, whether they liked or

disliked, and also might positively or even negatively affect Hokkaido’s image. The second most frequent words are related to tourism spots including shopping and hot spring. This expresses well the overview of the current Hokkaido tourism: it is now shifting from the conventional tourism style that depends on mass tourism including visiting well-known scenic spots and hot springs to the new tourism form that includes more independent travelers who enjoy visiting both rural and urban on their own. The third most frequent words are associated with eating, including a variety of Hokkaido-made products including its dairy products, sweets, fruits, vegetables, noodles, seafood, etc. This probably reflects a high appreciation on Hokkaido-made food from the respondents. The fourth most frequent words are about Hokkaido’s beautiful scenery, including idyllic agricultural landscapes, night-views, flower gardens, mountains, forests, etc. The others are words and phrases, including adjectives, to describe Hokkaido as a relaxing holiday destination.

4.4.6 Typical Hokkaido-made food

Table 9. Typical Hokkaido-made food popped up in respondents’ mind

Food items	Frequency
Dairy products/Milk/Ice-cream/Cheese/Yoghurt	396
Sweets/Chocolate/Cookies/Candies/Cake/Biscuits	206
Seafood/Crab/Scallop/Seaweed/Sea cucumber/Abalone/Uni	194
Vegetable/Rice/Potato/Corn	172
Fruits/Melon/Honey-dew/Honey-peach/Strawberry/Cherry	149
Egg	41
Beef	38
Noodle	17
Sushi	17

Table 9 indicates the results of the open-ended question asking, “What is the word or phrase that pops into your head when you hear the word, Hokkaido-made food?” Sixteen or less frequent words were dropped out of the table. The top is dairy products including milk, ice-cream, cheese, and yoghurt. This is evidence that the image of “Milkland Hokkaido” is widespread in the Hong Kong society. The results show that 25 percent to 35 percent of the respondents raised sweets, seafood, vegetables, and fruits. Although the frequency is not so high, egg, beef, noodles, and sushi are also put down. All of the listed-up food items have long functioned as food attraction in Hokkaido tourism.

4.4.7 Activities in Hokkaido

Table 10. Respondents’ most wanting activities in Hokkaido

I would like to do most	frequency	% of respondents (n=597)
Gourmet tour: enjoying a top-quality seasonal dish in each region of Hokkaido	540	90%
Sightseeing on scenic spots	343	57%
Hot springs	337	56%
Shopping	279	47%
Winter sports (e.g. skiing, snowboarding, skating, snow-trekking, airboarding, snowmobile riding, etc.))	243	41%
Sports in green season (e.g. rafting, kayaking, trekking, climbing, horse riding, cycling, golf, etc.)	185	31%
Driving in green season	137	23%
Visiting the zoo/aquarium	136	23%
Farm experience	135	23%
Learning about the history and culture of Hokkaido including Ainu culture	111	19%
Ecotourism (attending an environmental interpretive program)	47	8%

The activity that the most respondents (90%) would like to do in Hokkaido is the gourmet tour – enjoying a top-quality seasonal dish in each region of Hokkaido (Table 10). The second most wanting activities include sightseeing at the scenic spots (57%), visiting hot spring facilities (56%), and shopping (47%). This result is consistent with the result of 4.5.5, and expresses well the overview of the current Hokkaido tourism. The third most wanting activities are doing sports: the interest in winter sports is 41%, and that in summer sport is 31%. Regarding driving, visiting the zee/aquarium, farm experience, and learning Hokkaido’s history and culture, about 20 percent of the respondents showed their interest. Only 8 percent indicated their interest in eco-tourism.

4.5 Discussion

4.5.1 Approaching to the real image by weighting with the importance degree of criteria in choosing a destination

How to calculate and how to judge its legitimacy

The way of measuring a destination image has caused a lot of controversies (Kock et al., 2016), and yet an ultimate way has not found. This study thought that, to figure out the true respondents’ evaluation on a certain destination, their importance degree of criteria in choosing a destination should be respected and incorporated into their rating on the tourism

attributes of the destination. For example, let's say that Respondent Alpha rated 5 and Beta rated 1 on the food attribute of Hokkaido destination. Beforehand, Alpha had put 5 on the criterion of food in choosing a destination because food was important for him, but, on the contrary, Beta had put 1 on the same criterion. In this case, Alfa's opinion should be more respected than that of Beta in the calculation of the true evaluation on the food attribute of Hokkaido destination. The calculation formula reflecting this way of thinking can be expressed as follows:

$$\text{Weighted averaged rating} = \frac{\sum C_i A_i}{\sum C_i}$$

C_i = importance degree of criterion in choosing a destination (1 – 5)

A_i = original rating on tourism attribute of a destination (1 – 5)

i = individual respondent (1 – 597)

Example of calculation of weighted averaged rating on the food attribute of Hokkaido destination:

	Alpha	Beta
Importance degree of food in choosing a destination	5	1
Rating on food attribute of Hokkaido	5	1

$$\text{Simple averaged rating} = \frac{5+1}{2} = 3.0$$

And

$$\text{Weighted averaged rating} = \frac{5 \times 5 + 1 \times 1}{5+1} = 4.3$$

In this study, the weighted averaged rating of 4.3 is considered to be closer to the real image of Hokkaido's food attribute than the simple averaged rating of 3.0. Further advancing this way of weighted averaged rating, this study attempted to calculate the holistic image of a destination. Let's say that there were only two tourism attributes in Hokkaido destination: food and English command, and the collective responses are as indicated as the below box. Then, the holistic image of Hokkaido destination can be calculated as follows:

Example of calculation of the holistic image of Hokkaido destination:

	Food	English command
Importance degree in choosing a destination	5	1
Rating on tourism attribute of Hokkaido	5	1

$$\text{Simple averaged rating} = \frac{5+1}{2} = 3.0$$

And

$$\text{Weighted averaged rating} = \frac{5 \times 5 + 1 \times 1}{5 + 1} = 4.3$$

Which numerical value should be employed to express the holistic image of Hokkaido destination? It is possible to adopt 3.0 including the rating of English command that is not important for respondents. It is also possible to employ 5.0, focusing only on food that is the most important criterion for respondents. This study, however, employed the weighted average rating of 4.3. To see if this way is appropriate or not, it is necessary to compare the simple rating and the weighted rating again through using the data actually collected from the Hong Kong respondents. Let's see a part of the Taiwan's case.

	Food attribute			English command attribute	
Original simple rating	4.05	-	1.63	-	2.42
	↓				↓
	0.01				0.02
	↓				↓
Weighted rating	4.06	-	1.62	-	2.44

Slightly changed

Remained to be big

Looking at the difference between the weighted rating and the original simple rating, the value of each rating (the value of each cell in the table) has slightly changed, and the difference between attributes has remained to be almost the same. The same things are seen in the other relations between each attribute rating calculated by weighting. From this result, it seems possible to calculate the overall rating of a destination by summing up all the ratings of the nine attributes.

Comparison of countries based on the overall ratings

Table 11. International Comparison of destinations after weighting

Destination	n	Overall rating after weighting	Tasty food (A1)	Climate (A2)	Safety (A3)	Cost (A4)	Friendly people (A5)	Interesting culture (A6)	Natural attraction (A7)	Interesting activities (A8)	Understanding of English (A9)	
Int'l averaged rating	2103	3.64	3.90	3.63	3.74	3.10	3.79	3.68	3.73	3.54	3.05	
International destination ranking to visit on the next trip	1 Taiwan	332	3.73	4.06	3.67	3.98	3.37	3.94	3.65	3.66	3.43	2.44
	2 S. Korea	266	3.66	3.96	3.62	3.96	3.11	3.76	3.65	3.67	3.48	2.46
	3 Thailand	248	3.64	3.96	3.68	3.72	3.31	3.83	3.56	3.50	3.48	2.53
	4 China	181	3.51	3.63	3.36	3.14	3.66	3.38	3.75	3.78	3.41	2.13
	5 Japan	152	3.97	4.49	3.91	4.29	3.15	4.05	3.96	4.05	3.82	2.57
	6 USA	115	3.38	3.50	3.32	3.11	2.68	3.56	3.63	3.73	3.58	4.43
	7 Australia	102	3.77	3.94	4.02	4.05	2.85	3.79	3.71	4.13	3.65	4.28
	8 Canada	92	3.61	3.82	3.71	3.84	2.69	3.85	3.59	3.73	3.57	4.35
	9 Singapore	86	3.54	3.72	3.50	4.09	2.96	3.77	3.42	3.39	3.40	3.92
	10 France	79	3.57	4.02	3.45	3.26	2.58	3.78	3.93	3.80	3.77	3.14
	11 UK	77	3.36	3.29	3.16	3.39	2.62	3.55	3.66	3.75	3.51	4.46
	12 Italy	65	3.61	4.05	3.53	3.37	2.56	3.82	3.89	3.91	3.77	3.10
	13 Malaysia	63	3.59	3.91	3.81	3.73	3.14	3.79	3.42	3.48	3.32	3.39
	14 Switzerland	50	3.74	3.81	3.87	4.00	2.65	3.90	3.72	4.12	3.80	3.71
	14 Vietnam	50	3.64	3.83	3.59	3.74	3.45	3.78	3.73	3.55	3.39	2.42
	16 Germany	36	3.64	3.90	3.58	3.56	2.69	3.90	3.95	3.83	3.70	3.65
	17 New Zealand	33	3.79	3.88	4.02	4.04	2.88	3.95	3.64	4.02	3.82	4.25
	18 Philippines	30	3.46	3.50	3.71	3.36	3.35	3.74	3.29	3.40	3.25	3.68
	19 Spain	26	3.66	3.83	3.67	3.31	3.03	3.91	4.03	3.83	3.62	3.25
	20 Netherlands	20	3.60	3.50	3.49	3.85	2.73	3.94	3.63	4.04	3.70	3.84

Table 11 (international comparison) and Table 12 (comparison within Japan) show the results of weighting each rating of Table 6 with the importance degree of criteria in choosing a destination. In this study, these results are considered to be closer to the real destination images that the respondents actually perceived.

English-speaking countries vs. Asian countries. Looking at Table 11, since English command is not important for most of the respondents in choosing a destination, the strength of English-speaking destinations does not contribute to raising their overall ratings. On the contrary, the weak point of Asian countries does not negatively affect their overall ratings. Respondents also did not give so much value to the criterion of natural attraction. This negatively affects the overall ratings of New Zealand, Switzerland, Australia, and the Netherlands whose original rating on the natural attraction attribute was high. In addition, the overall ratings of English-speaking destinations – Canada, USA, and the UK – that originally received lower ratings on the attributes of food, safety, and cost have become relatively lower because these attributes were the important criteria for the respondents in choosing a destination. On the contrary, for the majority of the respondents attached the highest value to the criterion of food in choosing a destination, the overall ratings of most of Asian destinations that originally gained a high rating on the food attribute has become relatively high.

Japan's destination image. By taking account of the importance degree of criteria in choosing a destination, Japan has received the highest overall rating in the international comparison. This is because, the respondents attached the highest value to the criteria of food and safety in choosing a destination, and because Japan originally received the highest ratings on both of these attributes. But, there is also a possibility that this might have happened due to question order effect. Japan also has received the highest rating on the attribute of friendly people because of the same reason. Furthermore, Japan has gained relatively higher ratings on the attributes of interesting culture and natural attraction. The two areas of most concern with regard to Japan's image are its relatively lower ratings on the attributes of cost and English command. However, this concern is not so serious for Japan because the rating of its cost exceeds the international averaged rating, and because English command is not so important for the majority of respondents.

Competitive countries based on each attribute. Further insight can be gained by examining Japan's ratings on the attributes in relation to the other countries identified by the respondents. The countries perceived to have a more attractive climate were Australia, New Zealand, and Japan. The countries with climates lower in attractiveness were the UK, USA, and China. Spain, Japan, Germany, France, and Italy were perceived to have more interesting culture, while Philippines, Singapore, and Malaysia received a rating lower than other countries on this attributes. In terms of safety, following Japan, Singapore, Australia, and New Zealand were more perceived to be attractive, while the group of countries perceived to be least attractive consisted of USA, China, and France. Except Taiwan, Thailand, China, Vietnam, and Philippines, all other countries were rated significantly less attractive in terms of cost. The countries perceived to have a better natural attraction were Australia, Switzerland, Japan, Netherlands, and New Zealand, while Singapore and Philippines were rated lowest on this attribute. Following Japan, the countries rated most attractive in terms of people were New Zealand, Taiwan, and Netherlands, while China, the UK and USA rated lower than most countries.

Similarities to Murphy's study. Interestingly, the findings indicated in the previous paragraph show some similarities to the results of Murphy's study (2000) that examined the backpackers' perception on tourism destinations. For example, both studies raise Australia as the country perceived to have a more attractive climate, and the UK as the country with climate lower in attractiveness. Also, both studies point Thailand as the country perceived to

be more attractive in terms of the cost attribute. There are some more similarities found between the two studies, relating to the images of tourism destinations. This fact reinforces the accuracy of the findings of this study. Unfortunately, Japan is not included in the countries that the respondents of Murphy's study (2000) specified as a tourism destination. This is probably because the respondents were limited to backpackers.

Inconsistency between the overall rating ranking and the destination ranking to visit on the next trip. The overall rating ranking is not consistent with the destination ranking to visit on the next trip. This is because, in addition to the nine attributes/criteria, individuals' affective appraisals would be included in destination decision making. Other than this, there might be some factors that would influence on the respondents' destination decision-making. Judging from the ranking of the destination to visit on the next trip, it is inferred that other factors would probably include distances and traveling-time. Although data indicated in Table 11 might have some lacks, it still succeeds in providing some insight to figure out Japan's strength and the weakness as a tourism destination.

National comparison of Japanese destinations

Table 12. Comparison of destinations within Japan after weighting

Destination	n	Overall rating after weighting	Tasty food (A1)	Climate (A2)	Safety (A3)	Cost (A4)	Friendly people (A5)	Interesting culture (A6)	Natural attraction (A7)	Interesting activities (A8)	Understanding of English (A9)	
Hokkaido	597	3.60	4.33	3.41	4.11	2.79	3.95	3.73	3.87	3.65	2.30	
Japan's averaged rating	1146	3.61	4.01	3.65	4.16	2.90	4.00	3.76	3.74	3.63	2.38	
Ranking of the Japanese destination other than Hokkaido to visit on the next trip	1 Tokyo	301	3.49	3.99	3.55	4.06	2.80	3.86	3.55	3.44	3.46	2.50
	2 Kyushu	209	3.54	4.07	3.75	4.07	2.75	3.95	3.68	3.72	3.50	2.16
	3 Kinki	209	3.64	4.09	3.68	4.09	3.01	3.92	3.82	3.81	3.68	2.48
	4 Chubu	101	3.47	3.89	3.47	4.17	2.72	3.98	3.58	3.71	3.36	2.10
	5 Okinawa	83	3.86	4.13	4.08	4.24	3.31	4.03	3.92	4.11	3.96	2.83
	6 Kanto	82	3.43	3.81	3.42	4.05	2.63	3.94	3.68	3.53	3.48	2.07
	7 Tohoku	72	3.52	3.83	3.39	4.17	2.87	4.13	3.72	3.70	3.47	2.20
	8 Chugoku	42	3.43	3.87	3.36	3.96	2.46	3.94	3.73	3.58	3.66	2.06
	9 Shikoku	35	3.84	4.15	3.92	4.50	3.14	4.15	3.94	4.20	3.74	2.64
	10 Tokai	12	3.82	4.24	3.93	4.25	3.30	4.09	3.98	3.60	3.98	2.75

Before describing Hokkaido's destination image, it was necessary to present the whole image of Japan. This was because the understanding of Hokkaido's destination image perceived by the respondents would change, depending on their whole image of Japan. As a result of the international comparison of tourism attributes, it was revealed that the respondents had an extremely good image of Japan as a tourism destination, giving the highest overall rating, although they put Japan on the fifth in the destination ranking to visit on the next trip. In line with the results of the international comparison, most of Japanese destinations, including

Hokkaido, receive very high ratings on the attributes of food and safety that the respondents attached the most importance to (Table 12). This means that there is much possibility that the respondents would visit Japanese destinations including Hokkaido in the near future. However, it is questionable whether they would choose Hokkaido from the competing Japanese destinations.

In the first place, it is not so sure if the respondents clearly distinguished the difference between Hokkaido and the other Japanese destinations. As mentioned in the Result section, their evaluation of each of the Japanese destinations was quite similar. If they had clearly distinguished the difference between Hokkaido and the other Japanese destinations, the situation could be worse because Hokkaido's overall rating is not so high, positioning on the fifth, and lower than the Japanese average overall rating (Table 12). Also, the ratings of Hokkaido's tourism attributes might have been biased since the respondents knew the researcher who conducted the survey came from Hokkaido. In any case, to be competitive, Hokkaido as a tourism destination will have to be differentiated from the competitors in Japan.

4.5.2 Correlation between overall rating and the rating of each attribute

Table 13. Correlation between overall rating and the rating of each attribute

	Tasty food	Climate	Safety	Cost	Friendly people	Interesting culture	Natural attraction	Interesting activities	English command
Correlation(R ²)	0.69	0.64	0.57	0.02	0.59	0.14	0.26	0.25	0.09
Slope	0.45	0.51	0.30	0.05	0.69	0.28	0.32	0.40	-0.06

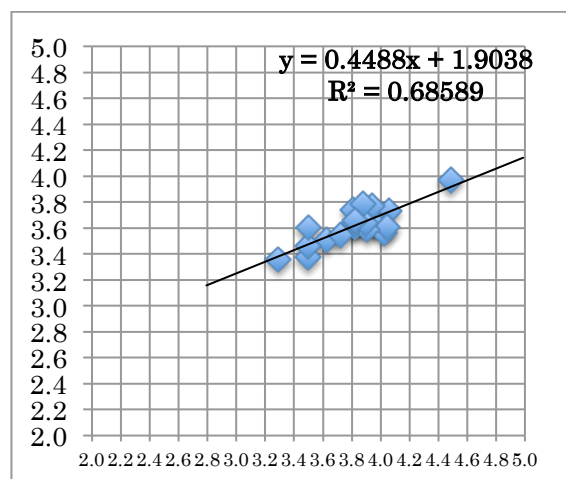


Figure 1. Overall rating vs. Food rating

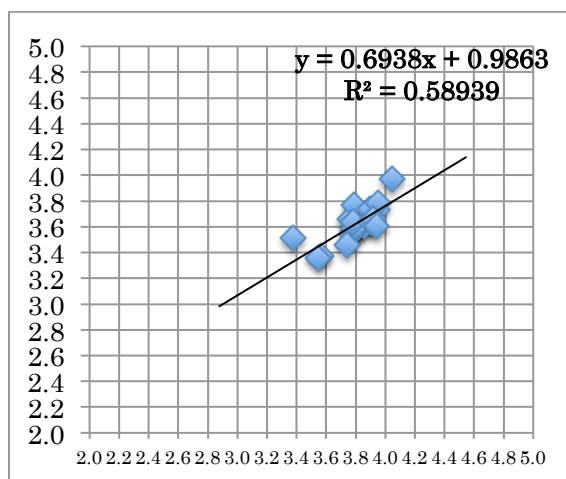


Figure 2. Overall rating vs. Friendly people

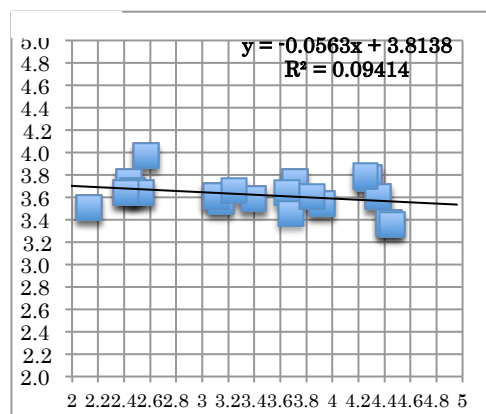


Figure 3. Overall rating vs. English command

It was revealed that there was correlation between overall rating and the ratings on some tourism attributes (Figure 1 & 2). Especially the attributes of food and friendly people are relatively strongly correlated to the overall rating. Accordingly, it is inferred that, if these two attributes improved, the overall rating would be able to proportionately enhance. This fact might serve as a useful reference when destination stakeholders are determining the direction of tourism development. However, the rating on the friendly people attribute does not vary widely among the 20 competing countries although the slope is big, which might mean that it is difficult to improve this attribute. As for the food attribute, the ratings distribute widely among the 20 competing countries. In addition, since this attribute straddles across the whole

tourism industry, it might be relatively easier to be improved. Food can be a driving force to enhance the whole image of a destination. In contrary, English command attribute is not correlated to the overall rating (Figure 3). This might mean that, even if destination people invested lots of human resources and energy into the improvement of English command, they would not be able to expect high returns. It is recommended for tourism stakeholders who are facing shortages of capital and human resources to, first of all, tackle with strengthening the attributes that are expected to produce higher returns.

4.5.3 Implications for differentiation in developing tourism in Hokkaido

The results imply that the key to differentiating Hokkaido tourism from the competitors might be related to its food attribute.

Form the open-ended questions about the images of Hokkaido and its food. The respondents described a variety of food items as the answer to the question about the image of Hokkaido and its food (Table 8 & 9). Although these items are categorized into some groups in Table 8 and 9, the respondents actually indicated many brand names covering specific food items. Especially the number of Hokkaido-made confectionery was remarkable. This is evidence that Hokkaido-made food items make a strong impression on the Hong Kong people, probably because of good taste and high quality. The interviews conducted in Hong Kong also revealed that there are a certain number of people who often buy Hokkaido-made items, especially regarding dairy products. This fact is consistent with the results of Table 9. The brand name, “Hokkaido-made”, functions to attract many Hong Kong consumers.

From the respondents’ most wanting activities in Hokkaido. The activity that ninety percent of the respondents want to do most in Hokkaido was to participate in a gourmet tour – enjoying a top-quality seasonal dish in each region of Hokkaido (Table 10). This is evidence that Hokkaido has earned a good reputation for its food in the Hong Kong society, and can be considered as encouragement allowing that Hokkaido stakeholders further develop food tourism.

4.6 Conclusion

This study, one sphere of GSES's action research approach to make Hokkaido tourism more sustainable, measured Japan's and Hokkaido's destination images perceived by Hong Kong people through analyzing the responses to the questionnaire conducted in Hong Kong from September to November 2016. The questionnaire employed the framework of Murphy's study (2000), a combination of structured and unstructured approaches. The structured approach asked for rating (1 to 5) on the nine predetermined tourism attributes of destinations and on the nine criteria in choosing a destination. The remarkable feature of this study was to incorporate the importance degree of criteria in choosing a destination into the ratings on tourism attributes, which enabled to calculate the overall ratings of the competing destinations towards the international comparison. This successfully identified the destinations with which Japan has to compete on important attributes as well as Japan's strength and weakness. The unstructured approach covered the shortage of the structured approach and provided unique or more holistic image elements which have important implications for developing promotional messages and advertising images.

The major practical implication of this study is identifying that food and safety are not only the most significant strength of most of the Japanese destinations including Hokkaido but also the most important criteria for the respondents in choosing a destination. The criteria following food and safety include, in descending order, friendly people, cost, natural attraction, comfortable climate, and interesting culture. Surprisingly, the respondents did not attach so much importance to English command and interesting activities when choosing a destination. These facts worked favorably to Japan, and consequently, Japan receives the highest overall rating in the comparison of the competing countries (New Zealand (2nd), Australia (3rd), Switzerland (4th), Taiwan (5th), S. Korea (6th), Spain (7th), Vietnam (8th), Thailand (9th), and Germany (10th) follow). However, this ranking of the overall ratings is not necessarily consistent with the ranking of the destination where the respondents want to visit on the next trip. Also, it might have happened due to the question order effect in the survey. Therefore, the highest overall rating that Japan gained should not be considered as the strongest saleable advantage in the international competition.

The detailed findings can not only contribute to the international literature of tourism study, but also enhance Hokkaido local stakeholders' understanding of their own tourism's potentiality. In this study, Hokkaido receives the highest rating on its food attribute

internationally and domestically although it was a bit questionable whether the respondents were able to distinguish the difference between Hokkaido and the other Japanese destinations. It also reveals that the food attribute is correlated with the overall rating, that a gourmet tour is the most popular Hokkaido's activity, and that a variety of Hokkaido-made food products have already gained a good reputation in Hong Kong. Taking account of all these findings, this study infers that the development of food tourism is the key to facilitate regeneration in Hokkaido.

Since this study is one sphere of GSES's action research approach to make Hokkaido tourism more sustainable, it is very important to report the results of this study to Hokkaido local stakeholders, obtain feedback from them, and think together to co-create the next research question. The study in this chapter covers only the perception of the people in Hong Kong, one of the primary source markets for Hokkaido tourism. Also, Hong Kong people's perception does not necessarily represent those of all international tourists to Hokkaido. Through close dialogues between GSES researchers and the stakeholders, the next target of the continual study will be determined. It might focus on researching a bigger sample of Hong Kong, or conducting a similar type of survey in other Asian countries.

References

- Alhemoud, A. M., & Armstrong, E. G. (1996). Image of tourism attractions in Kuwait. *Journal of Travel Research*, Spring, 76-80.
- Anand, P., Holbrook, M. B., & Stephens, D. (1988). The formation of affective judgments: The cognitive-affective model versus the independence hypothesis. *Journal of Consumer Research*, 15, 386-391.
- Baloglu, S., & Brinber, D. (1997). Affective images of tourism destination. *Journal of Travel Research*, 35(4), 11-15.
- Baloglu, S., & McCleary, K. W. (1999). A model of destination image formation. *Annals of Tourism Research*, 26(4), 868-897.
- Bigne, J. E., Sanchez, M. I., & Sanchez, X (2001). Tourism image, evaluation variables and after purchase behaviour: Inter-relationship. *Tourism Management*, 22(6), 607-616.
- Bramwell, B., & Lane, B. (2000). Tourism Collaboration and Partnerships. *Politics, Practices and Sustainability. Aspects of Tourism*. Channel View Publications.
- Chon, K. S. (1990). The role of destination image in tourism: A review and discussion. *Tourism review*, 45(2), 2-9.
- Cooper, C. (2006). Knowledge Management and Tourism. *Annals of Tourism Research*, 33(1), 47-64.
- Echtner, C. M., & Ritchie, J. R. B. (1991). The meaning and measurement of destination image. *The Journal of Tourism Studies*, 2(2), 2-12.
- Echtner, C. M., & Ritchie, J. R. B. (1993). The measurement of destination image: An empirical assessment. *Journal of Travel Research*, 31(4), 3-13.
- Echtner, C. M., & Ritchie, J. R. B. (2003). The meaning and measurement of destination image. *The Journal of Tourism Studies* 14(1), 37-48.

- Gallarza, M., G., Saura, I. G., & Garcia, H. C. (2002). Destination image - Towards a conceptual framework. *Annals of Tourism Research*, 29(1), 56-78.
- Higuchi, Y., & Yamanaka, Y. (2017a). Knowledge sharing between academic researchers and tourism practitioners: a Japanese study of the practical value of embeddedness, trust and co-creation. *Journal of Sustainable Tourism*, 8-18 (online published on 18 March 2017).
- Higuchi, Y., & Yamanaka, Y. (2017b). (2) Collaborative knowledge production development and action design between university researchers and local stakeholders in food tourism: a study of the practical value of tacit knowledge sharing. *Proceedings of BEST EN Think Tank XVII, 2017*.
- Hjalager, A. M. (1996). Agricultural diversification into tourism. Evidence of a European Community development programme. *Tourism Management*, 17(2), 103-111.
- Hokkaido Bureau of Economy, Trade and Industry. (2015). 2017 Report about Hokkaido Tourism towards Enhancing International Competitiveness. Retrieved 30 June 2017 from <http://www.hkd.meti.go.jp/hoksr/20160314/>
- Hokkaido Government. (2017). Tourism Statistics. Retrieved from 30 June 2017 from <http://www.pref.hokkaido.lg.jp/kz/kkd/gaikokujinshukuhaku.htm>
- HTO (Hokkaido Tourism Organization). (2012). Business Report. Retrieved 30 June 2017 from https://www.visit-hokkaido.jp/company/activity/pdf/24_project_report.pdf
- Hunter, C. (1997). Sustainable tourism as an adaptive paradigm. *Annals of Tourism Research*, 24(4), 850-867.
- ITmedia. (2016). Retrieved 30 June 2017 from <http://www.itmedia.co.jp/business/articles/1610/19/news095.html>
- Japan guide.com. (2016). Retrieved 30 June 2017 from <http://www.japan-guide.com/e/e2262.html>

- JICA (Japan International Cooperation Agency). (2017). Report on the Overview of Recent Hokkaido Tourism. Retrieved 30 June 2017 from https://www.jica.go.jp/sapporo/enterprise/survey/ku57pq00000epj5a-att/Regional&Industrial-Promotion-Study_2016_ja.pdf
- JTA (Japan Tourism Agency). (2016). Policy for Promoting Visit Japan. Retrieved 30 June 2017 from http://www.mlit.go.jp/kankocho/news03_000155.html
- Kaupila, P., Saarinen, J., & Leinonen, R. (2009). Sustainable Tourism Planning and Regional Development in Peripheries: A Nordic View. *Scandinavian Journal of Hospitality and Tourism*, 9(4), 424-435.
- Kock, Florian., Josiassen, A., & Assaf, A. G. (2016). Advancing destination image: The destination content model. *Annals of Tourism Research*, 61, 28-44.
- Lean, G., Staiff, R., & Waterton, E. (2014). Reimagining travel and imagination. In G. Lean, R. Staiff, & E. Waterton (Eds.), *Travel and imagination* (pp. 1-14). Farnham: Ashgate.
- Lew, A. A. (1987). A framework of tourist attraction research. *Annals of Tourism Research*, 14, 553-575.
- Moscardo, G. (2008). Sustainable tourism innovation: Challenging basic assumptions. *Tourism and Hospitality Research*, 8(1), 4-13.
- Murphy, L. (2000). Australia's Image as a Holiday Destination-Perceptions of Backpacker Visitors. *Journal of Travel & Tourism Marketing*, 8(3), 21-45.
- Pyo, S. (2012). Identifying and prioritizing destination knowledge needs. *Annals of Tourism Research*, 39(2), 1156-1175.
- Ramkissoon, H., & Uysal, M. S. (2011). The effects of perceived authenticity, information search behaviour, motivation and destination imagery on cultural behavioural intentions of tourists. *Current Issues in Tourism*, 14(6), 537-562.

- Scarpato, R. (2002). Sustainable gastronomy as a tourist product. In A. M. Hjalager, & G. Richards (Eds.). *Tourism and Gastronomy*. London: Routledge
- Shaw, G., & Williams, A. (2009). Knowledge transfer and management in tourism organisations: An emerging research agenda. *Tourism Management*, 30(3), 325-335.
- Stabler, M. J. (1995). The image of destination regions: Theoretical and empirical aspects. In Goodall, B., & Ashworth, G. (Eds.), *Marketing in tourism industry: The Promotion of destination regions* (pp. 133-159). London: Routledge.
- Stern, E., & Krakovers, S. (1993). The formation of a composite urban image. *Geographical Analysis*, 25(2), 130-146.
- Tasci, A. D. A., & Gartner, W. C. (2007). Destination image and its functional relationships. *Journal of Travel Research*, 45(4), 413-425.
- Tovey, H., & Mooney, R. (2006). Sixth Framework Programme Priority 7. Citizens and Governance in a Knowledge Based Society. Project CORASON. Proposal nr 506049 Final Report. Trinity College Dublin. Retrieve 30 June 2017 from http://www.corason.hu/download/final_report.pdf
- Walmsley, D. J., & Young, M. (1998). Evaluative images and tourism: The use of personal constructs to describe the structure of destination images. *Journal of Travel Research*, 36, 65-69.

Chapter 5 General Conclusion

5.1 Summaries of Chapter 2, 3, and 4

This study endeavors to suggest what kind of roles academic researchers should play in making tourism more sustainable through describing in detail about innovation outcomes, obstacles, and learnings that GSES researchers have encountered when sharing practices with tourism stakeholders. It also mentions the potentiality of action research approach in knowledge transfer, sharing, and management.

5.1.1 Chapter 2: Practical value of embeddedness, trust, and co-creation

Chapter 2 articulates the value of embeddedness and trust that GSES researchers fostered through co-creation practices with the staff members of Hoshino Resorts, a major international Japan based owner and operator of inns and resorts.

Nature-based tourism (NBT) practitioners urgently need to develop more and better quality products through including the findings of tourism and other scientific researchers. However, in many cases, NBT enterprises do not have enough resources to invest in building a sustainable relationship with such researchers. The study of Chapter 2 reports on the long-term involvement of academic researchers in value co-creation – producing a new value in tourist experiences – jointly with tourism practitioners, encouraging significant and innovative NBT outcomes. It articulates how knowledge sharing was achievable between these parties in their shared practices, focusing on the importance of tacit knowledge sharing. A case study approach was complemented by long-term monitoring from 2011 to 2015; data was collected by interview and participant observation and qualitatively analyzed. The results vividly depict that the key factor for effective tacit knowledge sharing and long-term co-creation is largely related to embeddedness, and also to trust, long-term partnerships, and the creation of win-win situations for all sides. Although limited to one set of actors and one socio-cultural context, one Japanese university and one enterprise, this study pioneers empirical research on the relationships between co-creation, knowledge sharing, and embeddedness in sustainable tourism that could be replicated in other situations.

5.1.2 Chapter 3: Attempt of fostering an embedded relationship in a different context

Chapter 3 describes the first step of GSES's action research approach in food tourism of the Kamikawa region, the knowledge needs analysis. This study was, in a way, tackled to provide an additional comparative case to the research conducted in Chapter 2. Theoretically and empirically, the study tries to illustrate that building trust and embeddedness are the keys for researchers to achieve a long-lasting relationship even with a local network consisting of multiple small business owners.

When it is adeptly managed with proper knowledge, food tourism has the potential to strengthen a community's identity, enhance appreciation of the environment, and encourage the regeneration of local heritage and the economy. In the study of Chapter 3, GSES researchers have endeavored to illuminate how their interventions may affect the innovation process of food tourism. This study specifically started in April 2016, and is still ongoing. This chapter is an interim report about the first eight months, and aims to articulate how the early co-creation process between GSES researchers and Kamikawa stakeholders was achieved. The author, GSES researcher, took an action research approach and has positively gotten involved in the local network activities. This greatly helped them to build a trust relationship with local stakeholders and facilitate their knowledge needs analysis by interview and participant observation. As a result, it was revealed that, although local stakeholders had witnessed the rapid increase of independent Asian travelers, they did not know how to capitalize on this opportunity due to a lack of knowledge. The key stakeholders and the researchers collaboratively convened a forum to raise awareness of the contribution of food tourism. The preparation period for this worked to disseminate knowledge. The questionnaire after the forum told that the image of researchers perceived by the stakeholders affirmatively changed.

5.1.3 Chapter 4: Measurement of the images of Japan and Hokkaido

Chapter 4 reports the results of measuring the destination images of Japan and Hokkaido perceived by the Hong Kong respondents of the questionnaire survey. As one sphere of an action research approach, this study was conducted to provide Hokkaido local stakeholders with the research-led evaluation, which was expected to show the practical effectiveness of academic researchers in supporting the tourism development.

The importance of measuring a tourism destination's image is universally acknowledged because the image plays a fundamental role in the success of the destination in the tourism market. The questionnaire survey was implemented in Hong Kong from September to November 2016, and nearly six hundred responses were successfully collected. The data were organized into tables and quantitatively and qualitatively analyzed. The remarkable feature of this study was to incorporate the importance degree of criteria in choosing a destination into the ratings on tourism attributes, which enabled to calculate the overall ratings of the competing destinations towards the international comparison. The major practical implication of this study is identifying that food and safety are not only the most significant strength of most of the Japanese destinations including Hokkaido but also the most important criteria for the respondents in choosing a destination. Surprisingly, the respondents did not attach so much importance to English command and interesting activities when choosing a destination. The study in this chapter covers only the perception of the people in Hong Kong, one of the primary source markets for Hokkaido tourism. Also, Hong Kong people's perception does not necessarily represent those of all international tourists to Hokkaido. The continual study is required with bigger sample.

5.2 Who has to take a leading role in making tourism more sustainable?

Academic researchers cannot be main actors to play in making tourism more sustainable. The main actors are private sector enterprises and tourists since most of the tourism impacts are the result of actions taken by them. However, the researchers have a significant potentiality to support the tourism stakeholders to develop pro-sustainability behavior through research and education as explained in detail in Chapter, 2, 3, and 4.

UNWTO states in 'Making Tourism More Sustainable (UNWTO & UNEP, 2005)' that there is a clear need for governments to take a leading role if truly significant progress is to be achieved in making tourism more sustainable. Why is this governments' task? Because the tourism industry is very fragmented and it is difficult for the individual actions of many micro and small businesses to make a positive difference. In reality, however, the concept of sustainable tourism has not permeated enough through the tourism industry including enterprises, visitors, and even local governments although it has been over ten years since this guideline was published. Why is it so difficult to make tourism more sustainable? The guideline mentions the path to achieve sustainable tourism as follows:

Achieving sustainable tourism is a continuous process and it requires constant

monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary. Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them.

However, budget-wise and human-resources-wise, it seems extremely difficult for rural municipal governments to take initiatives in these tasks. As mentioned in detail in Chapter 2 and 3, providing knowledge users – tourism practitioners – with monitoring and training when necessary are required to take long time, spend lots of energy, and, above all, have considerable amount of scientific knowledge as well as interpersonal, communication, organization skills. These prerequisites make the government officials almost impossible to supervise tourism practices.

This study argues that universities, especially those for natural sciences, should positively engaged in the activities to make tourism more sustainable since they are the producer of scientific knowledge and equipped with analytical skills to reflect on. Above all, they can behave altruistically toward the public good, free from the market principles. Lane (2009) points out that, to achieve this, however, a new generation of highly skilled researchers is needed. He insists that those researchers have to get away from the shyness peculiar to the world within ivory tower and possess a thick but sensitive skin to:

- engage and work with the tourism industry,
- engage the problems of governance and regulation,
- research market beliefs and new forms of marketing,
- research the role of the media industry in opinion forming, and
- use the ideas developed in the social sciences to explore decision making, and social trends.

He also argues that, since academics created the concept of sustainable tourism, they should learn how to implement it, they should gather evidence of how to best do that, they must communicate those skills. Through introducing Chapter 2, 3, and 4, this study strongly agrees with his argument.

5.3 Remarks

This paper has introduced only two sample cases that academic researchers positively got involved in the tourism practices to make them more sustainable. Obviously, there is no

reason to assume that these cases are generalizable to other countries or to other functional areas. However, they possibly represent a good starting point of empirical research on the relations between tourism stakeholders and a new type of researchers who positively participate in tourism practice through action research approach. Therefore, while continuing to observe the cases reported in this paper, the next step will be an endeavor to conduct more empirical research projects with much larger samples, hoping that the argument of this paper will be further bolstered. Also, if the number of advocates to the argument of this paper increases, tourism, not limited to Hokkaido tourism, will be consequently more sustainable.

References:

Lane, B. (2009). 30 years of Sustainable Tourism: Drivers, Progress, Problems - and the Future, pages 19-32 in S. Gössling, M.C. Hall, S. Page, & D. Weaver, *Sustainable Tourism Futures: Perspectives on Systems, Restructuring and Innovations*. London: Routledge.

UNEP & UNWTO (United Nations Environment Programme and World Tourism Organization). (2005). *Making Tourism More Sustainable*. Retrieved 30 June 2017 from <http://www.e-unwto.org/doi/book/10.18111/9789284408214>

Appendices

Samples of Questionnaires:

- (1) The sample of the questionnaire mentioned in Chapter 3 is attached here. This was distributed to the main local stakeholder members who organized the October 2016 forum in order to learn whether they affirmatively accepted researchers' involvement in food tourism practices.
- (2) The sample of the questionnaire mentioned in Chapter 4 is attached here. This was distributed widely in Hong Kong from September to November 2016 to measure the images of Japan and Hokkaido perceived by the Hong Kong people.

(1) Sample of questionnaire of Chapter 3

Q1. What is your occupation?

- Government personnel
- Restaurant-related business
- Agricultural producer
- Other

Before the forum

Please tell us what impressions you had about academic researchers before the forum.

Q2. Did you perceive researchers to be distant and different from you?

- Strongly agree Agree Did not know Disagree Strongly disagree

Q3. Did you think that they would be equipped to facilitate the discussion about shared practice?

- Strongly agree Agree Did not know Disagree Strongly disagree

Q4. Did you think that researchers would explain things in a way that was easy to understand?

- Strongly agree Agree Did not know Disagree Strongly disagree

During the preparation period for the forum

Q5. Overall, were you satisfied with the collaboration with the GSES researchers?

- Very satisfied Satisfied Somewhat satisfied Not satisfied Very dissatisfied

Q6. How do you think GSES researchers contributed during the collaboration? Please check all that apply.

- They increased our breadth of understanding by contributing new knowledge.
- They facilitated our discussion.
- They helped us to achieve a consensus.
- They enhanced our interest to acquire new knowledge.
- Other

Q7. Were GSES researchers' wording and explanation easy for you to understand?

- Strongly agree Agree Did not know Disagree Strongly disagree

During the forum

Q8. Do you think that the forum was productive?

- Strongly agree Agree Did not know Disagree Strongly disagree

Q9. Do you think that the researchers' presentation before the panel discussion, and their commentary during the free discussion, contributed positively to the forum?

- Strongly agree Agree Did not know Disagree Strongly disagree

After the forum

Q10. Now, do you perceive researchers to be distant and different from you?

- Strongly agree Agree Do not know Disagree Strongly disagree

Q11. Now, do you think that they are equipped to facilitate a discussion about shared practice?

- Strongly agree Agree Do not know Disagree Strongly disagree

Q12. Now, do you think that researchers explain things in a way that is easy to understand?

- Strongly agree Agree Do not know Disagree Strongly disagree

In the near future

Q13. If you could work with academic researchers again in the future, would you choose to do so?

- Strongly agree Agree Do not know Disagree Strongly disagree

Q14. In a future collaboration, how would you like the academic researchers to participate?

- Help to shape the composition of the forum or workshop.
- Serve as a keynote speaker in the forum or workshop.
- Lecture to a small group of local stakeholders.
- Interact with local stakeholders on an ongoing basis.
- Other

Survey on Hong Kong People's Food Safety and Travel Decision-making 香港人對食品安全和旅遊決策問卷調查

Background Information

Overview

Thank you for taking the time to complete this survey. I am a PhD candidate at the University of Hokkaido, in Japan.

Your assistance in completing this survey will help me to investigate the followings:

- The supply-and-demand issues related to food safety in Japan (the supplier side) and Hong Kong (the consumer side). In particular, your answers will allow me to understand the thoughts of Hong Kong consumers in relation to food safety and quality. **(Section B to E)**
- The supply-and-demand issues related to food tourism in Hokkaido, Japan, and in particular, the image that the Hong Kong consumers have about Hokkaido. **(Section F to G)**

Please note that all information is collected anonymously, and will be kept strictly confidential. It will be used only for scientific research purpose.

Required time

There are a total of 30 questions. I estimate it would require approximately 15 minutes to complete all questions.

I would be highly appreciative if you could respond in as much detail as your schedule allows.

If you have any inquiry about the research, please contact Yukari Higuchi via email y.higuchi@ees.hokudai.ac.jp.

背景資料

概要

感謝您抽空參與這項研究。本人是日本北海道大學博士候選人。

閣下的協助將有助於探討以下事項：

- B 至 E 部分是關於日本（供應端）及香港（消費端）對食品安全的供求問題。閣下的答案尤其會讓我了解香港消費者對食品安全及質量的意見。
- F 至 G 部分是關於日本北海道餐飲旅遊的供求問題，尤其是香港消費者對北海道的印象。

調查蒐集所得的一切個人資料將會嚴格保密，並只會用於是次科學研究。

所需時間

整份問卷共有 30 條問題，完成問卷需時約 15 分鐘。

若閣下時間充裕，煩請詳盡地填寫答案；您的積極參與對是次研究非常重要，我將不勝感激。

如閣下有任何疑問，請電郵 y.higuchi@ees.hokudai.ac.jp 與 Yukari Higuchi 聯絡。

Section A. Personal information (Demographic profile)

A 部分—個人資料（人口狀況）

1. *Your age?* 年齡

- 18 - 24
25 - 34
35 - 44
45 - 54
55 - 64
65 - 74
75 +

2. *Your gender?* 性別

- Male 男 Female 女

3. *Your current working status?* 目前的工作狀況

- Full-time employee 全職僱員
Part-time or contract employee 兼職或合約僱員
Corporate executive officer 行政總裁
Self-employed business owner 自僱人士
Full-time housewife or househusband 全職家庭主婦或主夫
Student 學生
Other 其他 ()

4. *Last grade or year of school that you have completed?* 學歷

I have completed/obtained 已完成或取得的學歷：

-
- Primary to Secondary Education 初中或以下
High School Graduate 高中
Diploma 文憑
University Graduate (i.e. Bachelor degree and or equivalent)
大學 (即學士學位或同等學歷)
Postgraduate (i.e. Master's and or Doctorate's degree)
研究生 (即碩士學位或博士學位)
Law degree or other professional degree 法學或其他專業學位

5. *The number of your household, including yourself?* 家庭人數 (包括自己)

- | | |
|----|--------------------------|
| 1 | <input type="checkbox"/> |
| 2 | <input type="checkbox"/> |
| 3 | <input type="checkbox"/> |
| 4 | <input type="checkbox"/> |
| 5 | <input type="checkbox"/> |
| 6 | <input type="checkbox"/> |
| 7+ | <input type="checkbox"/> |

6. *Children younger than 18 years old in your household?* 家中有否小於18歲的孩子?

Yes 有 No 沒有

7. *Family annual income before tax?* 家庭每年的稅前收入?

- | | |
|---|--------------------------|
| Less than HK\$300,000 少於港幣\$300,000 | <input type="checkbox"/> |
| HK\$300,000 - 499,999 港幣\$300,000 - 499,999 | <input type="checkbox"/> |
| HK\$500,000 - 699,999 港幣\$500,000 - 699,999 | <input type="checkbox"/> |
| HK\$700,000 - 899,999 港幣\$700,000 - 899,999 | <input type="checkbox"/> |
| HK\$900,000 - 999,999 港幣\$900,000 - 999,999 | <input type="checkbox"/> |
| HK\$1,000,000 - 1,199,999 港幣\$1,000,000 - 1,199,999 | <input type="checkbox"/> |
| HK\$1,200,000 + 港幣\$1,200,000 或以上 | <input type="checkbox"/> |

(Continued on the next page 下頁續)

Section B. Food Purchasing Patterns

B 部分－食品採購模式

8. *Including supermarket shopping and eating-out, how much money does your household spend monthly for food? 家庭每月的食品開支 (包括到超市購物和外出用膳)?*

- | | |
|---|--------------------------|
| Less than HK\$2000 少於港幣\$2000 | <input type="checkbox"/> |
| HK\$2,000 - 5,999 港幣\$2,000 - 5,999 | <input type="checkbox"/> |
| HK\$6,000 - 9,999 港幣\$6,000 - 9,999 | <input type="checkbox"/> |
| HK\$10,000 - 13,999 港幣\$10,000 - 13,999 | <input type="checkbox"/> |
| HK\$14,000 - 17,999 港幣\$14,000 - 17,999 | <input type="checkbox"/> |
| HK\$18,000 + 港幣\$18,000 或以上 | <input type="checkbox"/> |

9. *What type of food do you have for your breakfast, lunch, and supper? 您三餐的用膳模式? (Please tick one respectively for breakfast, lunch, and supper) (請於早、午、晚餐各選一項)*

	Eating out 外出用膳	Ready-made meal purchased from store 從商店購買預製食品	Homemade meal at home 在家烹調	No particular pattern 沒有特定模式
Breakfast 早餐	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch 午餐	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supper 晚餐	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. *What factor do you especially care when purchasing food? 您購買食物時會特別關心哪些因素? (Please choose up to three) (請選擇最多三項)*

- | | |
|--|--------------------------|
| Country of origin/production 原產/生產地 | <input type="checkbox"/> |
| Place of purchase (store) 購買地點 (商店) | <input type="checkbox"/> |
| Price 價錢 | <input type="checkbox"/> |
| Labeling (information about Ingredients) 標籤 (成分資料) | <input type="checkbox"/> |
| Freshness (expiration/use-by date) 新鮮 (到期/食用期限) | <input type="checkbox"/> |
| Taste 味道 | <input type="checkbox"/> |
| Appearance 外觀 | <input type="checkbox"/> |
| Nutrition/Calories 營養/卡路里 | <input type="checkbox"/> |
| Simplicity of cooking 烹調簡易度 | <input type="checkbox"/> |
| Nothing in particular 沒有特別因素 | <input type="checkbox"/> |
| Other 其他 () | <input type="checkbox"/> |

11. How often do you buy agricultural products that are grown organically or cultivated with a reduced amount of agricultural chemicals? 您多常購買有機或低化肥耕種的農產品？

(Please choose only one) (請只選一項)

- | | |
|--|--------------------------|
| Very often (everyday or most days) 常常購買 (每天或大多數日子) | <input type="checkbox"/> |
| Often (once or more per week) 經常購買 (每週一次或以上) | <input type="checkbox"/> |
| Sometimes (once or more per month) 有時購買 (每月一次或以上) | <input type="checkbox"/> |
| Never 從不購買 | <input type="checkbox"/> |

(Continued on the next page 下頁續)

Section C. Anxieties about Food Safety and Reactions

C 部分－對食品安全的憂慮及反應

12. *How worried or anxious do you feel about food safety issues? 您有多擔憂食品安全的議題?*

Imagine that “extremely worried” is measured as 5 and “not worried at all” is measured as 1.

假設 5 是「非常擔心」；1 是「完全不擔心」。(Please choose only one) (請只選一項)

- | | |
|--------------------------------|--------------------------|
| Extremely worried 非常擔心 (5) | <input type="checkbox"/> |
| Significantly worried 顯著擔心 (4) | <input type="checkbox"/> |
| Not sure 不確定是否擔心 (3) | <input type="checkbox"/> |
| A little worried 有些擔心 (2) | <input type="checkbox"/> |
| Not worried at all 完全不擔心 (1) | <input type="checkbox"/> |

13. *Which of the following factors do you think threaten food safety?*

您認為以下哪項因素會危及食品安全?(Please choose up to three) (請選擇最多三項)

- | | |
|--|--------------------------|
| Pesticide residues 殘留農藥 | <input type="checkbox"/> |
| Food additives (including preservatives and artificial colors)
食物添加劑 (包括防腐劑及人造色素) | <input type="checkbox"/> |
| Food imports from specific regions 來自特定地區的進口食品 | <input type="checkbox"/> |
| Environmental pollutants (e.g. chemicals or radiation etc.)
環境污染物 (如化學物質或輻射等) | <input type="checkbox"/> |
| Antibiotic residues 殘留抗生素 | <input type="checkbox"/> |
| Domestic animal infectious diseases (i.e. mad cow disease, bird flu etc.)
家畜傳染病 (即瘋牛病, 禽流感等) | <input type="checkbox"/> |
| Genetically modified crops (GMOs) 基因改造農作物 | <input type="checkbox"/> |
| Allergic substances (e.g. wheat, fish, soy, peanuts, milk, egg, etc.)
致敏性物質 (如小麥, 魚, 大豆, 花生, 牛奶, 雞蛋等) | <input type="checkbox"/> |
| Harmful micro-organisms (e.g. salmonella, O-157, norovirus, etc.)
有害微生物 (如沙門氏菌, 大腸桿菌 O-157, 諾沃克病毒等) | <input type="checkbox"/> |
| Other 其他 () | <input type="checkbox"/> |

14. Which of the following supermarkets do you usually go? 您常去以下哪些超級市場?

(Please choose up to three) (請選擇最多三項)

- | | | | |
|-------------------------|--------------------------|----------------------------|--------------------------|
| City Super | <input type="checkbox"/> | ThreeSixty | <input type="checkbox"/> |
| AEON (永旺超級市場) | <input type="checkbox"/> | Market Place by Jasons | <input type="checkbox"/> |
| Wellcome (惠康超級市場) | <input type="checkbox"/> | Great | <input type="checkbox"/> |
| ParknShop (百佳超級市場) | <input type="checkbox"/> | Taste | <input type="checkbox"/> |
| Gateway Supermarket | <input type="checkbox"/> | Gourmet | <input type="checkbox"/> |
| YATA Supermarket (一田超市) | <input type="checkbox"/> | China Resources (華潤萬家超級市場) | <input type="checkbox"/> |
| Fusion | <input type="checkbox"/> | Apita | <input type="checkbox"/> |
| International | <input type="checkbox"/> | 759 Store (759 阿信屋) | <input type="checkbox"/> |
| Other 其他 () | <input type="checkbox"/> | | |

15. Many food scandals have occurred all over the world. In reaction to these circumstances, how have your food purchases changed? 世界各地的食品醜聞如何改變您採購食品的習慣?

(Select all that apply) (請選擇所有適用的)

- Avoid purchases of food imported from a specific region.
避免購買來自特定地區的進口食品
- Buy food imported from a country of origin that is considered safe.
購買來自被認為安全的原產國之進口食品
- Select what to buy, looking carefully at the food labeling when purchasing.
選擇購買並細閱食物標籤
- Buy from a food-safety or health-conscious market
從著重食物安全或健康的店舖購買
- Reduce eating-out and purchases of ready-made meals.
減少外出用膳及購買預製食品
- Change nothing, and keep the same purchases as ever.
沒有改變，繼續以往的採購習慣
- Other 其他 ()

(Continued on the next page 下頁續)

Section D. Opinions to Ensure Food Safety

D 部分－確保食品安全的意見

16. *If you have a choice between (1) bargain foods with uncertain quality and (2) high-brand foods which are considered very safe, which product would you prefer to buy? 假如要從(1) 質量沒有保證的特價食品與 (2) 被認為非常安全的高檔次食品中作出選擇，您會較想購買哪些食品？*
(Please choose one for each food category listed on the left) (請為左列的食品類別各選一項)

	Bargain food without caring about safety 特價食品，不在意其安全(1)	20% more expensive high-brand food 貴 20% 的高檔次食品(2)	50% more expensive high-brand food 貴 50% 的高檔次食品(2)	100% more (double) expensive high-brand food 貴 100% (雙倍) 的高檔次食品(2)	Five times more expensive high-brand food 貴五倍的高檔次食品(2)	Ten times more expensive high-brand food 貴十倍的高檔次食品(2)
a) Rice & Other Grains 米和其他穀物	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Fresh Vegetable & Fruit 新鮮蔬菜和水果	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Meat & Fish 肉類和魚類	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Dairy Food & Egg 乳製品和雞蛋	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Tea Leaves 茶葉	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. *In the past 12 months, which of the following sources have given you information on food safety, food handling or food recalls? 在過去 12 個月，以下哪項的消息來源讓您知悉食品安全、食品處理或回收問題食品的資訊？* (Please choose up to five) (請選擇最多五項)

TV or radio 電視或電台	<input type="checkbox"/>
Newspapers or magazines 報章或雜誌	<input type="checkbox"/>
Food company brochures or website 食品公司宣傳單張或網頁	<input type="checkbox"/>
Government brochures or website 政府宣傳單張或網頁	<input type="checkbox"/>
Internet news 網上新聞	<input type="checkbox"/>
Internet health sites 健康網站	<input type="checkbox"/>
Internet site i.e. blogs, Facebook, Twitter 網站，即博客、面書、推特	<input type="checkbox"/>
Presentation at markets 市場推廣	<input type="checkbox"/>
Friends and family 朋友及家人	<input type="checkbox"/>
Doctor or other health care providers 醫生或其他醫護人員	<input type="checkbox"/>

- Cookbooks 烹飪書籍
- Cooking classes 烹飪班
- Teacher or professor or children's school 教育機構
- Other 其他 ()

18. What measures do you think government or food businesses should take to remove the fear associated with food safety? 您認為政府或食品企業應採取甚麼措施來消除有關食品安全的恐慌? (Please choose up to three) (請選擇最多三項)

- Disclose all information about food including country of origin, producer/manufacturer, process, ingredients, etc.
 公開所有關於食品的資訊，包括原產地、生產/製造商、過程、成分等。
- Establish clear standards for food safety, and maintain rigid control.
 為食品安全建立明確標準及保持嚴格監控。
- Extend the geographical range that food labeling has to explain, especially about ingredients and country of origin.
 擴充食物標籤資料，特別是有關材料來源和生產的地理資訊。
- Apply harsher penalties for offenders who threaten food safety (e.g. misrepresentation of food labeling or menus).
 對危及食品安全的違例者（如使用失實誤導的食品標籤或餐牌）實施更嚴厲的懲罰。
- Establish an effective system for rapid release of information and recall in case of food problems. 建立有效發佈資訊及回收問題食品的系統。
- Provide a consultation service regarding food safety for the general public.
 為市民提供關於食品安全的諮詢服務
- Other 其他 ()

(Continued on the next page 下頁續)

Section E. Evaluation/Perception of Food Made in Japan

E 部分－對日本製食品的評價／理解

19. What is your evaluation or perception on the food made in Japan?

您對日本製食品的評價或看法是甚麼？ (Please choose only one) (請只選一項)

- It is safe and secure. 安全可靠
- I don't know if it is safe or not. 不知道是否安全
- It is not safe. 不安全
- It is high-quality and tasty. 品質高又味美
- It is expensive because of branding. 品牌緣故而昂貴
- I have no idea about it. 對此沒有意見
- Other 其他 ()

20. Is there any food item that you particularly buy that is made in Japan?

您會特意選購哪些日本製的食品？ (Select all that apply) (請選擇所有適用的)

- Rice 米
- Processed grains including wheat flour 加工穀物，包括麵粉
- Leafy vegetables 綠葉蔬菜
- Root vegetables 根莖蔬菜
- Mushrooms 菇菌
- Fruit 水果
- Beef 牛肉
- Pork 豬肉
- Chicken 雞肉
- Seafood 海鮮
- Egg 雞蛋
- Dairy products 乳製品
- Processed food including Tofu, noodles, etc.
加工食品，包括豆腐，麵條等
- Seasonings 調味料
- Other 其他 ()

21. *What is the item that first pops into your head when you hear the word “food made in Hokkaido”?*

當聽到「北海道製造的食品」，您立刻想到甚麼？

(Please write down as many as possible) (請盡可能寫出所有答案)

(Continued on the next page 下頁續)

24. Please choose four countries that you would like to visit on the next trip. Then, in the same way as above, please rate the attractiveness of each with a score from 1-5. 請寫出下一次旅行想前往的四個國家，再以上題評分準則評價其吸引力。

(“Not at all attractive”完全不吸引 = 1 ; “Extremely attractive”非常吸引 = 5)

Four Countries 四個國家	Tasty food 美食	Climate 氣候	Safety 安全	Cost 費用	Friendly people 友善的人	Interesting culture 有趣的文化	Natural attraction 自然景點	Interesting activities 有趣的活動	Understanding of English 對英語的理解
()	()	()	()	()	()	()	()	()	()
()	()	()	()	()	()	()	()	()	()
()	()	()	()	()	()	()	()	()	()
()	()	()	()	()	()	()	()	()	()

25. Please rate from 1-5 the importance of the criteria when choosing an overseas destination
請以 1-5 分評價以下範疇於您選擇海外目的地之重要性：

(“Not at all important”完全不重要 = 1 ; “Extremely important”非常重要 = 5)

Tasty/high quality food 美味/高質素的食物	()
Natural attractions 自然景點	()
Friendly people 友善的人	()
Interesting culture 有趣的文化	()
Cheap to travel in 旅行的價格	()
Safe to travel in 旅行的安全	()
Comfortable climate 舒適的氣候	()
English speaking 以英語溝通	()
Friends or relatives live there 有親戚朋友居住	()
Availability of interesting activities 有趣的活動	()

(Continued on the next page 下頁續)

Section G. Hokkaido's image as a destination

G 部分－北海道的旅遊形象



26. *This question has two parts. First, please rate the attractiveness of Hokkaido from 1-5 (“Not at all attractive” = 1 and “Extremely attractive” = 5) from the perspective of the following criteria. 這問題有兩部分：首先請以 1-5 分評價北海道在下列九個範疇的吸引力（「完全不吸引」=1；「非常吸引」=5）。Next, please choose two other destinations that you would like to visit in Japan. Then, rate them in the same way, with a score from 1-5. 然後寫出另外兩個您希望前往的日本地區，再以上述評分準則作出評價。*

	Tasty food 美食	Climate 氣候	Safety 安全	Cost 費用	Friendly people 友善的 人	Interesting culture 有趣的 文化	Natural attraction 自然景 點	Interesting activities 有趣的 活動	Understand ing of English 對英語 的理解
Hokkaido 北海道	()	()	()	()	()	()	()	()	()
()	()	()	()	()	()	()	()	()	()
()	()	()	()	()	()	()	()	()	()

27. *Have you ever been to Hokkaido for sightseeing or on business?*

您有否曾到北海道觀光或公幹？

(Please tick your answer, and, if yes, put down the number of times)

(請剔出您的答案；如有，請寫上次數)

Yes 有 If yes, how many times?
如有，多少次？ () No 沒有

28. *If you had the opportunity to go to Hokkaido (again) on a holiday, what activity would you want to do most? 如有機會到（或再到）北海道度假，您最想進行甚麼活動？*

(Please choose and tick up to five activities) (請選擇最多五項活動)

- Gourmet tour: enjoying a top-quality seasonal dish in each region of Hokkaido
美食之旅：享受北海道各區域最優質的時令菜
- Sports in green season (e.g. rafting, kayaking, trekking, climbing, horse riding, cycling, golf, etc.) 在春夏季節運動（如漂流，划獨木舟，徒步旅行，攀山，騎馬，騎自行車，打高爾夫球等）
- Driving in green season 在春夏季節駕駛
- Winter sports (e.g. skiing, snowboarding, skating, snow-trekking, airboarding, snowmobile riding, etc.)
冬季運動（如滑雪，單板滑雪，溜冰，雪地健行，充氣滑板，騎雪地摩托等）
- Hot springs 泡溫泉
- Sightseeing on scenic spots 觀光
- Shopping 購物
- Visiting the zoo/aquarium 前往動物園/水族館

- Learning about the history and culture of Hokkaido including Ainu culture
- 了解北海道的歷史和文化，包括愛努（北海道原住民）文化
- Farm experience 農場體驗
- Ecotourism (attending an environmental interpretive program)
- 生態旅遊（參加環境解說課程）
- Other 其他 ()

29. If you had the opportunity to go to Hokkaido (again) on a holiday, would you prefer to participate in a group tour or travel independently?

如有機會到（或再到）北海道度假，您會較想參加旅行團還是自由行？

- Group tour 旅行團 Travel independently 自由行

30. What is the word or phrase that pops into your head when you hear the word “Hokkaido”?

當聽到「北海道」，您想起的詞語或說法是甚麼？

(Please write down as many as possible) (請盡可能寫出所有答案)

Your answers to the questionnaire are highly appreciated. Thank you.

非常感謝您抽空完成整份問卷。謝謝。

===== **End of Questionnaire 問卷完** =====