Title	The potential value of research-based evidence in destination management : the case of Kamikawa, Japan
Author(s)	Higuchi, Yukari; Yamanaka, Yasuhiro
Citation	Tourism review, 74(2), 166-178 https://doi.org/10.1108/TR-11-2017-0188
Issue Date	2020-01-15
Doc URL	http://hdl.handle.net/2115/76525
Type	article (author version)
File Information	Final Manuscript.pdf

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The potential value of research-based evidence in destination management: The case of Kamikawa, Japan

Yukari Higuchi & Yasuhiro Yamanaka

Department of Environmental Earth Science, Hokkaido University, Sapporo, Hokkaido, Japan

Corresponding author: Yukari Higuchi, PhD, Research Fellow, Faculty of Environmental Earth Science, Hokkaido University, N10 W5 Sapporo, Hokkaido, Japan 060-0810, Phone: +81-11-706-2363, e-mail: y.higuchi@ees.hokudai.ac.jp

Co-author: Yasuhiro Yamanaka, Professor, Faculty of Environmental Earth Science, Hokkaido University, N10 W5 Sapporo, Hokkaido, Japan 060-0810, Phone: +81-11-706-2363, e-mail: galapen@ees.hokudai.ac.jp

Abstract

Purpose – This paper examines the direct intervention of university researchers in tourism practices in Hokkaido, Japan. The overall objective is to further understanding into the potential value of research-based evidence and scientific knowledge in tourism destination management. The paper articulates how the outcomes of structured knowledge creation were able to fundamentally change the long-held presumptions of local stakeholders about their destination, and also examines how this knowledge was used to aid decision-making and the formulation of new tourism strategies.

Design/methodology/approach – Through an action research (AR) approach, data was collected by direct participation and interviews and then qualitatively analyzed.

Findings – The results clearly depict that the key factors for making destination management workable and sustainable are related to academic researchers' direct intervention in tourism practices.

Originality/value – This paper has filled a gap in existing scholarship where empirical understanding from first-hand experiences has lacked around the important role that scientific knowledge or evidence-based research can play in enhancing decision-making in collaborative initiatives aiming to develop local tourism resources. The importance of the scientific approach and evidence-based decision-making is gaining increasing recognition in tourist destination development and management. This points to an important opportunity for academic researchers to contribute to the realization of sustainable tourist practices.

Keywords destination management, action research, evidence-based decision-making, sustainable tourism, mutual learning, reflexivity

Introduction

Under the economic plan of Prime Minister Abe's leadership (*i.e.* so-called Abenomics), the Japanese Government has recently imported the concept of destination management organizations (DMOs) and elaborated a "Japanese-style DMO" program aiming to stimulate the socio-economic regeneration of Japan's regional areas (Ministry of Land, Infrastructure and Transport & Tourism Agency, 2017). This Japanese-style DMO program focuses especially on the needs of rural communities and aims to invigorate local economies through spurring tourism development. Although industrialized countries are all wrestling with the emerging consequences of aging societies and low birthrates, those trends are particularly serious in Japan and far exceed those of other nations. Furthermore, population aging in Japan is especially pronounced in regional areas since the young are increasingly moving towards larger cities for higher education or employment. In fostering tourism development to address these concerns, the Japanese government provides intellectual or financial support (Ikenoue, 2017) to the some 120 local DMO participants secured since the program's launch in November 2015 (Nakano, 2017).

Japanese DMOs, however, face serious obstacles in developing their destinations (Ishiguro, 2017). The largest obstacle, especially for small local DMOs, concerns their lack of contact with academic researchers. The government guidebook behind the program strongly encourages DMOs to employ a scientific approach and collaborate with academic researchers to build effective tourism strategies (Ministry of Land, Infrastructure and Transport & Tourism Agency, 2017). In reality, however, since local tourism practitioners have seldom used academic research they lack familiarity with the process of collaborating with academic researchers (Cooper, 2015). In addition, most academic researchers have remained as outsiders to the tourism industry with little understanding of its pressures and drivers. It is often the case that their attempts at knowledge transfer have been one-off and one-way. As a result, generally speaking scientific approaches are yet to take root in the development of tourism destinations (Lane, 2009).

The Kamikawa destination, the subject of this study, has recently organized a DMO. In April 2016, the authors of this paper and other researchers from the Graduate School of Environmental Science, Hokkaido University (GSES) were invited to the incubation arena for formulating a DMO in the Kamikawa region. The continuing experiences sparked from this initial collaboration have prompted this study. Our primary aim is to report on experiences to date in the goal of increasing understanding into the important roles that academic researchers can play in shaping effective

management practices in the goal of spurring socio-economic regeneration in a tourism destination. More specifically, the sub-objectives guiding this study are to examine the process by which: 1) university researchers were able change long-held presumptions about the tourist destination held by local stakeholders through research-based evidence; and 2) mutual learning and reflexivity occurred between university researchers and Kamikawa stakeholders. Our direct involvement in the tourism management practices in the Kamikawa destination has enabled us to employ an action research (AR) approach and incorporate direct experiences as we focus on the impacts of the AR research and intervention process for the local stakeholders.

Theoretical background

Everret and Aitchson (2008) argue that multidisciplinary academic researchers can help tourism stakeholders secure their regional identity through identifying and providing the knowledge necessary to advance sustainability. Hoarau and Kline (2014) point out that the co-creational practice of knowledge sharing between academic researchers and tourism practitioners has great potential to advance innovation and spur sustainable development. However, knowledge sharing between these two parties is not without complication. In many cases, tourism stakeholders do not have enough resources including budget and manpower to invest in building an enduring relationship with the research community (Cooper, 2015). As governments attach great importance to knowledge transfer from research institutions towards societal organizations in the knowledge economy, universities are expected to play a growing role in supporting the development and innovation of tourism businesses (Yusuf, 2008). However, Lane (2009) laments the lack of partnerships formed to promote sustainable tourism development between university researchers and tourism practitioners. He points to the dominating tendency of academic researchers in relevant fields to work in isolation from industry—either due to a lack of knowledge on how to work with the tourist sector or a lack of understanding into the pressures and drivers within the industry. 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. This underutilization of academic research by tourism practitioners is partly due to poor linkages with academic researchers and a lack of understanding about each other's expertise, culture, and norms (Thomas, 2012).

Knowledge management addresses the critical issues including organizational adaptation, survival, and competitiveness (Malhotra 2002). Tourism has been slow in adopting the knowledge management approach due to not only a lack of gearing between academic researchers and tourism

practitioners, but also to a hostile knowledge adoption environment. This hostile adoption environment is related to tourism's very nature that is dominated by small enterprises, fragmented across a variety of activities, and has vocational reinforcers such as poor human resource practices militating against the continuity of knowledge absorption. All of these have become barriers to knowledge transfer and consequently hindered building a trust relationship between the knowledge creators and users (Cooper, 2006). Furthermore, although knowledge management requires an open decentralized environment where individuals are empowered to view knowledge as a resource to be shared (Davenport and Prusak, 1998), this precondition does not often exist in the tourism industry. This is because the knowledge created in tourism is dominantly tacit and hoarded within an organization and therefore it is often the case that the network remains at the micro-level. Overcoming this obstacle is one of the major challenges in tourism (Cooper, 2006).

Description of the study subjects

The Kamikawa region in Hokkaido prefecture

Hokkaido is the largest and northernmost prefecture in Japan. Because of abundant food production and a rich natural environment, Hokkaido has consistently featured in the top five destinations in Japan for both domestic and international tourists. International tourism alone increased about 30% annually over the past five years (Hokkaido Bureau of Economy, Trade and Industry). The Kamikawa region is one of six sub-prefectures within the Hokkaido prefecture, and is centrally located in the north of Hokkaido Island (see Figure 1). The area's climate and geography is well-suited to farming. Rich, snow-pack fed water resources originating from Mt. Daisetsuzan fertilize the vast Kamikawa basin while the inland climate boasts a wide range of temperatures ranging from almost sub-arctic winters to warm summers. These environmental conditions provide locally produced agricultural products with a rich taste.

Figure 1. Location of the Kamikawa destination (in grey) in relation to the Japanese Archipelago and Hokkaido region. Source: the author.

In contrast to the increasing tourism interest in Hokkaido, the Kamikawa region still faces significant challenges such as depopulation and an aging society. The Ministry of Land, Infrastructure, Transport and Tourism estimates that the population of Kamikawa will decrease by about 30% between 2000 and 2025. Communities in Kamikawa are thereby facing the resultant economic shrinkage resulting from depopulation. Yet in addition to economic concerns, population aging and shrinkage poses fundamental lifestyle and livelihood challenges as public services (*e.g.* transport such as buses, snow removal, social services etc.), infrastructure maintenance and commercial facilities (*e.g.* stores, banks etc.) close or deteriorate in response to a shrinking population and fiscal tax income for the municipality. Only the Shiribeshi region – which 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 reaped the direct benefits of tourism development, with the exception of a handful of the area's ski resorts the Kamikawa region has not historically been a domestic or international tourism destination.

“Ski Holiday,” a local volunteer group

In 2016, some Kamikawa ski tourism stakeholders organized a volunteer group, “Ski Holiday,” with the objective of tackling the decline of tourist numbers during winter. The number of ski tourists to the region has steadily decreased since 2000—with the exception of international tourists. The chief reason for this lies in the overdependence of ski-related businesses in Kamikawa on large tourist groups arranged through national travel agencies. This industry was slow to start restructuring their operations to target independent travellers. Although the members of Ski Holiday previously had met several times in the attempt to resolve this problem, they were unable to come up with any concrete mitigation strategies. Furthermore, although they wished to collaborate with other tourism-related fields such as hotels, transportation, foods or government, they mostly failed to secure the support of such stakeholders or incite changes in behaviour. This was even the case after consistently communicating concerns across the business sector about imminent economic shrinkage from depopulation and societal aging. Faced with a situation where the Ski Holiday members were struggling to determine effective strategies for achieving their goals, they decided to reach out to outside expertise for support. A decision was made to reach out to GSES at Hokkaido University since a key person of the Ski Holiday group had previously worked with researchers from this graduate school in making an environmental interpretation program at a ski resort in another area (see Higuchi and Yamanaka, 2017).

Table 1. Breakdown of Ski Holiday Members.

Number	Organization	Position	Sector
1	Japanese Inn	owner	lodging
1	Taxi Company	owner	transportation
1	Bus Company	owner	transportation
1	Hotel	manager	lodging
1	Ski Association for the Disabled	staff	NPO
1	Asahikawa City	councilor	government
2	Asahikawa Tourist Bureau	officials	government
1	Association for Local Regeneration	staff	government
2	Local ski resorts	managers	ski tourism
2	Travel Agency	managers	tourism
1	Video Company	owner	service

Total 14

Kamikawa General Subprefecture Bureau (KGSB) and food tourism

Given that depopulation in the region threatens the viability of agriculture and food-related industries, the Kamikawa General Subprefecture Bureau (KGSB) has taken measures to address this problem. ‘Kamikawa Tabemonogatari (food story)’ is a campaign that KGSB designed to promote food tourism in the region (Kamikawa Tabemonogatari). 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, the ‘Kamikawa Food Story,’ to diffuse information about agriculture and Kamikawa food tourism to the general public. Through this task, it became necessary for KGSB staff members to interact with many farmers, chefs, and other food-related sector employees. This created a wealth of contacts that helped the subsequent AR process.

Study Methods

Our project to support Kamikawa’s destination management started in April 2016. We decided to employ an action research (AR) approach since we were required to directly intervene in the destination management. In developing this study, we have used Greenwood’s (2007) ‘Co-generative Model for AR’ as an analytical lens.

According to Greenwood (2007), AR is a way of working in the field and of utilizing multiple research techniques to collect data with the goal of producing new scientific knowledge to promote more effective analysis of social phenomena and democratic social change. Unlike conventional social science research techniques, AR is carried out by a team that consists of professional action researchers and local stakeholders including the members of an organization, community or network who are seeking to improve the participants’ situation. This collaborative process rests on mutual learning and strategic reflexivity between the researchers and stakeholders. The most important step in this process is to collaboratively come up with a common problem definition among the local stakeholders and the action researchers especially at the initial stage (Chevalier & Buckles, 2013). Stringer (2013) underscores that AR can dramatically change the role of the person traditionally called “the researcher.”

Multiple research techniques have been employed in this project to collect both primary and secondary data. Primary data was collected via direct participation and interaction with stakeholders (*i.e.* action research) and semi-structured interviews. The nature of our direct participation in the

DMO involved going back and forth between participating in the arenas for mutual learning and reflexivity with Kamikawa stakeholders and implementing pure research activities. Secondary data was collected from sources such as a wide range of public reports and websites relating to Kamikawa tourism. This was reviewed to generate topics and questions for semi-structured interviews. These were conducted through face-to-face meetings, telephone calls or e-mail exchanges during the period April 2016 to May 2017. The sample of interviewees consists of 30 key stakeholders and experts. These were purposely selected based on their assumed knowledge of the region's food tourism, food production and ski-tourism. They were chosen from various societal areas to ensure a balanced array of perspectives (see Table 1). International literature on action research, ski tourism, food tourism, gastronomy tourism, culinary tourism, sustainable tourism, environmental education, and social capital was also widely consulted.

Table 2. Breakdown of sample interviewees.

Number interviewed	Organization	Position	Sector
2	KGSB	officials	government
2	Bureau of Air Transportation, Hokkaido Government	officials	government
1	Hokkaido Bureau of Economy, Trade and Industry	official	government
1	Civil Aviation Bureau of Ministry of Land, Infrastructure and Transport	official	government
3	Asahikawa Tourist Bureau	officials	government
3	Local ski resorts	managers	ski tourism
3	Hotel management	managers	tourism
2	Sustainable tourism NGOs	representatives	sustainable tourism
2	Transportation service management	managers	transport
1	Local agricultural cooperative	manager	food production
6	Farms	owners	food production
3	Restaurants	owners	food tourism
1	Food-distributing company	owner	food production and tourism

Total 30

Data collected from interviews was organized into discrete codes reflecting patterns and ideas that frequently emerged during conversations. These codes included the status of tourism, explicit and/or tacit knowledge necessary to the betterment of the status quo, long-held presumptions relating to

Kamikawa destination, research-based evidence, learning arenas, co-creation practice, new value, innovation process and outcome, fear of future contraction, social bonding and capital, challenges, and incentives and motivations. Subsequently, these codified data were analyzed, having been placed in the seven-components framework of the model – participation, the definition of research-question, action, communication, feedback & reflection, the redefinition of research-question, and the sophistication of methodology – to identify factors that contributed to the AR participants. There were some data that did not fit into the framework, which included factors unique to this case study.

Results

The initial knowledge needs analysis in Kamikawa

Interactions between researchers of GSES and members of Ski Holiday revealed a lack of a jointly perceived images about the Kamikawa destination despite a common awareness amongst Ski Holiday members regarding the large potential value that ski-related activities and agricultural production held for developing tourism. Accordingly, GSES researchers decided to conduct a knowledge needs analysis that targeted the stakeholders of ski tourism and food tourism in the Kamikawa destination. This knowledge needs analysis was conducted from May to August 2016 and exploited KGSB's referrals to several farm and restaurant owners in the Kamikawa region. An interesting cultural barrier was immediately encountered during this process. A KGSB staff member related concerns that food industry practitioners would be intimidated by candid and forthright communication mannerisms which this individual felt characterize academic research. The GSES research team was repeatedly but politely reminded that good listening skills were essential for successfully overcoming communication barriers and paradigmatic differences between academic researchers and tourism practitioners—many of whom considered university researchers to be highly strange, almost like 'visitors from another planet.'

GSES researchers advanced their knowledge acquisition agenda cautiously and were successfully able to establish a fruitful relationship with members of Club Sarcelle. This is a network of food-related practitioners including restaurant owners, distributors of agricultural products, farm owners, and sommeliers. By frequently interacting through face-to-face meetings, email, SNS, and telephone, Club Sarcelle protagonists and GSES researchers exchanged a variety of ideas about food, the food market, the distribution of Kamikawa's products, and regional development. As the following statement by the leader of Club Sarcelle reveals, these frequent interactions facilitated trust building and the exchange of detailed information that could not be obtained through publicly issued

materials:

“When GSES researchers visited my restaurant for the first time, I was a bit nervous but felt delighted that they had an interest in our activities. Now, I enjoy talking about new recipes for local unique products or absorbing scientific knowledge relating to sustainability whenever GSES researchers come. We are sharing ideas to make Kamikawa’s future brighter.”

Through interactions with staff from Club Sarcelle and KGSB and leading farm owners, GSES researchers were able to identify that various stakeholders shared a common realization around the tremendous potential in neighboring Asia for development of the Kamikawa food tourism. Stakeholders voiced desires to target wealthy people from neighboring countries, especially from Hong Kong and Taiwan through their businesses. For the past five years, they had witnessed the rapid increase of independent Asian travelers 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 were unable to capitalize on this emerging opportunity. Furthermore, GSES researchers found that they had never jointly discussed finding a solution to this matter.

Following this finding, a part of GSES’s knowledge need analysis was then given to trying to ascertain an effective but achievable strategy for capturing a share of this international market. The researchers visited several tourism-related government agencies to build knowledge on the status of infrastructure to support international tourists and the profile of potential international visitors to the region. They subsequently 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 Hokkaido local government agencies had never surveyed in the countries of origin about the decision-making factors influencing the travel of overseas tourists. This finding motivated GSES researchers to visit Hong Kong and Taiwan to conduct research on the perspectives of Asian consumers regarding Hokkaido and its food.

Information obtained through interviews and observation in Hong Kong and Taipei

A GSES researcher visited Hong Kong and Taipei from July to August 2016. A primary finding of this preliminary research was that Japanese food products were generally viewed in these countries as premium quality items and that despite comparatively high prices they are selling relatively well. In addition, interviews with four local Japanese food importers were conducted to inquire about the

current state of their businesses, and local consumption habits. As the following statement reveals, these respondents held convictions that the market for food produced in Hokkaido could expand since the name ‘Hokkaido’ has substantial marketing potential:

“The name ‘Hokkaido’ is more popular than you think... Hong Kong people are generally conservative in what to eat. But many have visited Hokkaido and learned how tasteful its food is, including sweets, fruits, milk products, and seafood. Those positively buy Hokkaido-made food after coming back... Indeed, there is a synergy effect between tourism and food import.”

This suggested that Hokkaido-made food has already acquired a certain level of branding power. However, interviews also revealed barriers that were preventing the exploitation of this market opportunity. For example, one respondent stated that he preferred to imported food via Tokyo agents instead of directly from Hokkaido as he felt that people from Hokkaido generally lack international business acumen.

Findings from the interviews and field observations from Hong Kong and Taipei were shared with the Kamikawa food tourism stakeholders as well as Ski Holiday members. Whereas this research-based evidence enhanced the stakeholders’ self-confidence in their products, it also clearly revealed their deepest flaw—a lack of international business literacy. By generating completely new insights for the stakeholders in Hokkaido, this utilization of research-based evidence provided stakeholders with renewed appreciation about the importance of knowing the international market and understanding how internationalization might be achievable at the local level.

Knowledge sharing via an academic survey

Results obtained from the above described knowledge needs analysis and research trips led to the mutual definition of two initial research questions that were chosen to guide a second stage of research: 1) To what degree are international tourists visiting the Kamikawa destination satisfied or dissatisfied with its tourism attributes? and 2) What kind of perceptions do potential customers in the international markets have with regard to the Kamikawa destination? To generate data to address these initial research questions, two kinds of questionnaire survey were carried out. The first survey in Hong Kong was conducted by GSES to measure perceptions about Japan and Hokkaido, including Kamikawa, and collected 597 valid responses. This targeted three social groups including relatively wealthy people, university students, and middle-class people and attempted to clarify differences depending on the social stratification when choosing a destination. The second survey in Kamikawa

was implemented mainly by Ski Holiday to measure the satisfaction levels of tourists visiting the region, and collected 124 valid responses.

The Hong Kong survey revealed, for example, that:

- ✓ the majority of respondents attached the highest value to the criteria of “food” and “safety” when choosing a destination,
- ✓ Japan, including Hokkaido, received the highest ratings for these attributes, ahead of Taiwan and Australia who also scored well in this category,
- ✓ Japan received the highest rating regarding the friendliness of people ahead of New Zealand and Taiwan that also received relatively higher ratings for this attribute,
- ✓ there were few differences in rating among competing Japanese destinations such as Hokkaido, Kanto, Kyushu, Kinki, Chubu, Okinawa, Tohoku, Chugoku, Shikoku, and Tokai,
- ✓ and English proficiency of Japanese is not so important for the majority of respondents.

The Kamikawa survey showed, for example, that:

- ✓ over 90 percent of tourists visiting the region from western countries enjoyed skiing,
- ✓ many of these were proficient skiers who were highly attracted by the powder snow in Hokkaido,
- ✓ when choosing a ski destination, this group attached higher value to criteria such as the number and the design of slopes, and the price of accommodation,
- ✓ about 40 percent of the tourists from the Asian countries enjoyed skiing, but most were beginners,
- ✓ compared with other ski resorts, Kamikawa obtained a relatively higher appraisal in the attributes of “food quality,” “food price,” and “accommodation price,”
- ✓ and it is presumed that the increasing number of western skiers in Kamikawa have flowed in from Niseko, the strongest competitor, since many tourists are dissatisfied with Niseko’s high prices.

These analytical results upturned several long-held presumptions held by the Kamikawa stakeholders. For example, they had previously believed that the English proficiency of locals and tourist industry employees was a crucial factor for international tourists when choosing a destination. Also, they had assumed that Niseko—the most internationalized ski resort in Hokkaido—was a much more attractive destination than Kamikawa, especially for the international ski tourists. Results of the surveys however demonstrated otherwise and also pointed to an important opportunity to develop Kamikawa’s food tourism. This is reflected by the following stakeholder statement:

“Without the research results, we would have invested lots of money to improve our English command. English is still important to deliver a marketing message or interact with international business people, but now we know that priority should be given to elaborating local food recipes or providing safe and comfortable accommodation at reasonable prices.”

Discussions with stakeholders revealed that they had obtained two benefits from the results of the research (*i.e.* GSES’s interview-based needs analysis and the two questionnaire surveys) that were conducted in the goal of building structured understanding into local needs and the potential for developing international tourism around food and ski resources. Firstly, since various strengths, weaknesses and opportunities were revealed, stakeholders were able to start building specific strategies and prioritizing their challenges. Secondly, the objective nature of the quantitative and qualitative data from the research findings provided the stakeholders with a new array of evidence and themes that they were then able to integrate into meetings and forums that sought to disseminate their activities and deeper understanding about the Kamikawa destination. As well as providing additional arenas to facilitate mutual learning amongst the members of Ski Holiday and Club Sarcelle, by integrating the results of structured knowledge production from research these gatherings helped to provide a common language to cross diverse stakeholder groups and industries and encourage stakeholders who had not yet participated in the AR process to join. However, it has not yet been clear how many stakeholders were involved in this movement and how many eventually changed their practices. The question of how far the impact of this movement was spread is going to be the next research question of our AR. The cyclical nature where findings become the next research question is one of the features of AR.

Several obstacles were encountered during the AR process—most particularly regarding the initial asymmetrical situation regarding knowledge stocks of the local stakeholders and university researchers. The researchers tried to retain a good balance between on one hand their attempts to transfer scientific skills and knowledge to the stakeholders and on the other hand their efforts to proactively utilize local information and skills from stakeholders. The latter process however was often impeded by the quietness and introverted nature of the stakeholders. For example, although several meetings were held between members of KGSB, Club Sarcelle and university researchers, most participants remained silent even though they harbored strong opinions. This was largely a cultural problem since many participants had never been trained to express ideas in public. Email communications after meetings served as one means of overcoming this unanticipated situation.

Discussion

Altering the initial situation of the stakeholder groups

Roose *et al.* (2007) argue that a major challenge for researchers intervening into the activities of societal practitioners through AR concerns the need to match different stakeholder interests and expertise so as to produce a suitable research question that can be shared among the involved parties—particularly at the outset. GSES researchers were keenly aware that initial research questions had to be of major importance to all AR participants, or the process would not be able to go anywhere. GSES researchers undertook several strategies to aid the exploratory and iterative process of gauging the different views and interests of various stakeholders when seeking to foster a common problem definition. For example, their knowledge needs analysis helped to ascertain previously tacitly held and ill-defined information regarding the inability of local stakeholders to capitalize on the rapid increase of independent international travelers that was widely witnessed around the Kamikawa region. This proved highly useful for the university researchers in understanding that the stakeholders lacked adequate abilities to identify new markets with potential to deliver business in the long-term. Findings of the interview investigations conducted in Hong Kong and Taipei also helped in the formulation of the two initial research questions that subsequently raised the mutual understanding of the researchers and stakeholders around the brand potential of the name ‘Hokkaido’ in these two source markets. Results sharing triggered a mutual learning cycle essential to the AR process, making knowledge transfer/sharing and reflexivity possible. Specifically, the local stakeholders learned that the more openly they release local tacit knowledge and information to GSES, the more vividly the researchers would be able to visualize local problems with scientific perspectives, which resulted in continuous structured knowledge co-generation.

Demonstrating the credibility and workability of AR outcomes

The second important outcome to ensue from the AR process is the formation of a clearer and shared vision of the destination that Kamikawa should aim to be. This emerged from the structured knowledge obtained from the three types of evidence collected; namely GSES’s interview investigation and the two questionnaire surveys conducted in Hong Kong and Kamikawa. The formation of this shared vision closely effected the credibility and workability of the solutions jointly achieved.

AR focuses on solving real-life problems that local stakeholders face. Thus, both credibility and workability in the AR process are linked to actions taken to provide a solution to the problem being examined. Credibility in AR is defined as the arguments, processes or knowledge necessary for local stakeholders facing a problem to trust the subsequent research results (Greenwood, 2007). Therefore, achieving credibility requires that stakeholders can recognize that a proposed research process is firmly connected to their local situation. Workability in AR refers to whether or not a solution can be identified as a solution to the initial problem or whether revision of the interpretation or redesign of the actions is required. In the AR process, a credibility challenge (*i.e.* the credibility of research results) must be judged in terms of workability of the solution arrived at since the AR participants have to figure out whether the actions taken in the process will actually result in a solution to the problem examined (Chevalier & Buckles, 2013).

In this study, after the two initial research questions were explicitly established after a joint learning process, university researchers were able to design two kinds of questionnaire to generate the answers to each. The results provided a picture of Kamikawa's image as a tourist destination. Most importantly, this new image was significantly different from the one that the local stakeholders had long held in mind. However, the new image was convincing to the local stakeholders because it was the result of an exhaustive analysis based on quantitative and qualitative data. In terms of credibility, these findings were well received by stakeholders since not only were they derived from scientific evidence that provided a neutral perspective on the situation faced, the survey results also demonstrated a strong connection to local problems. As for workability, the results sufficiently indicated potential to serve as an efficient foundation for refocusing measures and priorities aiming to improve local tourism activities. Through this stage, the local stakeholders were able to benefit from the academic process of building structured knowledge to visualize or verbalize local weaknesses and opportunities using scientific knowledge, theories, models, methods, and analysis. While much of this knowledge had previously existed in local stakeholder experiences and mindsets, it was previously non-explicated and had not been collated and shared across the region.

Achieving the collaboration across fields

The third major outcome of the AR process used in this study concerns the realization of cross-sectorial collaboration across multiple fields. In the development of sustainable tourism, scholars have argued that cross-organizational collaboration is a crucial ingredient for promoting innovation and making tourism more sustainable (Hjalager, 2002). Regional development that uses tourism as a catalyst can be sustained only when local stakeholders combine economic activities

across sectors and continually absorb new knowledge from the outside sources (Kauppila et al., 2009). In this perspective, networking and building collaborative relationships can be seen as a strategic choice for sustainable regional development since it can provide the different types of expertise (*e.g.* Shaw & Williams, 2009; Bramwell & Lane, 2000) that are not held by any individual societal actor or organization. Some scholars consider the knowledge as a resource to be shared across sectors through collaborative relations (Shaw & Williams, 2009). Not only did the AR project in this study formally integrate multiple stakeholders and organizations into a common knowledge producing exercise, it also fostered a conviction in stakeholders that the co-generated knowledge can provide an important resource to create a brighter future for Kamikawa. Given the depressing socio-economic challenges that this region is facing due to aging and depopulation, provision of this alternative and hopeful vision for Kamikawa is one of the most important outcomes from the AR project. Moreover, this has also proven one of multiple forces that helped to sustain the university and societal collaboration.

Our AR approach in this study achieved some positive results. Paradoxically, this causes concerns to us. AR is time-consuming due to its cyclical nature repeating the redefinition of the research question and the refining of methodology. Walter (2009) says that AR can stop only when the problem is resolved. However, our research funds and manpower are limited and therefore, if we could not secure the financial resources needed to keep going on, we would be forced to discontinue our participation in the Kamikawa tourism practice shortly. If this happened, the local stakeholders would have difficulty finding a replacement for us, because, as Lane (2009) mentions, many researchers in relevant fields tend to work in isolation from the tourism industry and thus seem to be reluctant to adopt AR. Although AR application can create an arena for mutual learning between stakeholders and researchers and facilitate the collaboration effectively, it strongly depends on researchers' initiative.

Conclusion

The aim of this paper was to build understanding into the important roles that academic researchers can play in shaping effective management practices in the goal of spurring local socio-economic regeneration in a tourism destination. This paper has thereby filled a gap in existing research where empirical studies based on first-hand experiences have been lacking on the topic of how scientific knowledge or evidence-based research can enhance decision-making in collaborative initiatives that aim to develop local tourism resources. The key argument made in this paper is that academic researchers' direct intervention in tourism practice has the high potentiality for visualizing or

verbalizing local weaknesses and opportunities, and, therefore, makes destination management workable and sustainable. As this study has demonstrated, research-based evidence has the power to change even long-held presumptions held by tourism stakeholders and practitioners. These new insights can then inform the identification of new priorities and the subsequent creation of new strategies. A prerequisite, however, to achieving such a transformation is the need to foster the trust relationships between researchers and stakeholders. This is a challenging process for both parties due to differences of paradigm and working culture. However, once the trust relationship is built, collaborations forged to carry out information transfer and joint problem-solving arrangements can be significantly enhanced (Higuchi & Yamanaka, 2017). Indeed, trust has an important role in social networks and non-monetary collaborative arrangements, especially in the context of cross-organizational arrangements to make tourism destinations more sustainable (Nunkoo, 2017).

In this study, as an experiment, we employed an AR approach that is widely purported to be a powerful method for aligning academic knowledge production and the activities of stakeholder practitioners in a mutual goal of improving a societal situation. This was found to be significantly helpful at facilitating mutual learning and reflexivity between Kamikawa local stakeholders and ourselves. In the AR process, the generated knowledge can be credible only when it is tested in a milieu of practice. Thus, it is said that such knowledge is difficult to generalize and apply to settings elsewhere. This said, however, we believe that the key argument of this paper is still applicable to any case of tourism destination.

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Acknowledgements:

The authors would like to express their gratitude to local stakeholders in the Kamikawa destination who helped the authors collect data during the research, and also to thank Ass. Prof. Gregory Trencher of Tohoku University for his insightful comments. This study was a part of the larger-scale study called ‘Environmental Research for Sustainable Region in Hokkaido’ that was supported by a research grant from the Coca-Cola Foundation.

Short biographical notes on contributors

Yukari Higuchi is a Research Fellow of Faculty of Environmental Earth Science at Hokkaido University, Japan. Her research focus is sustainable tourism and environmental education.

Prof. Yasuhiro Yamanaka is a Professor of Faculty of Environmental Earth Science at Hokkaido University, Japan. He is also the Vice-representative of the Regional Centre of Expertise on Education for Sustainable Development acknowledged by United Nations University. His research interests include environmental education, sustainable tourism, and numerical simulation of marine biogeochemical cycles.