Overcoming negative disaster images: how Fukushima's sake breweries challenged negative stereotypes and rebuilt its regional brand

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Abstract

Purpose – *This study adopts the multi-step model developed by Avraham and Ketter (2008), for altering place images, based on past academic literature on destination marketing. The purpose of this study is to determine the state of Fukushima's sake breweries before and after 2011, and its strategies for overcoming negative images and strengthening regional branding. Semi-structured interviews were conducted with seven sake breweries in Fukushima.*

Design/methodology/approach – *Fukushima Prefecture, located in northern Japan, is renowned for its hot springs, lakes, historical architecture, gastronomy, and particularly its sake (or Japanese rice wine). However, pre-existing problems such as the prefecture's changing demographics and economic development, the effects of the 2011 Great East Japan Earthquake (GEJE) and fears of radioactive contamination have made consumers reluctant to consume products from the region or to visit the prefecture. This study illustrates how various sake brewery stakeholders have sought to reverse and alter negative images associated with the prefecture. To examine these initiatives, this study uses the multi-step destination marketing and counter-branding model to identify the strategies and techniques used by the stakeholders, with the aim of altering the way the prefecture is perceived and reversing the negative image people may have of the prefecture. To acquire data for this model, this study uses semi-structured interviews conducted in 2018 and 2020 with local sake breweries, tourism associations and the local government on how they sought to retore a positive image of the prefecture and rebrand it into a new type of tourism destination that focuses on the strengths of its breweries.*

Findings – *The results indicate that through a combination of collaboration between the breweries, local government and the local communities, the sake breweries were able to reverse many of the negative effects of the 2011 GEJE. The success of the sake industry has prompted the local government to focus more strongly on tourism marketing that places sake products and breweries at the center of its campaign to promote the region.*

Research limitations/implications – *While this paper focuses on the recovery of breweries, it does not include the recovery of wineries in Fukushima, which have made similar progress in their recovery. In addition, the interviews focused primarily on the perspectives of the suppliers and not the consumers.*

Practical implications – *The results of this research can help guide other destinations undergoing prolonged association with negative images on the path toward image recovery. In particular, this paper highlights the importance of a coordinated strategy by all stakeholders, the local government, businesses and communities, to create a united image and response for addressing the causes of these image problems and to create new opportunities for all stakeholders.*

Originality/value – *This research contributes to the field of image restoration, which combines theories regarding destination marketing and crisis management. Also, the research highlights the importance of collective stakeholder mobilization when attempting to help communities that are facing economic and tourism crises.*

Keywords *Japan, Tourism, Disaster recovery, Destination marketing, Fukushima, Regional branding, Image restoration*

Paper type *Research paper*

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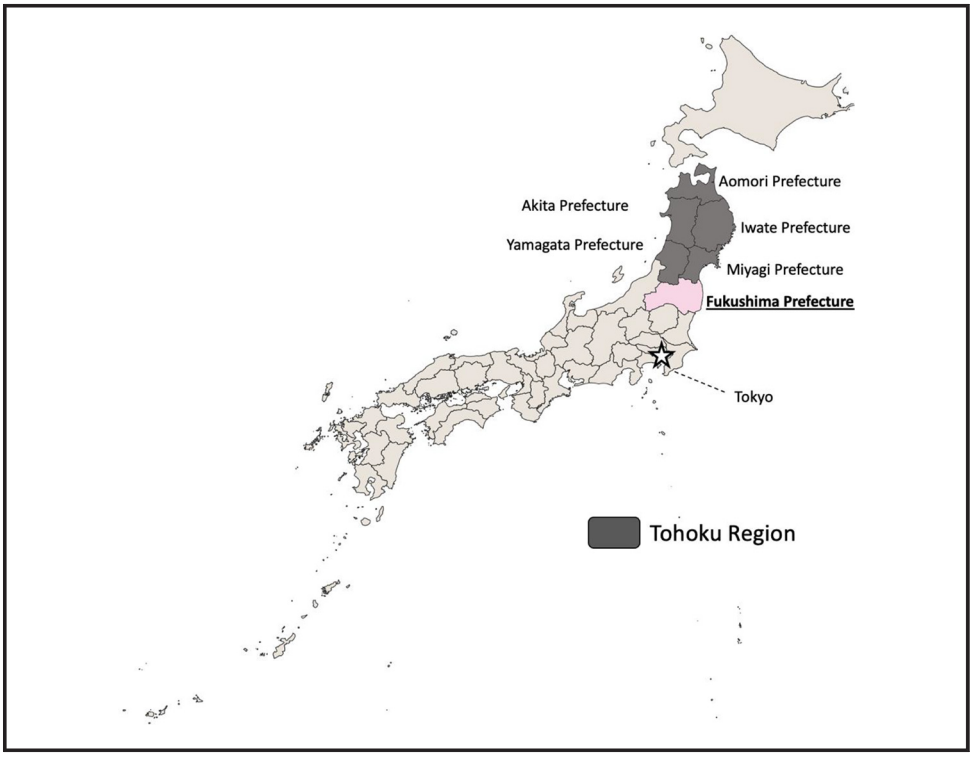
1. Introduction

Fukushima Prefecture, located in the Tohoku region of northern Japan (Figure 1), is renowned for its hot springs, lakes, historical architecture, gastronomy, and particularly its sake (or Japanese rice wine). Already experiencing economic and demographic decline, concerns over the long-term sustainability of the region increased after the Fukushima Daiichi Nuclear Disaster, which occurred in the north-eastern coast of the prefecture following the 2011 Great East Japan Earthquake (GEJE) (Zhang *et al.*, 2019). Essentially, the 2011 GEJE generated a large tsunami that resulted in wave run-ups of 10–40 m along the eastern Tohoku coastline (Mikami *et al.*, 2012; Mori and Takahashi, 2012), inflicting casualties that sometimes exceeded 10% of the resident population in many coastal towns in the region (Yamao *et al.*, 2015). Almost 20,000 people lost their lives, with 2,000 casualties in Fukushima Prefecture between those dead and still missing, and US$16bn of assets were damaged or destroyed, equivalent to approximately 3% of the country's GDP (Ranghieri and Ishiwatari, 2014). Notorious among the disaster mechanisms was the tsunami overtopping the coastal defenses protecting the Fukushima Daiichi Nuclear power plant, which knocked-off its coolant systems and provoked the worst nuclear disaster in the history of the country (Brumfiel, 2013). Roughly 115,000 residents had to be evacuated due to radiation concerns (F. Yoshida, 2013). As a result of the radiation, approximately 400 tons of contaminated groundwater was discharged daily, eventually being reduced to 150 tons after the operators of the powerplant began pumping out groundwater and discharged it into the sea after checking radiation levels (Nagata, 2016).

As a result of this nuclear disaster, both domestic and foreign consumers were reluctant to purchase products made in Fukushima, while tourists become more averse to visit the prefecture (Fukushima Prefecture, 2018; Tsegmed *et al.*, 2019). Fears of contamination have affected many of Fukushima's local industries, such as its famed sake breweries. To

Figure 1 Location of Fukushima Prefecture, within the Tohoku Region in northern Japan (Map based on MLIT Data)



address this concern, the prefecture's breweries have worked together with local communities and the prefectural government to develop a series of initiatives that have sought to reverse and alter the negative image of the region, to both strengthen the sales of alcohol and accelerate tourism recovery.

This study first examines the economic situation of Fukushima Prefecture prior to the 2011 GEJE, the impacts of the disaster and then focuses on the case study of the prefecture's sake industry. The paper uses a multi-step model on destination marketing and counter branding developed by Avraham and Ketter (2008) to identify the strategies being used by stakeholders in Fukushima's sake industry to reverse the negative images and stereotypes associated with the prefecture.

To acquire data for this model, this study uses semi-structured interviews conducted in 2018 and 2020 with local sake breweries, tourism associations and the local government.

2. Literature review

2.1 Japan's demographic decline

Japan is known for its rapidly aging and declining population. The 2010 National Census revealed that the country already reached its peak population in 2008, at 128.8 million people and has been declining ever since. According to the predictions by the National Institute of Population and Social Security Research, the total population of Japan is expected to reduce to 88.08 million by 2065, which implies a 31.4% of decline from 2010 (IPSS, 2017). At the same time, the proportion of elderly population, defined as those 65 and older, is predicted to rise to 35.6% by 2065. Essentially, Japan is in the "aging and shrinking society" phase, in which the total population continuously declines while the proportion of elderly gradually increases (Kudo, 2019).

The phenomenon of an aging and shrinking society is more evident in rural regions. The Japan Policy Council reported that 523 municipalities out of 1,741 are at the risk of disappearing (消可能性自治体), many of which are located in the Tohoku region (Japan Policy Council, 2014). Fukushima Prefecture's population peaked at 2.1 million in 1995 and had only 1.8 million inhabitants in 2020 (Fukushima Prefecture, 2020), with the decline affecting many of its rural regions and activities. Some examples of the impacts this has had includes an increase in the abandonment of assets such as agricultural lands, private houses and public buildings (Feldhoff, 2013; Traphagan and Knight, 2003). This hollowing of space and activities is taking place at the communal scale due to the low birth rate and ongoing out-migration of the youth, particularly after graduating from high school (to seek employment opportunities, tertiary education and the urban lifestyle in the megacity regions of Tokyo, Osaka and Nagoya). The lack of young people has created problems for local industries, which now lack human capital, in addition to giving raise to long-term succession issues, as family businesses and farms are unable to continue once their owners retire.

As a consequence of this continuous decline in population and aging of the remaining residents, today many of the hamlets in rural Japan (and especially those in the mountain areas) are facing the challenge of *Genkaishurakuka* (marginalizing rural hamlets). The process of *Genkashuraku* describes how those small-scale rural hamlets with 50% or more of its residents being elderly (defined as being age 65 or above) are in the process of disappearing (Ono, 2008). Once rural hamlets reach this *Genkaishuraku* phase the mutual support among the residents (a quintessential part of Japanese rural society) is often minimum, and some collective activities such as community farming, clean-ups or seasonal events and festivals are lost.

2.2 Impacts of the 2011 Great East Japan Earthquake on Fukushima's sake breweries

Fukushima Prefecture was reported to have suffered the second largest portion of earthquake and tsunami damage to agricultural land, second only to Miyagi Prefecture

(MAFF, 2013). In terms of post-disaster economic impacts, Fukushima also suffered more than the other prefectures in Tohoku as a result of the nuclear incident, given that many of the municipalities located next the plant consisted of agricultural fields and livestock farms (Watanabe, 2013). The meltdown of the nuclear reactor led to the contamination of rice fields, with caesium levels ranging from 67 up to 41,400 becquerel per kilogram, and up to 56,000 in other farm lands, with most of the heavily contaminated farms in Japan being located in Fukushima (MAFF, 2013). In response to radiation concerns, the Director General of the Nuclear Emergency Response Headquarters placed restrictions on sales of Fukushima food stocks in 2011. In 2012, among the 17 prefectures affected by restrictions, 58% of unsafe food items originated from this prefecture (Bachev and Ito, 2017).

A six-year study on the impacts and recovery of Tohoku's agriculture industries discovered that the primary obstacles that contributed to the decline in sales were harmful rumors and a reduction in the selling price, affecting the ability of farmers to restart operations (Japan Finance Corporation, 2017). This, combined with long term pre-existing issues, such as the aging of farmers, lack of successors and disaster-related sicknesses and injuries, has exacerbated the problems the prefecture is facing. The impact was most severe among vegetable producers, followed by rice and open field vegetable producers. Recovery progressed slowly, with only 30% of damaged farmlands restored in 2014. Restrictions on the sales of agricultural produce continued for several years after the incident, affecting the ability of Fukushima to recover economically (Bachev and Ito, 2014). The ban also affected exports to foreign markets, further limiting the economic recovery. In 2014, 93.8% of all food companies in Fukushima Prefecture reported that they had been adversely affected by the nuclear incident (Japan Finance Corporation, 2017).

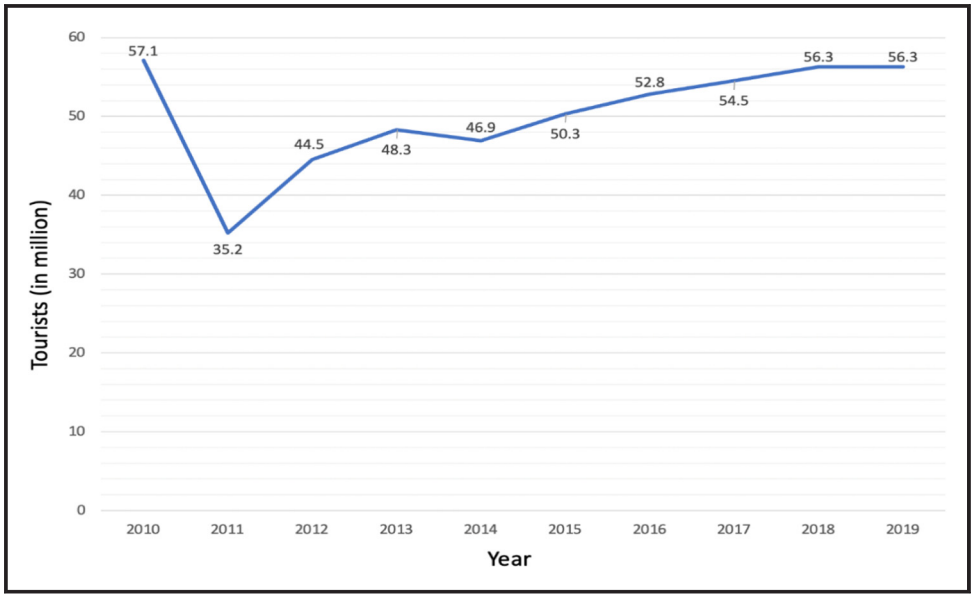
However, the increasing popularity of Japanese cuisine world-wide allowed for food experts to recover after 2014, after products from the region could demonstrate an adequate level of safety control regarding radiation levels (Bachev and Ito, 2017). Nevertheless, and despite the relaxation on restrictions on Japanese food imports, products originating from Fukushima Prefecture still require radioactive test certificates in some countries such as Hong Kong, Indonesia, and Singapore. Thus, it is clear that the ban on Fukushima products and fears of radiation caused by the accident at the nuclear powerplant created an economic crisis for multiple industries and communities, especially those reliant on food exports and tourism.

The impacts on the consumption of food and drink items from Fukushima was further exacerbated by the sharp decline in tourism. According to Fukushima Prefecture, annual tourist arrival numbers reached 57 million in 2010, before dropping to 35 million in 2011, the year of the disaster. According to the most recent data the prefecture has only recently begun to reach pre-disaster levels, with 56 million tourists recorded for 2019 (Figure 2). The decline in tourism has reduced visitor consumption of local products during the period between 2011 and 2019, particularly culinary products which are an integral part of the prefecture's destination marketing, alongside its architecture and nature.

2.3 Branding and image

Since 2011, Fukushima's brand and image has been associated with the nuclear meltdown and radiation. According to Amujo and Otubanjo (2012), negative images on brand identities often develop from socio-political and natural accidents rather than by intention, including natural hazards and environmental disasters. To counteract these negative images, cities/destinations begin a process of image repositioning which starts with the development and communication of a new brand concept, ideology, vision and identity. By developing a new image, destinations can better appeal to tourists, evaluate tourist interests, categorize these interests and match these interests with related attributes at the destination, for example pairing tourist's interest in Japanese culture with promotions focusing on Fukushima's castles (Amujo and Otubanjo, 2012). Determining the preferences

Figure 2 Annual tourism numbers to Fukushima Prefecture (Fukushima Prefecture, 2019)



of tourists and matching them with their perceptions can better position destination marketing that could improve the tourism experience (Sarma, 2003).

Place branding is the understanding of how marketers promote their location, while destination branding more specifically focuses on orchestrating how messages and experiences associated with a place are made to be compelling, distinctive and rewarding (Avraham and Ketter, 2013; Baker, 2012). However, places experiencing problems, especially those involving safety and security fears, become associated with these events, becoming symbols of destinations where tourists are unwilling to go. For these places, changing their image becomes difficult as media coverage begins to ignore other events occurring there (Elizur, 1987; Shields, 1991). Avraham and Ketter (2008), in addressing how destinations can restore their image and brand, applied literature on crisis management and communication strategies and proposed a new model on how localities can alter negative destination images.

Avraham (2020)identified six types of general stereotypes that destinations have faced: images of being a dull destination, lack of safety, lack of development, positive stereotypes, tough/unkind/friendly and other smaller categories. Counter strategies aimed at addressing these stereotypes include source strategies (witness testimony, blaming media, etc.), messaging strategies (acknowledging stereotypes, spinning liabilities into assets, using celebrities, softening image, promising a future, etc.), and audience strategy (emphasizing similar values, utilizing symbols and geography, changing target audience, etc.). For example, in a case study on Egypt, which has been plagued by images of conflict and instability, Avraham (2016) utilized a multi-step model that could be used to alter place image. This included, amongst other measures, cooperation and developing media relations, controlling the media, message strategies, or mitigating/limiting the scale of crisis. The types of changes generally fall into two categories, cosmetic approaches which are more superficial, including ignoring the messages, association with another destination with a more favorable image, etc., to strategic approaches which require significant investment and planning to change

images, such as hosting events, directly tackling the problem creating the negativity and counter branding (Avraham, 2014; Hudson, 2016).

3. Methodology

This study uses semi-structured interviews to ascertain the state of the brewery industry prior and after the 2011 GEJE. The interview questions used are based on a multi-step model for altering place image, where each interview question seeks to examine each step in the process.

3.1 Framework

Avraham and Ketter (2008) developed a multi-step model for altering the image of a destination (Figure 3). This model simulates a decision-making process of place marketing for destinations currently facing an image/branding crisis and provides a framework on how to counteract the negativity. The *Preliminary Analysis* phase examines the background characteristics of the area, such as information regarding its geography and demographics, the type of audiences being marketed to, and information on the crisis. The next step is the *Goals and Timing*, where planners can initiate consumption, continue consumption during or after a crisis and change the characteristics of consumption and marketing characteristics. The *Marketing Strategies* form the next step, where different types of strategies are used, such as source strategies (which are related to affecting or replacing the source of the message), messaging strategies and audience strategies. The final step, *Techniques/Channels* involves the study of how to deliver the aforementioned strategies, such as through print media, internet or television (Figure 3).

For this research, the authors modified Avraham and Ketter's multi-step model to focus more narrowly on a situation where a disaster event has affected product consumption of a local brand, and steps are taken to counteract the resulting negative images and impact (Figure 4). The first step, *Characteristics*, is similar to the *Preliminary Analysis* phase, in which background information of both the destination and market are collected. A disaster event triggers the next phase, *Brand Impact*, in which the brand of either the product and/or destination is impacted. Assuming these impacts are primarily negative, resulting in losses, the next phase is then triggered (*Marketing Strategies*), in which the local government and industries collaborate to develop strategies, similar to those listed by Avraham and Ketter (2008). These strategies are then implemented as an "action" (or series of actions), leading to the final step in which its *Effects on Destination* can be examined, namely the industries involved, the community and its image/brand (Figure 4).

3.2 Case Study area

Fukushima is the southernmost prefecture in the Tohoku Region of northeastern Japan, located roughly 160 kilometers (or 100 miles) north of Tokyo, or one hour by bullet train. The prefecture has a population of 1.8 million, the second largest in the Tohoku Region behind Miyagi Prefecture and is divided into three regions. At the west is the Aizu region, a

Figure 3 Avraham and Ketter's (2008) multi-step model for altering place image

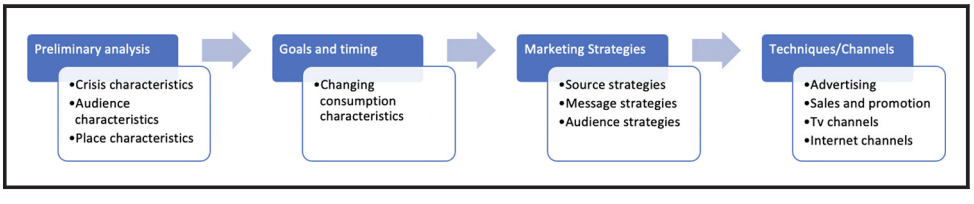
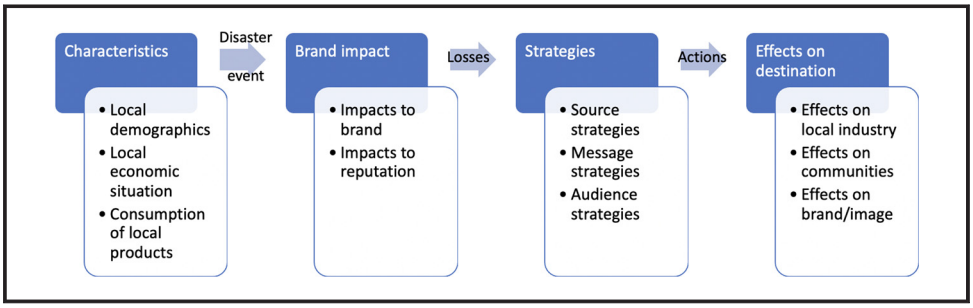


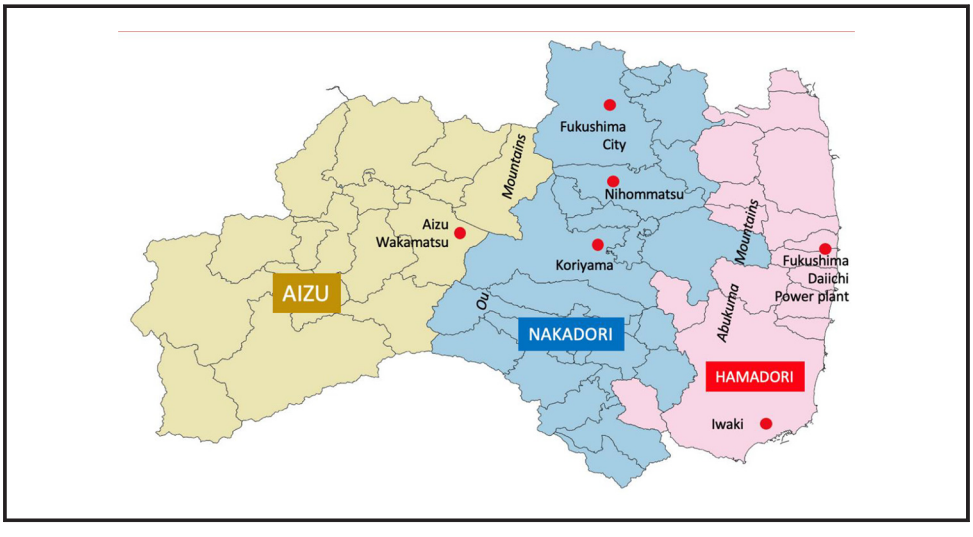
Figure 4 Proposed multi-step model to examine the impact of image altering strategies, modified from Avraham and Ketter's (2008)



mountainous area renowned for its nature and 17th century Edo period samurai architecture and monuments, creating a popular tourism attraction and with a population of 218,000. In the east is the coastal area known as Hamadori. This area has a population of 441,000, primarily concentrated in its only major city, Iwaki, in the south, in addition to the smaller towns and villages scattered along the coast. The nuclear disaster took place in the northern part of the Hamadori region. Finally, there is the Nakadori region, or the central valley, situated between the Aizu and Nakadori regions and separated from them by the Ou Mountains to the west and the Abukuma Mountains to the east (Figure 5). Due to its flatter elevation, much of the prefecture's population of 1.1 million reside here, including its largest city, Koriyama, and its capital, Fukushima City.

Fukushima is one of Japan's most renown sake producing regions and has won the national Fine Sake Award's highest honor, the Grand Gold medal, for six consecutive years from 2012 to 2019, as well as in 2010, and the second highest award, the gold medal, for 10 consecutive years from 2011 to 2020 (The Fine Sake Awards Japan Executive Committee, 2020). All breweries contacted were located in the Aizu and Nakadori regions, as the Hamadori region no longer has any active breweries as of 2020. Both regions maintain unique brewery clusters, with the Aizu breweries being centered around the city of Aizu-Wakamatsu, and the Nakadori breweries located between the cities of Fukushima City and

Figure 5 Regions within Fukushima Prefecture, (modified from GIS data from the MLIT)



Nihommatsu (20 min south of the capital).

Although Fukushima is renowned for the production of sake and other agricultural and artisanal products, the purpose of choosing it for the present research lies in its association with radiation, due to the incident at TEPCO's Fukushima Daiichi Nuclear power plant, and the negative images that began forming about the region as a consequence (Yoshida, 2016). The impact to its image was so negative that research by Nguyen and Imamura (2017), comparing branding characteristics among Tohoku's prefectures, showed that Fukushima's brand slogans often sought to disassociate the region from the present situation, instead heavily relying on messages of a future Fukushima (while other prefectures relied more on their current features, see Nguyen and Imamura (2017). These harmful rumors and images of the prefecture present a challenge for breweries to develop strategies to counter them as part of their tourism and disaster recovery campaign.

3.3 Semi-structured interviews

The authors contacted all award winning breweries listed on a prefectural brewery newspaper in 2018 by email, and out of the 19 contacted 7 agreed to be interviewed (Fukushima Sake, 2018). The interviews were either conducted in person at the brewery, or over a series of further email exchanges. As this research focuses on public–private collaboration, the authors also conducted interviews with representatives from Fukushima Prefecture's *Trade Promotion Council* and its *Tourism and Local Products Association*.

The interviews with both the breweries and the prefectural representatives were held between July 2018 and May 2019. Each interview typically lasted for one hour and were all conducted in Japanese, with the results later translated into English. The interviews were conducted by the two lead authors and started with them briefly introducing themselves and the purpose of the research. A number of lead questions were employed to initiate discussion, which are summarized in Table 1, with clarification questions being asked depending on the answers provided. These questions were designed to match each step in the framework shown in Figure 4, with the first step focusing on questions that identify characteristics of both the breweries and the prefecture in terms of its economic situation, followed by the impacts of the 2011 GEJE on their business and the strategies being utilized or considered in order to mitigate the impacts caused by the disaster. The information provided by the stakeholders through these interviews was then used to examine how these strategies are affecting the destination, particularly its industries, communities and brand/image.

Table 1 Interview questions used to answer each step of the multi-step model

Step	*Questions*
Characteristics	What was the state of the sake industry and this brewery before 2011? Who were the main customers? Has this changed?
Brand Impact	How did the disasters affect your business? What kind of effects were felt with your consumers and markets, both domestically and internationally? Have rumors affected your business?
Marketing Strategies	How did your brewery adapt to this impact? Does your brewery collaborate with others in order to negate such effects? Are you changing products or markets to offset these effects?
Effects on Destination	Who are you collaborating with to carry out these strategies? What kind of benefits have there been among the stakeholders?

Generally speaking, respondents were receptive towards the interviews and were very engaging with the authors, providing additional tours of facilities, sampling of all products and continued correspondence after the interviews. Follow up interviews were conducted in 2020 with the local government in order to obtain updated information on the status of sake promotion and tourism.

4. Results

4.1 Conditions prior to the 2011 Great East Japan Earthquake

As mentioned previously, Fukushima Prefecture has been experiencing rapid economic and population decline since its peak in the mid-1990s. Hence, the first question asked to interviewees sought to understand the situation of the breweries before the 2011 GEJE. Of the seven breweries interviewed, two reported no noticeable changes in consumption, while five listed significant impacts as a result of demographic changes. These impacts are due to a decreasing consumption of alcoholic beverages that have resulted from a declining population, which has also led to changes in consumption preferences. A brewery in Fukushima City mentioned that the 1990s were the peak for beer consumption in Japan, while a brewery in Aizu mentioned that for them the peak of sake consumption was around 1973 and has yet to recover to previous volumes, forcing the brewery to focus on more high value-added products.

4.2 Impact of the 2011 Great East Japan Earthquake

As a result of the 2011 GEJE all breweries experienced significant changes that negatively impacted production and consumption. Three breweries experienced difficulties due to a restriction imposed on all products produced in Fukushima. According to the interviews, 54 countries had banned imports of Fukushima products, which was later reduced to 27 in 2018. One brewery was affected by infrastructural damage and was unable to transport their products for one year.

The impact on local image and branding was significant. While one brewery stated there was no effect, the other six mentioned a significant effect on the foreign perception of the safety of Fukushima products, including alcohol, leading to a ban on their products. However, it is significant to note that breweries felt that the disaster had little to no effects on domestic consumption. Changes in global trade policies also led to the introduction of tariffs, which have created problems for sake exports to certain countries. The lack of English-speaking and overseas personnel have also hampered the ability of breweries to effectively promote their products overseas.

In addition, the 2011 GEJE exacerbated long-term issues facing Fukushima, such as the declining population and aging brewery-related infrastructure, a general decline in beer and sake consumption nationally that were already ongoing before the disaster and a significant impact on international consumption. Interviewees even stated that locals in the region do not drink local beer and prefer national brands. Overall, breweries also reported that there is a lower level of brand recognition in other Japanese regions, especially the further one gets from Tohoku, such as the western Japanese market.

4.3 Counter strategies and public–private collaborations

In response to the banning of Fukushima products abroad, as well as the long-term changes in domestic consumption, breweries adopted plans to diversify their products and target new markets. Four breweries indicated that they started focusing more on female customers, leading to the creation of sweeter products such as fruit-flavored alcohol and chuhai (a canned drink made with distilled alcohol and carbonated water). Three breweries have also responded that they are now targeting younger customers, as demand for

traditional rice wines is decreasing. With regard to overseas markets, and given the ban of Fukushima's alcoholic beverages in some Asian countries, three breweries have expanded to new markets abroad, namely in North America and Europe.

In order to formulate and develop the counter-strategies outlined above, the role of the local government becomes even more critical for achieving recovery and increasing resiliency. In the interviews all breweries except one reported more support from the government since the disaster. Government support comes at both the national and local levels. At the national level, the Japanese Government has been promoting "Cool Japan," an initiative to promote cultural initiatives as a form of soft power. Although Cool Japan was utilized as early as 2005 (JETRO, 2005), in an effort to strengthen economic recovery after the GEJE, in 2011 its budget was increased to Yen 19 bn or roughly US$237m (Mackay, 2010) and then to Yen 30bn yen or roughly US$289m in 2013 (Nagata, 2014).

Fukushima's prefectural government has held a number of events to help promote the products of its local breweries at both the local, national and international levels as part of its collaborative efforts. These include Fukko events (or revitalization events) in which three breweries have taken part, sponsoring overseas trips which allow breweries to promote their products to new markets and to help in promoting regional pride. Four of the breweries interviewed stated that they utilized other government subsidies which allowed them to establish new markets abroad, particularly in the USA, France and the UK. Breweries have also pushed prefectural and national governments to urge some countries to remove shipping restrictions and tariffs on exports of Fukushima products.

Breweries have also started their own initiatives, such as hosting local tasting events and creating open house events and tours, with four breweries doing so. Four breweries have also increased cooperation and partnerships with bars and restaurants, within Fukushima Prefecture and in other regions, to promote their brand. The breweries are also cooperating with the Japan Racing Association to help promote products at horse racing events.

Despite these collaborative efforts between the government and breweries, one brewery reported zero support, another indicated that the financial assistance was insufficient to cover the promotional costs incurred, and yet another stated that they felt their own internal domestic and overseas promotional efforts have been more effective than those sponsored by the government.

4.4 Community outreach and the formation of a Japanese Napa valley

All breweries interviewed have reported participating in efforts to cooperate with the local communities and with each other and to form an inclusive and coordinated recovery plan. For example, all breweries interviewed have focused on hiring employees from within the prefecture as well as buying products locally in order to support local businesses, such as Fukushima made ropes, textiles, bottles and, when possible, rice and other agricultural products used in alcoholic beverages. In some cases, there is a specific type of rice or wheat that cannot be procured locally, and special arrangements are made to source materials from other prefectures, such as nearby Niigata. In particular, three breweries have established an extensive collaboration with local Fukushima farmers, who provide them with the materials needed for production, while allowing the farmers to reduce the impacts from crop seasonality.

With the goal of promoting a comprehensive and inclusive recovery strategy, the local governments and breweries are working together to foster a common identity for the region. This common identity centers around the creation of tourism marketing that places the sake breweries at its core. The terms used vary, for example the Aizu Sake Valley Plan, as it has been referred to by breweries in western Fukushima, aims to associate its image with the famous Napa Valley of California. According to an Aizu based brewery:

> [. . .] local volunteers and sake brewers are working on sake tourism (Aizu Sake Valley plan) centered on sake and sake breweries. As in the Napa Valley in the United States and California, we are working on town development centered on wine.

At a wider scale, Fukushima Prefecture unveiled the "Fukushima Sake Story," as part of a tourism promotion campaign to highlight the various alcohols and breweries across the prefecture.

Based on the interviews with the breweries, to strengthen regional cohesion breweries hold weekly meetings with each other and the local communities in order to improve coordination and joint promotions. In addition, a sake brewery academy is held with the purpose of exchanging technical knowledge and information. A part of the change to strengthen regional identity is to promote Fukushima as having the most advanced brewing process in the country, combined with the strictest safety standards. This is done in collaboration with local governments, universities and research institutions. The information gained is passed on to improve the distilling processes in local breweries. Three of the breweries interviewed have attributed the region's constant victories in national sake competitions to the incorporation of new technologies developed from this local collaboration scheme.

5. Discussion and conclusion

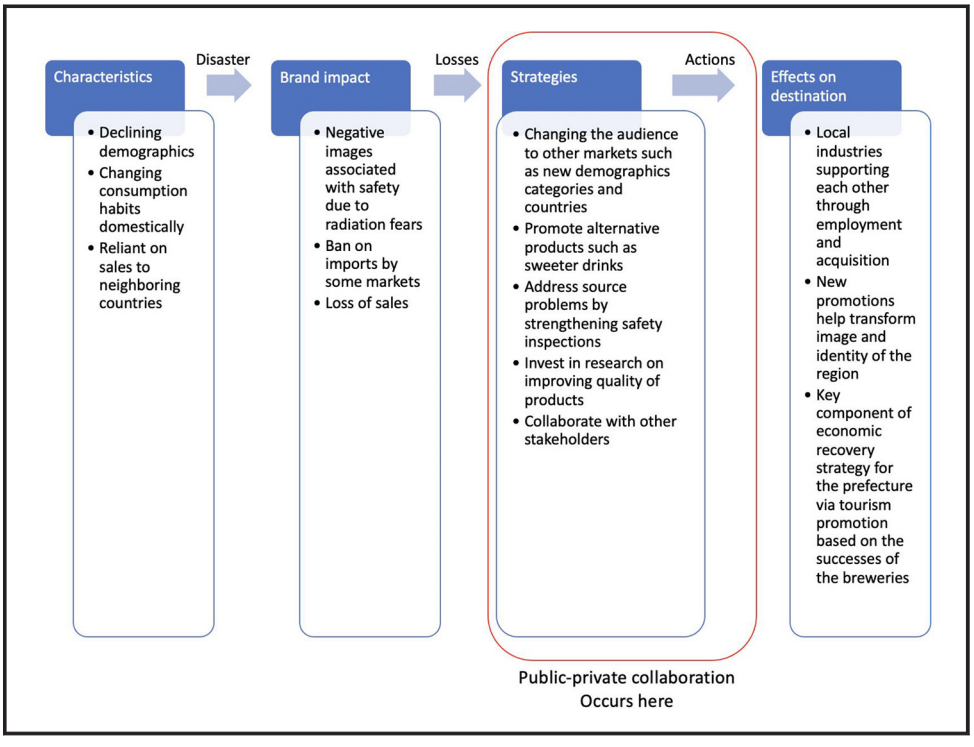
The 2011 GEJE exacerbated the economic and demographic decline of Fukushima Prefecture. However, unlike other prefectures that were affected by the earthquake and tsunami, Fukushima also had to contend with a nuclear meltdown. Although radiation fears were primarily concerned with coastal areas, consumers started to perceive the entire prefecture to be at risk of being contaminated by radiation, leading to a decline in the consumption of local Fukushima Products.

This research examined how stakeholders in Fukushima's sake industry used disaster marketing campaigns to negate the effects of the economic crises caused by the accident at the Fukushima Daiichi Nuclear Powerplant. The Sake industry was chosen as this is one of the products the prefecture is renowned for, the primary target of a public–private collaboration to counteract these negative images and a core part of the prefecture's image recovery strategy for tourism. By utilizing a conceptual multi-step model for altering place image, derived from Avraham and Ketter's (2008) work that combined crisis management, destination marketing and image restoration, a series of semi-structured interviews were conducted with the sake industry, tourism organizations and the local government. Through these interviews, the authors were able to acquire information on the situation prior to the disaster, the impacts of the disaster on the sake industry and its image, strategies that are being implemented to alter these negative images and the ongoing effects of these strategies on the sake industry and the destination.

5.1 Characteristics and Brand impact

Based on the data collected, it is possible to illustrate the processes Fukushima's sake industry took in their attempt to alter the negative images that have affected the prefecture and the industry (Figure 6). Prior to the disaster the declining population had already impacted domestic alcohol consumption. After the 2011 GEJE, there was a *Brand Impact*, as radiation fears (both domestically and internationally) led to a significant negative impact on sake producers, who were faced with multiple export restrictions and even the loss of entire markets. These losses triggered the need to develop strategies to overcome these negative impacts on the brand and alter the local image.

Figure 6 A strategy for altering destination image based on the experiences of Fukushima's breweries



5.2 Marketing strategies

Marketing Strategies can be divided into two categories, those that use a cosmetic approach and those that use a strategic approach. Cosmetic approaches generally focus on utilizing messages to change how a destination is perceived, such as disassociating the destination from the problem, associating the destination with a more favorable image or creating counter-messages. On the other hand, strategic efforts require more direct approaches to address the problems that generate negative images, which includes directly tackling the problem, or hosting spotlight events, among others. Compared to cosmetic approaches, which are generally simpler and often marketing focused, strategic approaches require significant investment and time to implement (Avraham, 2014; Nguyen and Imamura, 2017).

From the information provided by the interviews with the breweries, Fukushima prefecture has adopted both approaches, in which an association with another destination that has a more favorable image, such as Napa Valley, is less costly and easier to implement. However, long-term and more serious concerns over radiation have also pushed the prefecture to adopt a strategic approach, by directly tackling the main problem regarding fears over product safety. This was done through enhanced and stricter safety tests and significant counter-branding by focusing on changing the image and brand of the destination as a new type of sake tourism destination, moving beyond its past strategy of disassociation and focusing on the future while ignoring the present. Alternative products were also promoted to better cater to changing local demographic trends, such as sweeter alcohols aimed towards women and youth.

Finally, a more thorough strategy of altering the actual image of Fukushima was also implemented, by highlighting safety and security measures being implemented in order to demonstrate that the prefecture's sake was among the safest and most technologically advanced in Japan. As strategic approaches generally require significant investment, public–private partnerships can be beneficial as the private sector can use the resources from the government (Nguyen and Imamura, 2017). In the case of Fukushima, the municipal government assisted local producers by sponsoring and subsidizing a number of events that allowed the breweries to promote their products to new markets and develop and strengthen branding. Likewise, the breweries themselves also collaborated with other industries and nearby communities to maximize employment and use of regional resources (Figure 6).

5.3 Effects on destination

These strategic changes have had an *Effect on the Destination*, contributing to the success of the recovery of the sake industry in Fukushima, as many of its breweries have continued to win the nation's top sake awards for nearly a decade. Based on the authors' interviews, areas outside promotional regions within Fukushima are still promoting their own sake industries as part of a local tourism marketing plan, with Fukushima City focusing on craft beers in addition to sake. The collaboration between the breweries, local communities and local governments has also strengthened business and economic links between industries, helping them to become more resilient. This continued partnership has translated into a key component of the economic recovery, as local governments seek to capitalize on the growing notoriety of Fukushima's sake, by developing sake-centric tourism in its tourism plans.

5.4 Limitations and future research

However, despite the success of the recovery of the sake industry in Fukushima, it is still too early to determine whether the much broader tourism recovery marketing plans are successful. Beyond sake, there are reports that Fukushima's other famed industries, such as its peaches, continue to struggle with negative images regarding safety and have yet to recover (Brehaut, 2020). In addition, as the Napa Valley style campaigns are still relatively recent, more time may be required to better understand how they have contributed to tourism numbers and economic growth in Fukushima.

While this research contributes to theories on crisis management, destination marketing and image restoration by providing real world applications and experiences, the study focused only on the supplier side of image rebranding, particularly from the perspective of the breweries. An additional study focusing on the changes in the perceptions of Fukushima products from the consumer side could also provide valuable insights on how they may change over time and how these changes (or lack of) can be used to inform policy makers and the breweries on future marketing strategies.

There were hopes that the 2020 Tokyo Olympics could attract tourists to Fukushima and expose more audiences to the prefecture's products, as it was supposed to host several Olympic Venues. However, the 2020 COVID-19 pandemic has undoubtedly reduced the number of visitors (with a reduction of 77% and 82% in domestic and foreign visitors, respectively, between January and August of 2020 compared to the same period in 2019, according to JNTO, 2019, 2020; JTB, 2020). At time of writing, although the Tokyo Olympics were delayed to 2021 it is currently unclear if the pandemic situation will allow for a successful hosting of this event.

Although the interviews focused on sake breweries in the region, future research could also expand to include wineries, as these have also won awards such as the 2020 Japan Wine Challenge in the cider category (Fukushima Television, 2020). Additionally, future research

should continue to analyze the developments in the region across all alcoholic beverage industries (rice wine, grape wine, beer, etc.) and whether the strategies used have helped it on the path to achieve business continuity.

Finally, while prefectural statistical data has indicated that tourism numbers were on track to return to pre-disaster levels, the 2020 COVID-19 pandemic is likely to significantly affect recovery. This new challenge will likely require tourism planners and the breweries to revise their marketing strategies, and further research could shed better insight on the specific type of obstacles Fukushima is now facing in light of this recent development.

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