[Original Paper]



The Potential of Wine-Tourism for Preservation of Agricultural Resources for the Future Generations: A Case Study of Katashimo Winery in Japan

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We examined efforts to revitalize and reorganize grape- and wine-producing areas through the development of wine tourism business, paying attention to pioneering cases that have achieved results, and empirically clarified the conditions and deployment mechanisms. The purpose of this study was to sort out the roles of wine tourism projects in the conservation and succession of local agricultural resources. We studied pioneering cases of wine tourism related businesses being developed in grape- and wine-producing areas in Kashiwara City, Osaka, Japan. Focusing on the existing production theory, we considered the driving force behind the revitalization and reorganization of grape- and wine-producing areas; the stance of individual agricultural management bodies; the roles of producer organizations, networks and local entities, as well as government and public institutions; assistance; consumer benefits; and consumer feedback. Most of the businesses being developed are operated mainly by volunteer organizations with the support of Katashimo Winery. However, regarding the sustainability of those businesses, it is necessary to keep an eye on future development. In particular, the governance, management, and transition of each volunteer organization/entity should be studied further. Based on current considerations, we found that the leaders recognized the "value" of the locality, and this has motivated them to participate in wine tourism.

Keywords: wine-tourism, agricultural resources, innovation, custom crush

Introduction

Japanese winemaking in general assumes that wine quality is significantly shaped by local ambiance. Meanwhile, sustaining agriculture necessitates the preservation of resources for agricultural production, including land and water, in intact conditions for the next generation. This has evolved into a grave challenge in Japan where, as explained later, its aging farming population has made it extremely difficult to sustain agriculture. Therefore, for Japanese winemakers to survive and thrive, it is a criti-

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cal challenge for them to find innovative alternatives to protect agricultural resources in surrounding areas.

As Japanese wine producers also face the prospect of increasing competition from foreign wine producers, it is imperative that the quality of domestic wines improve to a level comparable to foreign wines. In order to achieve this goal, a winery business model that is sustainable and in tune with Japan's four seasons and viticultural practices must be re-established. Sato (2019) pointed out that the average operating income of a winery is 10 million yen and management faces a dire situation. Of the approximately 300 wineries in Japan, 51 have reported a business deficit. In this context, we look into how a winery can establish a mutually beneficial collaborative relationship with the local agricultural industry through wine tourism.

Agri-tourism has been described by some as comprising three distinct yet overlapping perspectives (Alsos and Carter, 2006). The innovation-based perspective is derived from the work of Schumpeter, who views agri-tourism as the creation of an imbalance in the market based on a new combination of resources, including new products, new processes, new markets and/or new organizational solutions (McElwee, 2006). The business-formation-based perspective views agri-tourism as the process of creating new business organizations with entrepreneurial intent to develop and establish new organizations. This process of creating new business organizations is defined by organizational emergence (Carter, 1998). The opportunity-based perspective places the pursuit of an opportunity at the core of agri-tourism (Mosakowski, 2002). Studies typically take as a starting point Kirzner's (1997) view of an 'alert entrepreneur', who identifies business opportunities as imperfections in the market and coordinates resources to exploit these opportunities, thereby restoring market equilibrium. In this perspective, agri-tourism is defined by the discovery and exploitation of business opportunities (Mosakowski, 2002).

In this study, we examined the potential of wine tourism for Japanese winemakers to work effectively with local stakeholders, thereby preserving agricultural resources for the future generation. A case study of Katashimo Wine Foods Co., Ltd. (Katashimo Winery, hereinafter) in Osaka, Japan delineated how it gradually mobilized a variety of stakeholders attracted to its tourism activities, including consumers, chefs, supermarkets, and the media, who eventually organized volunteer groups and grew grape to produce wine by the winery's custom crush operation.

Materials and Methods

The case study of Katashimo Winery was carried out. This winery presented a trajectory of development by tapping into wine tourism while involving local stakeholders who became avid devotees of the winery and reorganizing local agricultural resources for wine production. We performed an analysis to identify achievements that led to success.

We conducted a questionnaire survey for the volunteers of this winery. The questionnaire was created in March 2017 and distributed from April to July of the same year. We received 83 valid responses from 39 males and 44 females. The responses were processed for missing values and converted into IBM/SPSS (statistical analysis software) format data for analysis.

Results

We examined an innovative winery that tapped into wine tourism as a springboard for mobilizing locals and worked together with them to revitalize and reorganize vineyards in the surrounding localities renowned for grape production. The case study of Katashimo Winery in Osaka empirically unpacked the winery's development mechanism and determined the conditions enabling it, thereby clarifying the roles and potential of wine tourism in the reorganization and preservation of agricultural resources, vineyard land in particular, for the future generation.

Our analysis focused on grape growers' perception of and attitude toward the winery and its business, the roles of organizations and networks involving local stakeholders, support by the public sector, and merits for and feedback from consumers, in order to identify the motivation and thrust behind the effort to restore local viticulture and economic vitality.

The history of Katashimo Winery could be traced back to the late 18th century when Risaburo Takai, the father of the founder, started cultivating land and growing grapes on the foothills of Ikoma Mountains in Kashiwara area, east of Osaka. In 1912, his son and founder, Sakujiro Takai, finally succeeded in making wine after countless failures. Since its foundation, the winery has been striving to introduce technological innovations to improve its products and enhance competitive edge, thereby eliciting as much profit as possible from grapes. The development of unique and novel products has been its key to success. Accordingly, in 2015, Katashimo Winery recorded total sales of 250 million yen and current operating profit of 180 million yen. Marginal profitability ratio reached approximately 55%. This was a remarkable achievement in the Kashiwara area, which has long suffered from a sustained decline in sales of grape, the local main agricultural product.

Examples of the winery's unique ideas and product lines include spirits, such as grappa, and non-alcohol wines, elaborated with byproducts and wastes from fermenting wine. These products are an effective tool for the winery to convey to consumers its stance to pursue exquisite quality while simultaneously preserving the environment.

Another distinctive product is the sparkling wine *Tako-cham* (Fig. 1, left), which is crafted using *methode champenoise*, a well-known in-bottle secondary fermentation technique. The name *Tako-cham* originated from the winery's aspiration for creating wine with the Delaware variety (a *Vitis* labrusca cultivar) that goes well with *takoyaki* (Fig. 1, right), a Japanese snack featuring octopus. In fact, the Osaka area is renowned for the production of Delaware grape and being the "Capital of Takoyaki."

The robust business foundation built on technological



Fig. 1. Taco-cham (left) and Tako-yaki (right)

innovations allowed the winery to pour extensive efforts into raising the awareness of its products and the grapeproducing areas. One such attempt was to explore the possibility of wine tourism in the early 1990s when such a concept was barely known. After Katashimo Winery first opened its vineyards to visitors in 1990, a growing number of visitors toured the winery and vineyards (Fig. 2) and appreciated the unique characteristics, or the terroir, of the locality. The backgrounds and professions of the visitors were diverse, including journalists of a major newspaper, members of a restaurant owners association in Osaka, employees of a local supermarket, hair stylists, and chefs.

Attracted to the terroir and fascinated by winemaking, the visitors eventually organized groups and started working on abandoned land to grow wine grapes. Not only did Katashimo Winery help these novice and amateur grape growers learn viticultural practices, it also accepted grapes grown by the volunteer groups for its custom crush operation so that the groups created original wines with their own grapes. Table 1 chronicles major events through which the volunteer groups and the winery established a collaborative partnership through wine tourism activities.

Clearly, the collaborative partnership between Katashimo Winery and its devoted volunteers, which was developed through wine tourism, contributed to preserving land resources. Moreover, the positive outcome of the collaboration led to the establishment of Osaka Wineries Association. Seven wineries were established in the Kawachi region, and the most recent one was established



Fig. 2. Visitors touring at a vineyard

in 2010. In the establishment of the new winery, existing wineries provided training on vineyard acquisition and winemaking techniques, confirmed the potential of grapes through custom crushes, and supported the smooth establishment of the new winery.

As mentioned above, the wine industry cluster that emerged from the grape-producing area where traditional wineries were concentrated had connections to grape seedling suppliers and a strong bargaining power because it purchased large quantities of materials. Liquor stores and winemaking techniques accumulated in the region in the course of time, leading to the acceptance of new wineries. Today, Osaka Wineries Association actively organizes wine festivals and other events to attract wine lovers.

1) Existence of "Wine/Natural Feeling Type (Type 1)" and "Continuous Participation Type (Type 2)" volunteers

In 1990, Katashimo Winery opened its vineyards to visitors as its first attempt at wine tourism. In 2003, the winery started working on the revitalization of abandoned vineyards in cooperation with restaurants and liquor stores. Since then, its partners have expanded to other members, such as a wine shop and a broadcasting station, and it is currently working with approximately ten organizations.

The following points were clarified on the basis of the results of a questionnaire survey for volunteers belonging to the ten organizations. First of all, the volunteers were classified into two types. Type 1 consisted of business partners of liquor stores and their customers, and Type 2 consisted of managers of service businesses, such as restaurants and beauty salons, and their families and employees.

As shown in Table 2 and Fig. 3, Type 1 consisted of business partners of liquor stores and their customers. Volunteers belonging to this type accounted for 56% of the total, of which 74.3% had participated in volunteer work for the first time and only once a year. This type of volunteers was further subdivided into two groups on the basis of motivation: One group was motivated by "Working in nature" and the other group, by "Interest in Osaka wine" and "Interaction with the winery". For this

 Table 1. Chronicle of collaborations between volunteer groups and Katashimo Winery

Year	Major event
1990	- Katashimo Winery opened its vineyards to visitors, marking its first attempt at wine tourism
2003	 Restaurant Kahara, members of restaurant owners' association, and liquor store owners began working to revitalize abandoned vineyards
2010	- Other small groups, such as Bar Jazz Farm, began working to revitalize abandoned vineyards
2011	 Wine Shop Fujimaru began working to revitalize abandoned vineyards (Three years later, the group established its own winery in Osaka)
2013	 Members of Mainichi Broadcasting System (MBS) began working to revitalize abandoned vineyards

Table 2. Numbers of Type 1 and Type 2

$W'_{PP} = (a + b + 1) + (a +$							
Wine/natural Feeling Type (Type1)							
Number of participations per year							
1	2	3	4	5	6 or more		
42	4						
Years of participa-tion							
1	2	3	4	5	6 or more		
35	8	1	1		1		
Continuous Participation Type (Type2)							
Number of participations per year							
1	2	3	4	5	6 or more		
16	3	7	2	3	6		
Years of participation							
1	2	3	4	5	6 or more		
7	5	8	5	5	7		

reason, this type of volunteers was regarded as "Wine/ Nature Feeling Type (Type 1)".

On the other hand, Type 2 was composed of managers of service businesses, such as restaurants and beauty salons, and their families and employees. Volunteers belonging to this type accounted for 44% of the total, of which 66.7% had participated in volunteer work for more than three years, with an average participation of 3.4 times. This type of volunteers was further subdivided into two groups on the basis of motivation: One group was motivated by "Invitation from bosses and friends" and the other group,



Fig. 3–1. Motivations for participation

Note: Multiple answers accepted for the top two motivations for participation.



Fig. 3–2. Motivations for participation

Note: Multiple answers accepted for the top two motivations for participation.



Fig. 4. Number of participations and rewards

by "Interest in Osaka wine and grapes" and "Working in nature". For this reason, this type of volunteers was regarded as "Continuous Participation Type (Type 2)".

Vineyard tours of Katashimo Winery, which is involved in the wine tourism business, were implemented in addition to the management of vineyard and harvesting. This led to the acquisition of new volunteers. Compared with "Traditional wine countries", the areas where small and medium-sized wineries are located were little recognized as wine regions. For this reason, "Interest in Osaka wine" and "Interaction with the winery" offered opportunities for volunteers to join. It was also necessary to develop local resources that could be used for wine tourism by promoting cooperation with the local community and collaboration between local agricultural products and wine.

2) Value and sustainability found by volunteers

The results of the questionnaire survey indicated that the majority of the work performed by the "Wine/ Nature Feeling Type (Type 1)" volunteers was pruning and field management (83.5%), whereas the "Continuous Participation Type (Type 2)" volunteers were involved in a wide range of work, including harvesting and winemaking. Because the percentage of respondents who would like to participate in other wineries in the future reached 96.2%, we concluded that both the "Wine/Nature Feeling Type (Type 1)" and the "Continuous Participation Type (Type 2)" volunteers found satisfaction in volunteer work.

As shown in Fig. 4, 68.7% of all (Type 1 and Type 2) volunteers indicated that they do not need any reward or would like some form of reward if possible. Future activities that they wish to carry out included events (48.4%), grape harvesting (59.3%), and winemaking (54.6%).

3) Development of "Wine/Nature Feeling Type (Type 1)" volunteers

As of 2013, Osaka has the 7th largest grape cultivation area (416 ha) and the 3rd largest Delaware cultivation area in Japan. However, due to the aging of farmers and the decline in prices, the cultivation area had decreased by approximately 15% from 2007 to 2016.

At Katashimo Winery, volunteer activities initially centered on an experimental vineyard and gradually expanded to other vineyards. "Continuous Participation Type (Type 2)" volunteers who indicated that "it is fun to drink wine made from grapes that they have cultivated" accounted for half of all volunteers. On the other hand, the other half of volunteers participated for the first time and most of them belonged to "Wine/Nature Feeling Type (Type 1)". Therefore, it should be noted that continued participation by volunteers was always realized.

One of the reasons why Katashimo Winery's "Wine/ Nature Feeling Type (Type 1)" volunteer work persisted was that the volunteers themselves found value in their work, which they considered was worth more than any reward. As volunteers working in the vineyards and exploring the surrounding areas, they proposed sightseeing tours by combining winery resources and local resources and holding a BBQ party in the vineyards. It can be said that finding an activity by themselves has led to the continuity of the project for 15 years.

Generally, there are two possible directions for wine tourism. The first direction is to develop tourism business in relation to local resources. Utilizing the historical and cultural resources of the region with the winery as the core and the region as a "wine-producing area" is appealing. The second direction is to use wine and winery resources for appealing wine culture and winery to consumers. In the case of Katashimo Winery, the former direction for wine tourism has been taken on the basis of various resources existing in the wine-producing area of "Osaka Kawachi". It is indispensable from the business management aspect to secure "Wine/Nature Feeling Type (Type 1)" volunteers.

4) Continuation factors and issues surrounding "Continuous Participation Type (Type 2)" volunteers

Fig. 5 shows changes in motivation for initial participation and continuation factors for "Continuous Participation Type (Type 2)" volunteers. The motivations for initial participation were personal relationship, such as "Invitation from boss", "Interest in Osaka grapes and wine", and "Working in nature", as shown in Fig. 3.

First, volunteers who participated on the basis of personal relationship, such as "Invitation from boss", changed their reason for participation because they became interested in the vineyard and winemaking through their work and interaction with other members. Based on this, it was considered that various volunteer activities conducted by Katashimo Winery would be important for



Fig. 5–1. Changes in volunteers' motivation Note: Arrows indicate main routes of transformation.



Fig. 5–2. Changes in volunteers' motivation Note: Arrows indicate main routes of transformation.



Fig. 5–3. Changes in volunteers' motivation Note: Arrows indicate main routes of transformation.

securing volunteers in the future.

Second, volunteers who participated because of "Interest in Osaka grapes and wine" changed their reason for participation because they wanted to contribute to sustaining local agriculture in addition to learning about grape cultivation techniques. This indicated that the volunteers were moved by the explanation of the current situation of grape cultivation by Katashimo Winery. On the other hand, it was pointed out in the questionnaire survey that there was a lack of staff to work with volunteers in the field, and in the future, training leaders who can provide technological guidance would be essential.

Third, volunteers who participated because they were motivated by "Working in nature" changed their reason for participation after improving their grape cultivation techniques, and continued to interact with members of other organizations. In particular, volunteers recognized the difference between grapevines that they managed and those that were unmanaged. This gave them an important opportunity to gain a sense of accomplishment, and the fact that their volunteer work contributed to the maintenance of local agriculture also led to a sense of accomplishment. On the other hand, the participants of this group were in their 30s and it was difficult for them to participate in activities with small children. Existing issues include the introduction of events and activities for children of volunteers and the development of facilities.

Discussion and implications

In this area that has been traditionally known as a grape-producing area, grape cultivation experience is the core of wine tourism business. This area has also developed a wine tourism business that utilizes local historical resources. There are vineyards in surrounding areas and BBQ events are held with the vineyards as the backdrop. In addition, by participating in other events, consumers are also able to experience cultural and historical tourism.

Interviews of volunteers have revealed four factors that contribute to the success of grape cultivation experience. These factors have enabled the establishment of partnerships between amateur growers' groups and Katashimo Winery, as follows. First, Delaware, a historical variety that has demonstrated high adaptability to the area and is easy to manage, was selected for the groups to plant in abandoned vineyards for revitalization purposes.

Second, for learning pruning techniques, the verticalshoot-positioned trellis, rather than the horizontal trellis, the most common training system in Japan, was adopted for easier access and better workability by novice volunteers.

Third, short-cane pruning (severe spur pruning) was adopted for its simplicity. In this region, short-cane pruning had not been recommended because it could significantly reduce the size of clusters and intensify the acidity of Delaware berries. However, short-cane pruning unexpectedly brought about higher concentrations of components in berries, resulting in better wine quality.

Fourth, volunteers were allowed to participate in farm work at their discretion. The winery's proximity and access to downtown Osaka area also allowed volunteers to schedule flexibly their visits to the area. As a result of collaboration, for the period between 2003 and 2016, more than 2.0 ha of vineyards were revitalized and reorganized.

The activities presented in the case study were undertaken mostly by the volunteer groups with the assistance of Katashimo Winery. It could be argued that the wine tourism experience, including visits to the winery and vineyards, inspired visitors to become volunteers who eventually appreciated the value of residing in the locality. It followed that recognition of the value of the locality motivated volunteers to take further actions to reinforce the value.

Consumers give certain feedback to a local area. The elements involved in this local feedback mechanism include not only consumers but also (1) physical and biological environments, which can be called "bounty of nature," (2) wineries and grape growers, (3) relevant organizations, including Osaka Wineries Association, and (4) public institutions. Being interconnected to each other, these elements serve to revitalize and reorganize local agricultural resources for the future generation. This mechanism is illustrated in Fig. 6.

Under the physical and biological environments for agricultural production (the most important) are three



Fig. 6. Mechanism of wine tourism for preservation of agricultural resources

elements: (1) wineries and grape growers, (2) relevant organizations, including Osaka Wineries Association, and (3) public institutions. These three elements influence each other and together, can enhance the potential of wine tourism. What is important is that the actors, who are consumers, provide feedback to enhance the potential of wine tourism.

For instance, volunteers who participated in grape cultivation and winemaking eventually came to appreciate the value of the locality, which was further enhanced by the purchase of wines made of grapes they produced. Katashimo Winery, while offering assistance to volunteers, accepted volunteers' grapes for custom crush, sold the wines to volunteers, and consequently managed to strengthen its financial position. Furthermore, seven wineries in Osaka established the Osaka Wineries Association in 2012 and later, 14 wineries established the Kansai Wineries Association in the Kansai region, which consists of Osaka, Kyoto, as well as Hyogo, Shiga, Nara, and Wakayama Prefectures. These organizations worked together to create a shared vision among wineries in the Kansai region. The story of Katashimo Winery and its volunteers has been incorporated into the curriculum for elementary and secondary schools in Osaka City and Kashiwara City. The story is expected to inspire students to learn about the value of their locality so that they would become proud members of their locality.

These are some examples of ways by which relevant local actors can connect with each other through wine tourism. Other potential connections among and collaborations by local stakeholders who can develop new business activities related to wine tourism are available.

Conclusion

From our case study and analysis, we found how Katashimo Winery's wine tourism, which boasts of attractive landscape contents, such as vineyards and wineries, mobilized people from within and outside the area to work together for the revitalization and preservation of vineyards while ensuring economic viability.

The abilities, skills, and technological know-how of individual management bodies are the most important contributors to the regeneration and revitalization mechanism of farmland. Effort and patience in nurturing those qualities as well as administrative support is essential. In addition, it is important for local communities and local residents to understand the efforts. Motivation is necessary because the regeneration and revitalization mechanism of farmland has been elucidated. Motivations for the regeneration and revitalization of farmland include new developments in individual management, expansion of scale, introduction of new crops, sixth industrialization, value creation by people outside the region, regional revitalization as social contribution activity, personal circumstances, and accidental circumstances. Regardless of the reason, it is possible that the regeneration and revitalization mechanism will start when there is strong motivation.

Nonetheless, it can be reasonably assumed that the analysis of the role and potential of wine tourism would provide useful insights into finding better alternatives for the preservation of local agricultural resources for the future generation.

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次世代への農業生産諸資源の継承に果たすツーリズムの可能性 - カタシモワインフーズ株式会社を事例として-

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ワインツーリズム事業の展開を通じてブドウ・ワ イン産地の再生・再編に挑戦し、一定の成果を上げ てきている先進的事例に着目し、その条件と展開メ カニズムとを実証的に明らかにしつつ、ワインツー リズム事業がこの条件とメカニズムとを通して地域 の農業生産諸資源の保全・継承に果たす役割と可能 性について整理することを課題とする。

その際,具体的に我が国におけるこの種の先進事 例として大阪府柏原市地域のブドウ・ワイン産地で 展開されているワインツーリズムにかかる諸事業の 事例(カタシモワインフード株式会社と大阪ワイナ リー協会)に焦点を当て,既存の産地論を踏まえた うえで,ブドウ・ワイン産地の再生・再編の原動力 を,個別農業経営体のスタンス,生産者組織・ネット ワーク・地域関連主体の役割,行政や公的機関の支 援, 消費者の得る効用と消費者からのフィードバッ クといった側面に分けて考察し, 課題に接近する.

事例で展開されている各事業は、カタシモワイナ リーの支援の下、その多くが有志組織が中心となっ て運営されてきている.しかし、これら事業の永続 性に関しては、まだ緒についたところと言え今後の 展開に注視していく必要がある.特に、各任意組織・ 事業体に関する統治と経営についてはその変遷も含 め今後の検討課題となろう.その上で、現時点での 考察を踏まえれば、各事業の担い手が当初のワイン ッーリズムへの参加を契機に、地域に存在するある 種の「価値」を認識し、その「価値」のさらなる形 成と可能性の追及を目指して事業化に進んだといえ る.