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Sustainable Coastal Business Strategies for Cultured Pearl Sectors: Agenda Development for Coast-Area Actors' Collaboration

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Abstract: This study was conducted to propose and identify suggestions for pathways to maintain the sustainability of the pearl industry, a cultural value asset rooted in the region, and to revitalize coastal communities through the pearl industry. Using a qualitative approach, this study sought the opinions of relevant stakeholders based on key themes from the literature review and compiled an agenda for further research and discussion. Specifically, focus group discussions were held with pearl industry stakeholders, local residents, the pearl industry and organizations, tourists, and the public sector, and the views among the four stakeholder groups were analyzed. As a result, the following factors were identified as likely to contribute to the sustainability of the cultured pearl industry: (1) co-creation of value through collaboration between the local stakeholders and local communities (satoumi), (2) efforts to pass on and innovate traditional cultured pearl technology seeking global markets, and (3) enhancement of industrial support measures in coastal areas through collaboration between residents, industry, and government to create an ecology-focused inbound tourism strategy. Stakeholders are strongly aware of the need to promote to the world the value of unique cultured pearls and gemstones that rely on traditional Japanese technology and to attract tourists, along with the development of the next generation of pearl industry leaders, but further systematic intervention is required to achieve this goal. The results of this study are expected to serve as a basis for the next steps in presenting further suggestions through integrated analysis with quantitative economic data. They may also provide guidance for the development of pathways to regional development through the revitalization of local industries and tourism innovation in other coastal regions of the world.

Keywords: sustainability; cultured pearl business; community-based collaboration; regional development; satoumi (coasts with sealines)



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1. Introduction

A pearl is formed from a grain of sand or grit that rolls around inside an oyster, taking on a film of calcium carbonate, aragonite, and calcite that grows over time: usually 1 to 2 years. Pearls possess an iridescent quality known as 'orient'. This is caused by the structure of the pearl. The secretions of calcite are so small that light waves usually reflect from the pearl gemstone, giving it wonderful hues and an aura effect.

The Japanese cultured pearl industry has been supported by family-based small businesses in the western part of mainland Japan. The cultured pearl technique was invented by Kokichi Mikimoto in 1868; since then, Japan has been at the forefront of the industry, enhancing it globally and setting the standard for luxurious jewellery.

The Japanese cultured pearl sectors are not only an industry with local stakeholders but also a key actor in sustaining regional tourism businesses [1]. The decline of the pearl industry has also had a negative impact on relevant stakeholders in local community-based businesses.

1.1. Research Gaps and Rationale of the Study

'The Basic Policy on the Promotion of the Pearl Industry and Pearl-related Jewellery Culture' (Pearl Promotion Act) was introduced by the Ministry of Economy, Trade and

Industry in 2016 [2]. In order to support pearl cultivation, which itself helps the craft industry by relying on traditional Japanese techniques, the government intervened to design a comprehensive support scheme for the promotion of the pearl industry. This entailed discussions between businesses involved in pearl cultivation (Mie, Nagasaki, and others), processing bases (Kobe City), the prefectures concerned, and a questionnaire survey (the Akoya League). The scheme was implemented in 2017; after this, the momentum for industrial support through industry–government–academia collaboration grew [3].

Akoya pearl production has shown a significant decline from USD 840 M in 1990 to USD 154 M in 2014 [2]. In response to this decline, the relevant sectors must strategically plan marketing promotions and supportive interventions to sustain businesses. In order to maintain sustainability in the market as an industry, producers must also improve product quality, develop products, and adopt a manufacturing attitude geared towards matching market trends in order to maintain an increasing supply–demand balance of pearls as a product [4]. So far, the major themes of previous overseas studies in this field seem to fall into two broad categories: (1) sustainability through countermeasures against seawater pollution and improvement of shellfish habitat and proliferation of species and (2) maintenance of production and enhancement of competitiveness in the international market. The main themes of co-creation of value through collaboration among stakeholders in coastal areas and maintaining the sustainability of the pearl industry, which were the focus of this study, are barely mentioned.

1.2. Research Questions

On the other hand, a movement that has recently been attracting interest is the elaboration of inbound strategies with the pearl industry at its core. Since the enactment of the above-mentioned Pearl Promotion Act in 2016, this has been an attempt to support pearl farming technology and the local tourism industry linked to the pearl industry, i.e. to promote community-based inbound tourism based on the cultured pearl industry [5].

Possible avenues have been discussed and proposed on how to enhance inbound tourism in Japan based on local products, such as Japanese food and cultural attractions. In line with this perspective [6], for instance, the case of Shanghai, China, was examined with a focus on local assets, including the oriental pearl industry [7]. The potential of the strategy is considered and provides a useful framework for discussion that can contribute to combining local business and inbound tourism. However, there is a lack of research depth on the topic of how to integrate two important elements of the pearl industry, the cultured pearl industry, and the promotion of tourism in specific regions as an integrated strategic plan.

Therefore, research questions of the study are as follows:

- (1) What measures are necessary to maintain the sustainability of the cultured pearl businesses in coastal areas?
- (2) Is it an effective measure to promote stakeholder collaboration for the development of the cultured pearl businesses? If so, what factors should be taken into consideration?
- (3) Can cultured pearls be an attraction for tourism in the area?

Then, focusing on the above research gap, this study takes one of the major cultured pearl production areas located in the Ise-Shima region of mainland Japan, examines the potential and prospects for an inbound tourism strategy with the cultured pearl industry at its core, and proposes models and issues for further discussion and policy development. While sustainability can be broadly defined as a social goal that aims for the long-term safe coexistence of humankind on the planet, this study focuses more on pinpointing the theme of long-term economic prosperity of the pearl industry and the coexistence of all parties involved, with a focus on the stakeholders related to the pearl industry in coastal areas. We will focus on the perspectives and attitudes

2. The Cultured Pearl Industry in Japan: Ise-Shima Area

2.1. History and Discussion of the Japanese Cultured Pearl Industry

There has been only limited research that focuses on cultured pearls in Japan from the aspects of entrepreneurship and business management. The cultured pearl industry comprises small business entities, and public supportive methods should be implemented to help sustain them [8] (Figure 1).

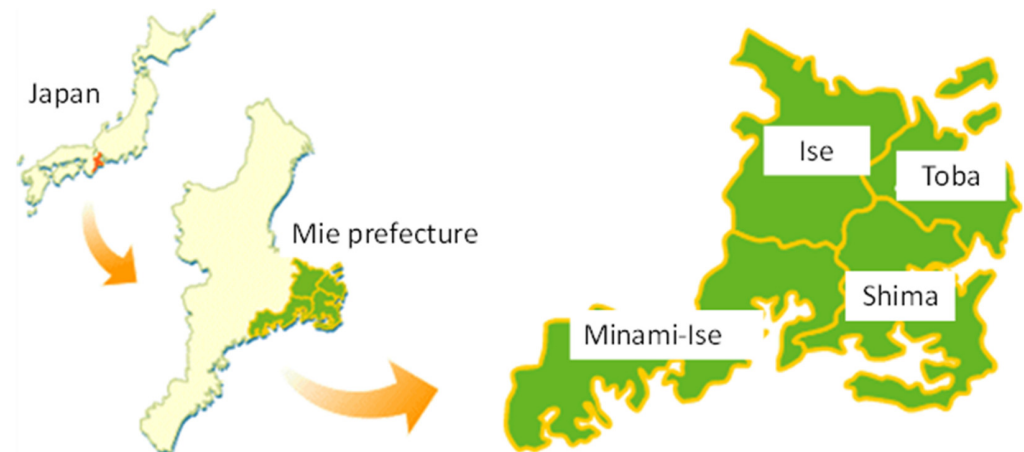


Figure 1. A map of Ise-Shima National Park: Shima city Tourism Association (<https://www.kanko-shima.com/en/access.html> (accessed on 27 November 2021)).

Figure 1 is a map of the coastal area of Ise-Shima National Park, which is the target for this study. The Ise-Shima region is a fishing village area in a scenic coastal area in central Japan, where cultured pearls and tourism are the main industries. Japan's invention of cultured pearls using Akoya oysters has led to a dramatic expansion of cultured pearls, but it has not become a field of study that attracts the attention of social science researchers. Historical development was also discussed of the cultured pearl industry in Japan as a whole in a coastal context, suggesting that research should be conducted to ensure the sustainability of local industries unique to the region [9]. However, this series of studies ends with a description of the damage done to the industry by the oil shocks of the early 1970s, the aftermath of which has not yet been studied. That means it is a challenge for social science researchers to continue further holistic research, especially in the period of economic recession and the recent COVID-pandemic.

2.2. Pearls as the Value for the Sustainable Local Economy

Consumption of luxury brands can achieve three major goals: creating an identity, encouraging sustainability, and presenting social and economic status [10]. For some people the privilege of luxury products is their own way to keep the uniqueness and advantages from the rest of the people in society [11]. Authors have also commented that the ownership of luxury goods does not equate to one's social position [12].

However, there have not been many discussions on pearls in the context of luxury goods. Researchers have tried to define luxury branding by concentrating on three views: the psychological, economic, and marketing perspectives [12]. As a result of fashion and cultural changes over time, the concept of luxury values is still unstable [13]. It was suggested that investigating the motivation for consumers to purchase luxury goods is the first step in understanding their behavior; however, this area has not been studied in the context of cultured pearls [14,15].

2.3. Tourist Attraction Stimulus: Luxury Value of Pearl Products and Sustainable Development

The term luxury is rare from the consumer's perspective, giving the perception of a high-quality, expensive, and non-basic product or service. It is a symbol of high quality,

reputation, and a high level of living and provides emotional value [11]. Pearls are jewellery as a luxury item realized through technology invented by Mikimoto [9].

However, the recent trend toward the “democratization” of luxury goods [16,17] offers great opportunities for luxury brand businesses but also provides challenges in terms of the sustainability of their value and the difficulty of differentiation [18]. Although the growing number of middle-class and upper middle-class consumers is already manifested in increased wealth and more demanding preferences, few discussions have focused on the value of pearls as a luxury item in the process of discussing community development in the coastal Ise-Shima region.

In previous studies on the revitalization and sustainable development of other pearl-producing regions in the global market, the author in [19] barely mentions the value of pearls as icons that attract tourists in their discussions, but few studies have focused on other agricultural products and discussed their inbound-promoting effects.

On the other hand, in production areas such as Ise-Shima, local authorities and tourism bureaus have recognized the luxury value of cultured pearls as an inbound attraction and have organized tourism events in the production areas with some success [15]. However, these activities are undertaken in isolation and lack any overall strategic dynamism. The producers also have no way of knowing what value is added to the pearls (the product of their labour) as raw materials and subsequently in the supply chain, nor how they are selected and purchased by end consumers in the global luxury goods market through the intervention of designers and market players [15]. There is no way of knowing the preferences and purchases of end consumers in the global luxury goods market. The cultured pearl industry, isolated from the final consumption areas, is a declining sector of the agriculture, forestry, and fisheries industry that is, sadly, in the doldrums [4].

2.4. Conceptualization of Synergies among Stakeholders: Necessity of Collaboration

As discussed, the cultured pearl industries have been embedded in local tourism mainly in the Ise-Shima region and have been successful so far in attracting visitors not only from inland Japan but also from overseas. However, this aspect of the connection between the local cultured pearl industry and tourism has not been investigated; this has resulted in a lack of active strategies to sustain local tourism that are based on the relevant stakeholders [20].

When discussing collaboration theory and community tourism planning frameworks, it is important to include the important perspective of community involvement. [21]. There is also a precedent for discussing the relationship between tourism and economic development based on quantitative evidence, using the case of the Mexican coastline [22].

Tourism is a fast-growing services sector in developing countries [22], but this notion can also be applicable to developed countries such as Japan; the long-term economic outcome based on local businesses has a positive impact both locally and more widely. It was revealed the relationships between tourism and local economy growth, focusing on dual directions: tourism led growth and economy driven tourism growth [23]. In doing so, they emphasized the practical implications of how to support both the local economy and tourism.

The impact of cultural tourism as a strategic pathway in the global economy [23]; they examined the successful management practices in creating culture-based tourism destinations and applied those practices to the regions that require economic support. Their proposed framework is unique in focusing on three dimensions: ‘eco-museum’, ‘cultural routes’, and ‘cultural district’ ideals, which can be also applicable to the aim of this study.

Based on the literature review, key takeaways from this chapter are summarized in a semi-structured questionnaire to be circulated during the focus group discussions (FGDs). These reveal relevant stakeholders’ perceptions towards the possible grand design for local business-based tourism, which contributes to building a sustainable local economy (Table 1).

Table 1. Key takeaways from literature review.

Key Topics and Main Stakeholders	Sub Themes for Research Questions
1. Respect and maintenance of the history and tradition of the cultured pearl industry	Can local cultured pearl business be a basis for inbound tourism? What are the stakeholders' future perspectives for cultured pearl? What are the main perceived values of cultured pearls in coastal area?
2. Impact of the value of cultured pearls on the local economy	Can the values of luxurious pearls be driving power to sustain the business? Are the pearls valuable for the community (community bonding and cohesion as a local asset)? Can the cohesion between cultured pearls and local tourism be key trigger for business sustainability?
3. Pearls and tourism (Tourism-related organizations)	Is there a potential relationship between cultured pearls and inbound tourism? Do the stakeholders perceive dynamism of cultured pearl businesses and inbound tourism?
4. Future perspectives and required interventions (businesses, regional authorities, and tourism-related organizations)	Can the cultured pearl industry be effective in sustaining the local community? What elements are essential for sustaining the coastal region based on the cultured pearl businesses? Who are the key actors in sustaining both local cultured pearl businesses and the local tourism based on the cultured pearl industry?

3. Methodology

3.1. Research Approach

The study used an FGD approach to collect primary data and text-mine participants' thoughts and feelings. Stakeholders from different backgrounds shared their knowledge and opinions, and the interactions led to new opinions being formed in each group and to the spreading of awareness among the participants.

The qualitative research approach adopted by this study attempts to examine and explain the fundamental significance that individuals and groups ascribe to social phenomena [24]. Qualitative approaches are often preferred when analyzing human judgments and behaviors, as this study aims to do [25], i.e., to analyze human opinions, attitudes, views, beliefs, and preferences. In the exploratory examination of the RQs in this study, it is important to supplement and analyze the opinions, perceptions, attitudes, and motivations of the people involved in a dense context. In addition, the FGD method was employed in this study in order to obtain activated opinions during the interviews due to the interaction of multiple stakeholders [26].

3.2. Participants and Data Collection

The primary focus was on exploration of the perceptions and evaluations of the relevant stakeholders, as shown in Table 1. A total number of 18 participants for three focus groups was deemed enough for each group of the study, in accordance with [27], who proposed that smaller data samples are suitable for a study that applies an inductive method. In order to achieve the research objectives, it is necessary to select participants who are close to and experienced and knowledgeable about these topics. Therefore, this study employs a purposive approach to sample collection. Purposive sampling is very useful in qualitative research and is one of the most cost- and time-effective sampling techniques [28]. In order to efficiently collect primary data for this study, the authors recruited volunteers to help provide information through contacts at organizations, tourism associations, and local governments related to the pearl industry in the Ise-Shima region. The participants are categorized according to the stakeholder groups (Table 1).

Primary data was collected from three FGDs consisting of six participants each, in parallel sessions that were facilitated by the members of the authors' research group. Following the suggestions from [28], FGDs are carried out in a familiar setting to enhance their open and honest discussions after the 'ice-breaking time' at the start. A total time slot of 70 min was proposed for each session, consisting of 10 min of opening/closing and 60 min of group discussion (broken down into 10–15 min of discussion for each key topic).

This practice was following the suggestion by [29]; 45–90 min of discussion was planned for the FGDs in terms of fully capturing a studies domain. FGDs were conducted December 2021 to January 2022. Table 2 is the participant list of the three FGDs.

Table 2. Profile of the interviewees.

FG1	
1: Tourist (Tokyo)	Male, 58 years old
2: Pearl producer	Male, 48 years old
3: Tourist office	Male, 36 years old
4: Local business authority	Male, 46 years old
5: Local council	Female, 39 years old
6: Local resident	Female, 35 years old
FG2	
7: Tourist (Tokyo)	Female, 61 years old
8: Pearl producer	Male, 62 years old
9: Tourist agency	Female, 45 years old
10: Local adviser (university researcher)	Female, 37 years old
11: Local council	Male, 43 years old
12: Local resident	Male, 48 years old
FG3	
13: Tourist (Yokohama)	Female, 29 years old
14: Pearl producer	Male, 56 years old
15: Tour company	Male, 41 years old
16: Local council	Female, 36 years old
17: Local resident	Male, 49 years old
18: Local resident	Female, 42 years old

3.3. Data Analysis

All three FGD sessions were recorded and transcribed into text format. Repeated themes and nodes containing key words were identified and subjected to thematic analysis [28]. To be more precise and to highlight hidden values and insights embedded in the participants' statements, text mining software (NVivo12) and an open-source tool (User-Local 2022) were utilized to visualize the co-occurrence of specific word relationships, node hierarchies, and other factors and also to help our understanding.

4. Findings

4.1. Extraction and Comparison of Key Themes in the Textual Data

First, the text data obtained from each FGD was classified into four groups of main stakeholders based on their relevant position and function: (i) local residents, (ii) the pearl industry and organizations, (iii) tourists, and (iv) the public sector. Two software tools were used to identify and decipher differences in perspective. From the analysis, the four groups commonly recognize that cultured pearls are an individual community feature and create significant value in the Ise-Shima region, but (ii) the pearl industry and organizations and (iv) the public sector participants are keenly aware that further development of regional revitalization and inbound tourism with this pearl industry at its core should be developed in a more systematic manner. To this end, many have expressed a strong desire for further support and intervention. In contrast, local residents believe that cultured pearls are a technological innovation originating in Japan, and that pearls and the related culture should be more widely promoted and advertised to the world. The tourists highly value programs that allow them to learn about and experience the process of pearl cultivation. They are also interested in the beauty of pearls as jewellery and the production process using traditional methods in Japanese culture, and it can be read that they regard the Ise-Shima area as a museum of learning.

Next, the trends in statements obtained from the FGDs were visualized using the nodes obtained from mining, after classifying them into the four groups described above (Figure 2).

This comparative study revealed differences in the phases of awareness and expectations of the stakeholders who participated in the FGDs. First, local residents are fully aware that the pearl industry is a value for their community, but they are not that interested in inbound tourism with the pearl industry at its core. On the other hand, tourists visiting Ise-Shima tend to develop a greater interest in the cultured pearl industry, such as the Mikimoto Museum and the ama (women divers) demonstrations, after their visit and are curious about the inside of the hands-on pearl industry, which in itself suggests the potential for inbound tourism with cultured pearls at its core. In addition, local residents and tourists expressed a desire to fully promote the cultural value of cultured Akoya pearls, which were produced using technology invented for the first time in Japan, and to show the world an outstanding aspect of Japanese culture. Many also said that it is important to first promote the value of pearls to the Japanese people before attracting tourists from abroad and that it is important to disseminate information and foster sympathy and interest within Japan.

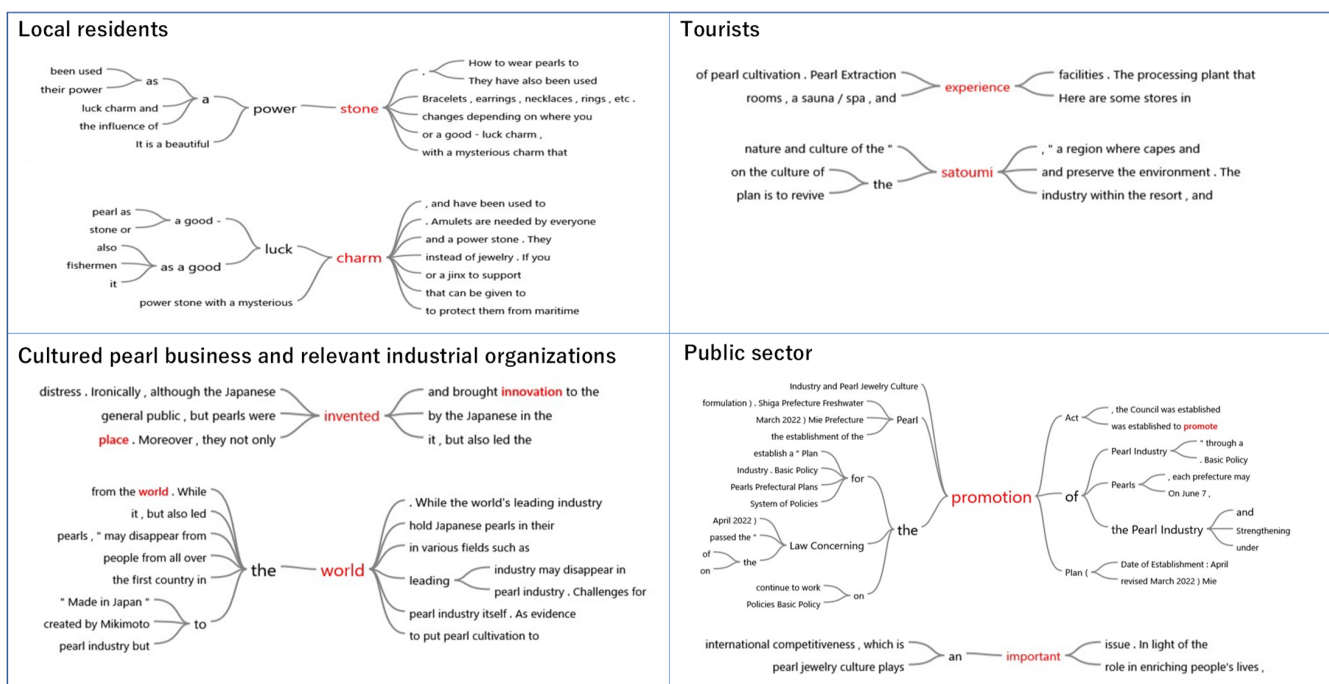


Figure 2. Word trees of four stakeholders.

While the pearl industry is aware of the value of pearls as a luxury item, they have a vague interest in how the pearls they produce are valued in the global luxury jewellery market, but this is outweighed by their awareness of the problems of business succession and the deterioration of the quality of Akoya oysters due to sea water pollution, and the main concern of the public sector is to achieve innovation and sustainability in the pearl industry by strengthening support through collaboration among industry, government, and academia, mobilizing different opinions and ideas from open networks that are not limited to local networks, and co-creating new values.

4.2. Detailed Comments from Stakeholders

The following is a close examination of specific statements for each of the sub-themes developed from the literature review in order to further elaborate on the participants' attitudes.

4.2.1. Respect and Maintenance of the History and Tradition of the Cultured Pearl Industry

As discussed, we found that two different main interest groups were revealed from the FGDs: local residents, cultured pearl businesses and organizations, tourists, and the public sector.

Participants 1, 6, and 11 (tourists) stated that the reason for them to choose the destination was mainly because of the cultured pearl industry, especially in the Ise-Shima region, which is well known as the hub of the Sir Mikimoto invention of the cultured pearl technology. In line with the tourists' perspectives, tour agents stated that they perceived the cultured pearl business tourists not only from inland but also from overseas:

Participant 3: 'It is crystal clear we cannot run the business without the pearls'.

Participant 7: 'Visiting Mikimoto island and experiencing a tour, including a boat trip to the production site, is the most popular item in our optional tours'.

On the other hand, those on the business side, such as producers and entrepreneurs, mentioned the issues that they perceived in the business process:

Participant 4: 'The pearl industry is unique, as nobody fully understands the whole process from farming, materializing, wholesaling, designing, product making and retailing shop'.

Participant 8: 'Each phase has its specialist, and we seldom communicate closely; we are not keen on understanding what is going on in the real jewellery market'.

The business authorities and the public sector as a coordinator and facilitator have noticed the issues, and some of them stated their attempts to nurture 'learning perspectives' among the producers to enhance their marketing skills to respond to demand. As noted, some more information sharing is essential to enhance the collaboration among the stakeholders, and to do so, the public sector and the relevant business organizations should play a key role as a facilitator to support their dynamism within the cultured pearl business.

4.2.2. Cultured Pearls as Community-Centered Value

All of the participants mentioned their appreciation of pearls as valuable jewellery, especially tour agencies and local council officials who emphasized this aspect as a key factor to sustain the local businesses and economy:

Participant 5: 'Without pearls, our villages cannot survive'.

Participant 11: 'Pearls are our value. It is our responsibility to look after satoumi as our hometown'.

The satoumi is an important sea area that has long supported culture and exchange, including fisheries and distribution. It is an area where high biological productivity and biodiversity are required, and it is also an area located halfway between the realm of humans and nature [29]. The satoumi concept can be a guidepost for further research and discussion of how to contribute to the coastal area development and support small businesses of cultured pearl industry.

The local council is particularly interested in using the data mining results as official statistics in their materials for developing a policy framework to support the regional economy. The pearls' value to the community was also mentioned by residents in the area:

Participant 12: 'The pearls are a common value for us to share. We are proud of our Akoya pearls'.

Participant 12, 17 and 18: '... pupils learn the history of cultured pearl technology at primary schools. The pearls are our values and connect the local people'.

In line with these statements, tourist business representatives also stated as follows:

Participant 10 and 16: 'Dynamism of the interaction between universities, businesses and local councils have been supporting the cultured pearl businesses in the area'.

These statements are evidence for the productive outcome based on the interaction of the stakeholders of local businesses, which should be the key trigger for business sustainability [22,24].

4.2.3. Pearls and Tourism: Ecological System in Society

Regarding the third theme, some more statements were noted:

Participant 9: 'How to strengthen the dynamic relations and interactions aiming to support the cultured pearls should be basis for the local economy'.

Participant 10: 'The policy enhancing the relational actors' commitment to the cultured pearls and tourism has been on the top of our policy agenda'.

Participant 4: ‘We need to support the future of both the cultured pearl industry and tourism, which are supporting the local economy as the collaborative infrastructure’.

The local stakeholders clearly perceived the impact of the cultured pearl business as a key element to support local tourism [23]. The local stakeholders have acknowledged the pathway of local asset-based community development, and they all stated positively the applicability of the pearl industry as the core value of the community network [30].

Over the years, the role of tourism in economic growth has become increasingly prominent [31]. Although tourism’s economic performance is an important criterion for measuring the economic development of a region, there have been few quantitative studies on tourism economic performance within a single region. In addition, there is almost no body of research on the impact of the social motivations and psychological factors of the people involved in the development of the tourism industry. Therefore, it is timely to examine the sustainable development of the region through methods and suggestions on how to optimize the promotion of tourism strategies, including inbound tourism.

Another important theme that participants remarked on was the balance between tourism and the economy, i.e., the importance of an ecological approach to sustainable industrial support. It has been pointed out the difficulties of mismatching and coupling [32]. As a coastal based aquaculture industry, the pearl business is susceptible to climate change and water pollution and is also a field that should focus on the ethical elements of the production process; it is a research target that should consider the synergistic development of a tourism–economy–ecology system. Research from this perspective is in its infancy, and knowledge on pearls and sustainable tourism development is accumulating in various parts of the world market [33]. Tourism in the marine environment is a topic that should be of interest in the future, as ecological business strategy research is required in today’s world [34].

4.2.4. Future Perspectives: How to Sustain Local Economy with Small Businesses

The data obtained from the three FGDs paint a blueprint for the future prospects of regional tourism based on cultured pearls. The situation surrounding cultured pearls is complex [35]. Addressing complex issues such as environmental impact in the pearl farming process also requires enhanced knowledge mobilization and innovation [36,37]. Indeed, it also throws up themes that are closely linked to the pressing issues of climate change, marine ecosystems, and sustainable urban development proposed by the UN’s Sustainable Development Goals (SDGs).

In this regard, a variety of experts with knowledge and experience were invited to comment in the context of innovation:

Participant 9: ‘Linear problem solving is difficult today, problems are complex and related... It is inevitable to build teams with different experiences in order to plan how to sustain the businesses’.

Some producers also recognized the importance of ‘innovation’ based on collaborative teams:

Participant 2: ‘The value of pearls cannot be maintained without innovation. Innovation can only be brought about by a functioning collaborative team’.

Another participant emphasized the benefits of collaboration among local stakeholders, including universities, companies, and pearl producers/wholesalers:

Participant 10: ‘The dispatch of young university researchers was a good stimulus for coastal businesses, bringing new ideas and contributing to business performance by introducing new perspectives into business processes and organizational culture’.

How can we effectively share information among stakeholders, recognize challenges through selection and focus, and seek solutions in order to sustain the cultured pearl business based on information sharing and clear vision and goals? An innovative mindset, collaboration among stakeholders, and design-oriented efforts are essential to sustain the business and promote economic and social development for all involved. The technological impact in knowledge sharing sheds light on this topic and should be further discussed [38]. Specific solutions with practical schemes are needed, which is an urgent issue for cultured

pearl businesses. Participants mentioned the important value of collaboration and co-creation among relevant actors to create win-win relationships that support local businesses and economies [39].

The final key takeaway from the FGDs was the proposed agenda: quality control and technology transfer; establishing learning spaces for producers, the tourism industry, and the public sector; sharing ideas and information to build a sustainable pearl industry; and preparing innovative platforms that address market needs and environmental requirements.

Finally, some participants jointly emphasized the impact of community values and stakeholders' perceptions of local communities, stating that community-based tourism cannot develop without 'attachment to place', which is in line with the argument presented by socio-economists [40].

4.3. Discussion

The analysis revealed that the cultural seascape of pearls is well recognized by stakeholders, and the potential and prospects for economic and social development of coastal areas and inbound tourism with the cultured pearl industry at its core are well recognized by stakeholders. In particular, the public sector, industry associations, and others have high expectations for the underlying strength of the cultured pearl industry as a regional asset that can drive the development of coastal areas through more comprehensive interventions.

They also expressed a great desire to be involved in preserving and passing on the knowledge of cultured pearls and the traditional techniques of Mikimoto transmission, highlighting that the pearl industry serves as an effective catalyst in bringing people together in coastal communities. The value of cultured pearls, which can revitalize businesses through tourism and contribute to the community as a whole, requires innovative and collaborative co-creation, combining knowledge of the production process and tradition with modernity.

This satoumi concept was not at the center of the research theme at the time of the literature review in the preliminary stages of the study, but surprisingly, the stakeholders who participated in the FGDs were already aware of the value of satoumi as common in the coastal area, amplifying value through nature-human interactions. They were fully aware of the value of the cultured pearl industry as a nucleus for the co-creation of value through nature-human interactions.

Satoumi has long been an important sea area that has supported culture and exchange, including fisheries and distribution, and is a place where people and nature coexist in biodiversity and a desirable environment [41,42]. A healthy satoumi can maintain proper material circulation functions and a balance between rich and diverse ecosystems and business when land and coastal waters are managed in an integrated manner by human hands. The satoumi concept is expected to serve as a major guideline for coastal development around the world.

Based on the survey results, the responses to the research questions developed in this study are as follows.

- (1) Co-creation of value through collaboration among relevant stakeholders in coastal areas in an open relationship could be one catalyst for maintaining the sustainability of cultured pearl operations in coastal areas. In particular, given the fact that tourists are aware of the value of the coastal satoumi, or the broader community that encompasses the cultured pearl site, as an attractive place to visit, and that the host residents are highly sympathetic to and confident in the value of pearls as jewellery, a more refined inbound strategy should be based on this, and it can be expected that there is much room for more refined inbound strategy planning and demand.
- (2) In conjunction with the above responses, while it is important to promote collaboration among stakeholders for the development of the cultured pearl business, local residents and industry participants suggest that the Japanese-developed innovation of cultured pearls, the true round pearl technology, could be more globally appealing as a made-in-Japan technology. In addition, the recent intervention of the public sector, such as

the revision of laws, can be expected to have the effect of accelerating the coordination and collaboration of these parties involved in the pearl industry.

- (3) Based on the responses to RQs 1 and 2 above, cultured pearls can be expected to become an attraction for tourism in the region. However, in order to achieve this, it may be necessary to modernize the aquaculture industry as an industry, solve succession problems, and take the initiative in providing support for promotion by the public sector, as indicated by the keywords of the parties involved extracted in Figure 2, through interventions such as promotional support and other factors in order to achieve a united support policy.

5. Conclusions, Implications, and Limitations

In line with the three research questions, this study used a qualitative approach to listen to the opinions of stakeholders related to cultured pearls in coastal areas and proposed a path and vision for maintaining the sustainability of the industry through future regional collaboration and revitalizing communities through inbound tourism. The report also recommends a roadmap and prospects for maintaining industrial sustainability through future regional collaboration and revitalizing communities through inbound tourism. It then presented an agenda for further analysis and research, emphasizing, among other things, the importance of interventions for this purpose.

The analysis revealed that stakeholders recognize that the development of the industry through the innovative development of traditional cultured pearl technology can serve as a catalyst to bring together community values, residents, and tourists and that further comprehensive and systematic interventions should enhance the resilience of the cultured pearl industry. The study also found a strong recognition of the need to enhance the resilience of the cultured pearl industry through further comprehensive and systematic interventions.

The following is a summary of the theoretical and practical contributions as well as limitations and future research directions.

5.1. Theoretical Contributions

Japan's cultured pearl industry faces stiff competition in the global jewellery market. Nevertheless, as the backbone of local tourism, the cultured pearl business is expected by diverse stakeholders and valued as a core value for local communities. This study identifies the potential of cultured pearl tourism as an important element of economic vitality to sustain the value of local communities and residents and proposes an agenda for future discussion and consideration. This is the first contribution of this study.

The second contribution was to discuss the importance and direction of collaboration with tourism stakeholders, including public sector interventions, while suggesting the possibility of applying the knowledge management framework to tourism research in order to develop the traditional local industry of pearl farming [43] based on participants' comments in the FGD.

This study was conducted in the style of a stakeholder opinion survey, mining the opinions of the stakeholders to make suggestions. This study is an aggregation of the opinions of FGD participants, and the task of reconciling these opinions with measurable statistical data is left to the next stage of conducting this study. The greatest contribution of this study, therefore, is that it has proposed a pathway to raise awareness of the value of cultured pearls and improve the sustainability of the cultured pearl industry through collaboration among stakeholders, especially in coastal areas, with the help of public sector support and other resources.

5.2. Practical Contributions

As a result of this study, it is expected that the collaboration among residents, industry, tourists, and the public sector, with the coastal cultured pearl business at its core, will enable further innovative improvements in cultured pearl technology originating in Japan and maintain and improve the sustainability of the business with an eye on the global

market. Based on the output of the findings, using a qualitative approach to analysis, this study proposed an agenda for further creation of economic value mediated by gemstone pearls in coastal areas such as satoumi, based on the phase of stakeholders' awareness through text mining methods. The two economic activities proposed by this study, coastal area tourism with the cultured pearl industry at its core, are closely linked as stakeholders in pearl tourism and present a path and important issues to contribute to the creation of sustainable local communities by incorporating new values and technologies from outside to trigger local economic revitalization.

5.3. Limitations and Further Research Opportunity

This research is the first study exploring and fusing the small coastal cultured pearl businesses, local tourism, and community sustainability based on a Japanese case study. This article has attempted to bring an innovative framework that combines a historical legacy of cultured pearl production in Ise-Shima and its potential contact points with tourism. However, we are also aware that there are areas for further improvement in this study.

First, methodology is focused only on stakeholders' opinions, which should be discussed in relation with quantitative data which would support it. To validate the results of the study should be a key task for the authors as the next step. Second, a more refined model and scale should be examined using quantitative methods to confirm the validity and applicability of the model proposed in this study. In addition, the contribution of the cultured pearl industry in Japan in passing on the aesthetic sense and value of pearls as gemstones and managing biologically and culturally diverse marine areas should be discussed and presented, as well as future prospects.

In this study, the opinions of relevant stakeholders were collected using FGDs, and as noted above, in the future, a mixed method approach combined with a quantitative method should be used to support the project from an interdisciplinary perspective and provide guidelines that contribute to the development of inbound tourism strategies.

The discussion in this study focused on maintaining and ensuring the economic prosperity of stakeholders in the coastal zone and the sustainability associated with that prosperity. However, the theme of sustainability is essentially a grand question that should be addressed from the perspective of how global citizens should contribute and solve problems to maintain the sustainability of the Earth as a planet. Therefore, the authors would like to leave this note by stating that we will continue to develop further research with this awareness of the issues that demonstrate the responsibility of global citizens to achieve sustainability.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data are not publicly available due to this data being obtained under conditions that are not intended to be published.

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References

- Oe, H.; Yamaoka, Y. Entrepreneurship, Leadership and Communication: A Case Study of Cultured Pearl Industry in Japan. In Proceedings of the International Conference on Information and Social Science (ISS) & International Symposium on Marketing, Logistics, and Business (MLB), Nagoya, Japan, 24–26 September 2013.
- Fisheries Agency. *Production Status of Pearl Farming, Gyosei-no Mado*; Fisheries Agency: Tokyo, Japan, 2017; p. 145.
- Shirasaka, A.; Mukohyama, A.; Senda, A.; Saitoh, K.; Yamaguchi, M.; Aoyama, S. Records of Industry-Academia-Government Collaboration: Pearls Collection in Shima-city as an Example. *Bull. Osaka Yuhigaoka Gakuen Jr. Coll.* **2019**, *62*, 61–67.
- Weeks, M.; Oe, H.; Yamaoka, Y.; Hirata, T. Young Businesspeople's Entrepreneurial Perceptions and Intentions to Contribute to Local Communities: A Case Study of the Cultured Pearl Industry in Mie, Japan. *Econ. J. Sci. J. Account. Manag. Financ.* **2021**, *1*, 96–109. [\[CrossRef\]](#)
- Mayuzumi, Y.; Kaizu, Y. Study for Relationship between Tourism and Fishery-Case of Toba City, Mie Prefecture. *J. Fac. Int. Stud. Bunkyo Univ.* **2019**, *30*, 99–113.
- Henderson, J.C. Destination development: Trends in Japan's inbound tourism. *Int. J. Tour. Res.* **2017**, *19*, 89–98. [\[CrossRef\]](#)
- Mou, N.; Yuan, R.; Yang, T.; Zhang, H.; Tang, J.J.; Makkonen, T. Exploring spatio-temporal changes of city inbound tourism flow: The case of Shanghai, China. *Tour. Manag.* **2020**, *76*, 103955. [\[CrossRef\]](#)
- Oguri, H. The changing pattern of pearl culture in Japan (excluding mie prefecture). *Geogr. Rev. Jpn.* **1967**, *40*, 358–368. [\[CrossRef\]](#)
- Nagai, K. A history of the cultured pearl industry. *Zool. Sci.* **2013**, *30*, 783–793. [\[CrossRef\]](#) [\[PubMed\]](#)
- Wattanasuwan, K. The self and symbolic consumption. *J. Am. Acad. Bus.* **2005**, *6*, 179–184.
- Shukla, P.; Rosendo-Rios, V.; Khalifa, D. Is luxury democratization impactful? Its moderating effect between value perceptions and consumer purchase intentions. *J. Bus. Res.* **2022**, *139*, 782–793. [\[CrossRef\]](#)
- Schutte, H.; Ciarlante, D. *Consumer Behaviour in Asia*; University Press: New York, NY, USA, 1998.
- Dubois, B.; Duquesne, P. The market for luxury goods: Income versus culture. *Eur. J. Mark.* **1993**, *27*, 35–44. [\[CrossRef\]](#)
- Ahmed, A.U.; Johnson, J.P.; Ling, C.P.; Fang, T.W.; Hui, A.K. Country-of-origin and brand effects on consumers' evaluation of cruise lines. *Int. Mark. Rev.* **2002**, *19*, 279–302. [\[CrossRef\]](#)
- Oe, H. *A New Marketing Strategy towards Sustainable Cultured Pearls Industry: From the History of the Cultured Pearl and the Output from Pearls of Wisdom*; No.306/WP BA; Yokohama National University: Yokohama, Japan, 2011.
- Ernst & Young. China: The New Lap of Luxury. 2005. Available online: [http://www.ey.com/global/download.nsf/China_E/050914_RCP_PP_E/\\$file/Presentation_English.pdf](http://www.ey.com/global/download.nsf/China_E/050914_RCP_PP_E/$file/Presentation_English.pdf) (accessed on 22 September 2020).
- Okonkwo, U. *Luxury Fashion Branding: Trends, Tactics, Techniques*; Palgrave Macmillan: Basingstoke, UK, 2007.
- Vickers, J.; Renand, F. The marketing of luxury goods: An exploratory study three conceptual dimensions. *Mark. Rev.* **2003**, *3*, 459–478. [\[CrossRef\]](#)
- Naseeb, H.T.; Lee, J.; Choi, H. Elevating Cultural Preservation Projects into Urban Regeneration: A Case Study of Bahrain's Pearling Trail. *Sustainability* **2021**, *13*, 6629. [\[CrossRef\]](#)
- Lew, A.A.; Ng, P.T.; Ni, C.C.; Wu, T.C. Community sustainability and resilience: Similarities, differences and indicators. *Tour. Geogr.* **2016**, *18*, 18–27. [\[CrossRef\]](#)
- Jamal, T.B.; Getz, D. Collaboration theory and community tourism planning. *Ann. Tour. Res.* **1995**, *22*, 186–204. [\[CrossRef\]](#)
- Faber, B.; Gaubert, C. Tourism and economic development: Evidence from Mexico's coastline. *Am. Econ. Rev.* **2019**, *109*, 2245–2293. [\[CrossRef\]](#)
- Lin, V.S.; Yang, Y.; Li, G. Where can tourism-led growth and economy-driven tourism growth occur? *J. Travel Res.* **2019**, *58*, 760–773. [\[CrossRef\]](#)
- Creswell, J.W. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, 3rd ed.; Sage Publications: Thousand Oaks, CA, USA, 2009.
- Lehnert, K.; Craft, J.; Singh, N.; Park, Y.H. The human experience of ethics: A review of a decade of qualitative ethical decision-making research. *Bus. Ethics Eur. Rev.* **2016**, *25*, 498–537. [\[CrossRef\]](#)
- Fidel, R. Qualitative methods in information retrieval research. *Libr. Inf. Sci. Res.* **1993**, *15*, 219–247.
- Braun, V.; Clarke, V. Using thematic analysis in psychology. *Qual. Res. Psychol.* **2006**, *3*, 77–101. [\[CrossRef\]](#)
- Van Haute, E. Sampling Techniques. In *Research Methods in the Social Sciences: An AZ of Key Concepts*; Oxford University Press: Oxford, UK, 2021; p. 247.
- Berque, J.; Matsuda, O. Coastal biodiversity management in Japanese satoumi. *Mar. Policy* **2013**, *39*, 191–200. [\[CrossRef\]](#)
- Wu, M.Y.; Pearce, P.L. Asset-based community development as applied to tourism in Tibet. *Tour. Geogr.* **2014**, *16*, 438–456. [\[CrossRef\]](#)
- Huang, Q.; Zhang, W. Economic Performance Evaluation of Tourism in Pearl River Delta Based on AHP Model. *Math. Probl. Eng.* **2022**, *2022*, 1328291. [\[CrossRef\]](#)
- Tang, B.; Luo, H. Mismatch and Coupling: A Study on the Synergistic Development of Tourism-Economy-Ecology Systems in the Pearl River Delta. *Sustainability* **2022**, *14*, 8518. [\[CrossRef\]](#)
- Radwan, W.R.M.I. Beni Suef-Pearl of Upper Egypt-and its Role in Sustainable Tourism Development. *J. Assoc. Arab. Univ. Tour. Hosp.* **2021**, *21*, 130–153. [\[CrossRef\]](#)
- Militz, T.A.; Kershler, D.A.; Southgate, P.C. Informing Artisanal Pearl and Pearl-Shell Handicraft Production for the Cruise Tourism Market Through Analysis of Intended Purchase Behavior. *Tour. Mar. Environ.* **2021**, *16*, 45–58. [\[CrossRef\]](#)

35. Shigematsu, S. Research Note on Pearling and Japanese Contribution to Local Society in early 20th Century Australia. *The Otemon. J. Aust. Stud.* **2007**, *33*, 91–100.
36. Adzighli, L.; Hao, R.; Jiao, Y.; Deng, Y.; Du, X.; Wang, Q.; Huang, R. Immune response of pearl oysters to stress and diseases. *Rev. Aquac.* **2019**, *12*, 513–523. [[CrossRef](#)]
37. Chin, A.; Cameron, D.; Saunders, R. Fisheries of the Great Barrier Reef. In *The Great Barrier Reef: Biology, environment and management*; CSIRO Publishing: Melbourne, VIC, Australia, 2019; pp. 117–130.
38. Yiu, M.; Law, R. Technological impacts on knowledge sharing: A case study of three travel agencies in Hong Kong. *Tour. Recreat. Res.* **2016**, *41*, 2–15. [[CrossRef](#)]
39. Walters, G.; Ruhanen, L. A market positioning approach to university–industry collaboration in tourism. *Tour. Recreat. Res.* **2019**, *44*, 103–115. [[CrossRef](#)]
40. Kaján, E. Community perceptions to place attachment and tourism development in Finnish Lapland. *Tour. Geogr.* **2014**, *16*, 490–511. [[CrossRef](#)]
41. Yanagi, T. *Japanese Commons in the Coastal Seas: How the Satoumi Concept Harmonizes Human Activity in Coastal Seas with High Productivity and Diversity*; Springer Science & Business Media: Berlin/Heidelberg, Germany, 2012.
42. Mizuta, D.D.; Vlachopoulou, E.I. Satoumi concept illustrated by sustainable bottom-up initiatives of Japanese Fisheries Cooperative Associations. *Mar. Policy* **2017**, *78*, 143–149. [[CrossRef](#)]
43. Ruhanen, L.; Cooper, C. Applying a knowledge management framework to tourism research. *Tour. Recreat. Res.* **2004**, *29*, 83–87. [[CrossRef](#)]