### **Original Article**

# An application of regional tourism promotion based on engendering a sense of emotional attachment

Hiroki Miyashita (Graduate School of Engineering and Science, Shibaura Institute of Technology, mf22122@shibaura-it.ac.jp, Japan) Sachika Okubo (Graduate School of Engineering and Science, Shibaura Institute of Technology, mf22021@shibaura-it.ac.jp, Japan) Rina Takagi (Graduate School of Engineering and Science, Shibaura Institute of Technology, mf22077@shibaura-it.ac.jp, Japan) Toshiaki Saisu (Former Nasushiobara Tourist Board, t.saisu@nasuinfo.or.jp, Japan)

Hiroshi Hasegawa (Graduate School of Engineering and Science, Shibaura Institute of Technology, h-hase@shibaura-it.ac.jp, Japan) Kayoko H. Murakami (Graduate School of Engineering and Science, Shibaura Institute of Technology, kayoko@shibaura-it.ac.jp, Japan)

#### Abstract

In response to the increasing trend of young people disengaging from the travel scene, there is a growing focus on regional development initiatives. This is particularly evident in the decline of Onsen tourist attractions and accommodations. To increase visitor numbers, it's crucial not only to attract new customers but also to cultivate repeat clientele. Central to this is the concept of 'Emotional Attachment,' which directly influences customers' intention of repeat visitation and recommendations to others beyond mere satisfaction. Previous research identified five factors contributing to Emotional Attachment, defining it as the positive emotion and desire to relive experiences. This study emphasizes the symbolic and relationship-building aspects of Emotional Attachment, proposing strategies to attract new repeat customers. Drawing on the AISCEAS model of tourist behavior, a city tour featuring holographic displays of 'Onsen Musume' was introduced in Shiobara Onsen, followed by an experiential event. Since all the participants were repeaters, subsequent trials in Nasu Town involved viewing explanatory videos before sightseeing and the results of questionnaires showed a higher likelihood of repeat visits. This approach effectively combines symbolic and relationship-building elements, offering a promising method for fostering Emotional Attachment and increasing visitor retention.

### Keywords

regional tourism, emotional attachment, repeaters, behaviour model, relationship-building

### 1. Introduction

In recent years, as the problem of young people leaving the travelling world becomes more and more pronounced, attention is being paid to regional development (regeneration). The number of Onsen tourist attractions is currently on the decline, with the number of Onsen accommodation facilities having fallen from more than 15,000 in the 2000s to around 13,000 in recent years [Japan Onsens Research Institute, 2024] (Figure 1).

In order to increase the number of visitors to a tourist desti-

nation, it is important not only to increase the number of new customers, but also to generate repeat customers (regular customers) from new customers. From a marketing perspective, the acquisition of new customers costs a lot of money, while the cost of maintaining existing customers is considered to be less expensive than the acquisition of new customers [Sato et al., 2017]. Therefore, companies are shifting from market share expansion strategies that focus on acquiring new customers, to focusing on building deep relationships of trust with existing customers and maintaining ongoing business relationships with them. In order to retain existing customers, it is considered that the aim is to respond to customer needs in detail and to improve customer satisfaction. This relationship is further

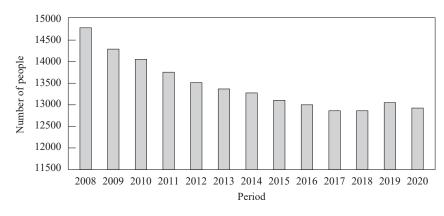


Figure 1: Onsen accommodation transition in Japan Source: Japan Onsens Research Institute [2024].

strengthened by the fact that increased customer satisfaction leads to loyalty [Ohara, 2019]. The overall cost-effectiveness of customer acquisition improves if first-time visitors become repeat customers who visit a second or third time. In other words, an increase in the ratio of repeat visitors contributes to an increase in the revenues of the local tourism industry [Okano et al., 2018]. In addition, more than 30 000 people responded to a web-based survey in 2012, of which more than 37 % were repeat customers of the tourist destination [Jaran Research Centre, 2012]. Emotional Attachment is one of the factors necessary to generate repeat customers. Emotional Attachment to a tourist attraction has been confirmed to have a direct influence on the intention to repeat and the intention to recommend to others, not only through satisfaction, and is one of the important factors for a tourist attraction to acquire repeat customers [Okano et al., 2018].

### 2. Previous research

Terauchi et al. [2004] developed a causal model of the development of emotional attachment using structural equation modelling techniques. They identified five factors that contribute to the development of Emotional Attachment. The five factors of Emotional Attachment development factors are summarised below (Table 1).

(1) Figurative factor	Material, color and shape
(2) Functional factor	Ease of use, functions and us- ability
(3) Symbolic factor	Image of price, brand, etc.
(4) Relationship-building factor	New discoveries and experi- ences
(5) Memorial factor	Gifts and mementos

Table 1: Emotional attachment generating factor

Source: Terauchi et al. [2004].

The five factors in the table above are the factors that humans use to generate Emotional Attachment to objects. Terauchi et al. [2004] devised an idea creation support system to support the creation of conceptual design ideas for products that have a low environmental impact, are recyclable and can be used for a long period of time, and which focus on the value transmission phase of time-axis design to create products that generate Emotional Attachment without reducing emotion. The system is designed to support the creation of product ideas that do not decrease in emotion and generate Emotional Attachment. We defined Emotional Attachment as "Emotional Attachment is an emotion that arises when a person has an experience that holds positive expectations (emotion) and wants to have that experience again" through a person's emotional experience, and created a process that incorporates a device that makes it easy to generate ideas so that product ideas can be generated from the sensitivity of Emotional Attachment [Tomizawa, 2016].

### 3. Purpose of research

Terauchi et al. [2004] constructed a causal model for the development of Emotional Attachment by using covariance structure analysis in order to clarify the five factors that contribute to the development of Emotional Attachment. However, the model and design guidelines are for objects such as artefacts. Therefore, this study applies the research of Terauchi et al. [2004] constructed to regional tourism and proposes an Emotional Attachment formation method to increase new repeat customers, which contributes to the increase in revenue of the regional tourism industry, especially to Onsen tourist attractions. Emotional Attachment in this study is defined, as in Tomizawa [2016] constructed as "an emotion that arises when a person has an experience that holds positive expectations (emotion) and wants to have that experience again." In addition, as part of the research process, a model of tourist behaviour that takes into account the Emotional Attachment generation element of this study is created with reference to the consumer model. Proposals will be made based on analysis of the current situation, etc., with reference to this.

### 4. Emotional Attachment in this study

In this study, Terauchi et al. [2004] identified five factors as Emotional Attachment generating factors using structural equation modelling methods. This is an analysis conducted by modelling the relationships between a number of hypothesised variables into the form of linear combinations. It is particularly used to test the validity of hypotheses. However, the Emotional Attachment generating factors of Terauchi et al. [2004].

Therefore, in order to select Emotional Attachment generating factors that should be focused on in tourist destinations with reference to each item and the questionnaire from tourists, each Emotional Attachment generating factor is divided and the weight of each item is investigated. A causal model of Emotional Attachment generating factors and questionnaire

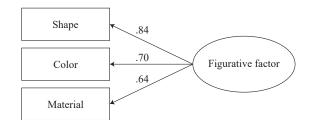


Figure 2: Figurative factor causality model

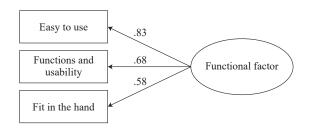


Figure 3: Functional factor causality model

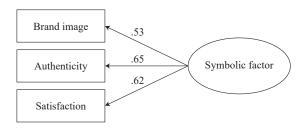


Figure 4: Symbolic factor causality model

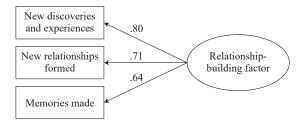


Figure 5: Relationship-building factor causality model

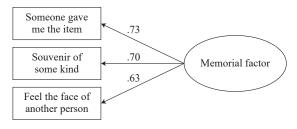


Figure 6: Memorial factor causality model

items is shown below (Figures 2-6).

In the above diagram, the questionnaire items corresponding to each factor are extracted from the three items with the largest causal counts. In the questionnaire that showed the relationship between the presence or absence of repeaters and the attractive resources of tourist attractions, and the presence or absence of repeaters and their reasons for revisiting, "interaction with people," "cleanliness" and "hospitality" were indicated as attractive resources that make repeaters want to repeat, while "reunion with friends and acquaintances" and "pleasure of accompanying people" were favoured as reasons for revisiting. The reasons for revisiting are "reunion with friends and acquaintances" and "pleasure of companions." This shows that human connections are important as a factor in repeat visits. The next most favoured reasons are tourism resources such as "Onsens," "highlands" and "sea." From the above, it can be considered that the Emotional Attachment generating factors that should be paid attention to in this study are the relationship-building factors and the symbolic factors. The relationship-building factors involve 'interaction with people' and 'hospitality' at the attractive resources that make people want to repeat their visit, and are related to the building of new relationships and new discoveries and experiences. It is thought that tourists become attached to a destination through the development of new relationships, new experiences and new experiences there [Sato and Okamoto, 2011]. The symbolic factor is supported next to the human connection, and as the proposed destination in this study is a Onsen tourist resort, it is thought to be mainly related to the 'brand image' of the destination. It is thought that the 'brand image' of the destination is involved when tourists decide on the destination and during sightseeing, and that Emotional Attachment occurs. The analysis by Terauchi et al. [2004] constructed also shows that there is a correlation between symbolic factors and relationship-building factors, and that they have a latent influence. Therefore, these two factors may be suitable for the formation of Emotional Attachment in tourist attractions.

Next, the behavioural model of Onsen tourists in this study is described. The AISCEAS model was used as a reference to create the behavioural model. The process is shown below (Table 2).

Attention	Focus on products
Interest	Raise awareness and interest
Search	Find out specific information
Comparison	Compare similar products
Examination	Consider which one to buy
Action	Actual purchase
Share	Disseminate and share experiences

Source: Suzuki et al. [2010].

These are the AISCEAS models, which are consumer behaviour models that organise consumer behaviour into seven processes: attention, interest, search, comparison, consideration, action and information sharing [Suzuki et al., 2010]. There are three processes in tourism: 'Tabimae,' 'Tabinaka' and 'Tabiat.' As the name suggests, these are the names of the processes before, during and after tourism. In Tabimae, recognition and information dissemination are important, and search methods, word of mouth and SNS are factors. The "Tabinaka" refers to the behaviour of the tourists during the actual sightseeing, with experiences and discoveries made during the sightseeing trip, and the method of transportation and payment being factors. Tabiato" refers to what happens after tourism, such as word of mouth about the places visited and experiences, and repeat purchases of products. The most important part of the process of generating Emotional Attachment is "Tabinaka," where experiences and discoveries generate Emotional Attachment and lead to repeat purchases in "Tabiato." The AISCEAS model can be applied to the behaviour of tourists. Based on this model, the behaviour of a tourist is assumed to be from 'Attention' to 'Examination' in 'Tabimae' and 'Action' in 'Tabinaka,' which is the behaviour during sightseeing. Tabiat is the 'Share' stage. The AISCEAS model is illustrated below (Figure 7).

The AISCEAS model can be compared to tourism as above. In the 'Tabimae' stage, tourists search for and investigate tourist attractions, and consider whether or not to go there based on price, location and purpose. If they become attached to a place

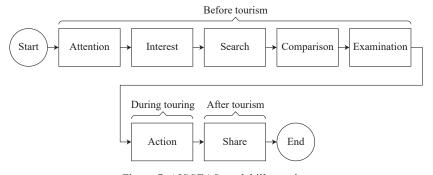


Figure 7: AISCEAS model illustration

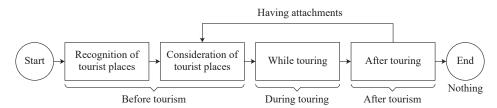


Figure 8: Model of behaviour with reference to AISCEAS model

during the 'Tabinaka' stage, when they are actually sightseeing, they will remember it with lingering memories during the 'Tabiato' stage. This is then utilised in the form of repeats in the 'Tabimae' stage when deciding on the next sightseeing destination. This flow is the basis for the behavioural model of this study, and the behavioural model with reference to the AISCEAS model is shown below (Figure 8).

As described above, when Emotional Attachment occurs during sightseeing, it remains in the memory after sightseeing and is considered to be a factor in making a decision on the next sightseeing destination and continues as feedback In the recognition and consideration stage, which is the 'Tabimae' stage, various items such as the purpose of sightseeing, price range and means of access, in addition to the name recognition of the sightseeing spot and word of mouth, are considered to be the decision-making factors when deciding on a sightseeing spot. During tourism, external factors such as the season and weather are also mentioned, in addition to experiences and relationships with people and the attractive resources of the tourist destination. After sightseeing, these become memories, and when Emotional Attachment is generated, it leads to repeat visits. The Emotional Attachment generating factors focused on in this study are symbolic and relationship-building factors, which can be combined in the model as follows.

The above diagram is the behavioural model of this study (Figure 9). The Emotional Attachment generating factors combined in this study are symbolic factors and relationship-building factors, with "brand image" as the item for the symbolic factor, based on name recognition and word of mouth, and "new discoveries and experiences" as the item for the relationshipbuilding factor, based on experiences and discoveries excluding external factors. The symbolic factors were based on the AISCEAS model. Symbolic factors are particularly involved in the stage of recognition and examination of tourist attractions from 'Search' to 'Examination' in the AISCEAS model, and are related to the name value of the Onsen resort itself, each tourist attraction and local characters in the examination stage of heading to the tourist attraction. In addition, the 'brand image' is actually felt during sightseeing, so it is thought to be involved in the stage during sightseeing as well. The relationshipbuilding factor is mainly involved during the sightseeing stage, and is thought to generate Emotional Attachment through

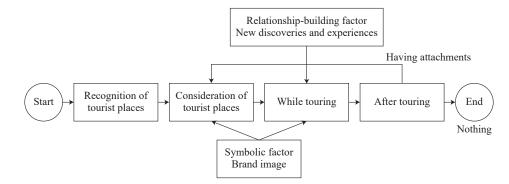


Figure 9: Tourist behaviour model

experiences during sightseeing. We propose that Emotional Attachment occurs when the two factors of the behavioural model are related.

This time, as an example of a Onsen tourist resort, we propose a method of Emotional Attachment formation using Shiobara Onsen in Nasushiobara City, which has a connection with our laboratory.

### 5. Proposal with emphasis on symbolic factor

5.1 About Shiobara Onsen

First, a proposal was made to attract more visitors to Shiobara Onsen in Nasushiobara City, Tochigi Prefecture. Shiobara Onsen, located in the northern part of Tochigi Prefecture, offers seasonal delicacies, seasonal nature and a variety of Onsens. In particular, Nasu Shiobara Onsen-kyo, a Onsen resort with 11 districts along the Broom River valley, has a history of more than 1,200 years, and hot water gushes out from approximately 150 sources. Furthermore, more than 80 % of the area is forested, and the Shiobara valley is coloured according to the changing of the seasons, attracting many tourists during the autumn leaf colouring season (Figure 10).



Figure 10: Shiobara Onsen Source: Shiobara Onsen Tourist Association [2024a].

### 5.2 Analysis of existing situation

Although Shiobara Onsen is attractive for its nature, food

and various Onsens, the number of overnight guests is currently on the decline. The annual number of overnight stays in Nasu Shiobara is shown below (Figure 11).

The data above shows the number of overnight visitors in Nasu Shiobara, which has been on a downward trend since 2010 and has remained almost unchanged from 2011 to 2019; in 2020 there is a sharp decline in the number of overnight visitors, which is thought to be largely due to COVID-19. Another possible cause, as discussed in the Introduction, is the decline in the number of Onsen stays. During the field survey, we actually walked around Shiobara Onsen and realised that the number of overnight stays has decreased.

### 5.3 Shiobara Onsen initiatives

In addition to its rich natural environment, Shiobara Onsen has many cultural and historical sites. The Shiobara Onsen Town Tour is organised by the Shiobara Onsen Town Tour Guides' Association to make the most of these features. In two hours, you can visit 16 spots, including beautiful valleys and literary monuments inscribed with poems and haiku by visiting literary figures [Shiobara Onsen Tourist Association, 2024b]. This event gives tourists new knowledge about the attractions and history of Shiobara by informing them about the Shiobara Onsen Town Guides' Association. It is also possible to encourage tourists to make new discoveries and experiences based on this knowledge, and is considered to be an initiative that can satisfy the relationship-building factor of the Emotional At-



Figure 12: Shiobara City tours Source: Shiobara Onsen Tourist Association [2024b].

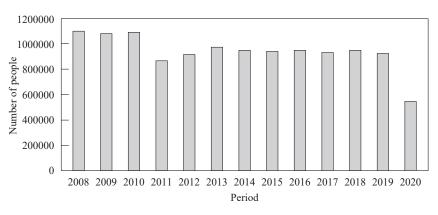


Figure 11: Nasushiobara Annual number of overnight stays Source: Open Data Nasu [2024].

tachment generation factor (Figure 12).

In addition, there is a character called 'Onsen musume' in Onsen resorts throughout Japan. This is a regional revitalisation project created by Embound Inc. to promote the attractiveness of Onsen resorts and regional cities throughout Japan both at home and abroad. The aim is to communicate the wide range of attractions of Onsen resorts and regions through characters based on the motifs of Onsen resorts throughout Japan, and to encourage people to visit these places [Onsen Musume Project, 2024]. The 'Onsen Musume' itself becomes the brand image of a new Onsen resort, which increases its name recognition and can be a factor in tourists' decision-making when choosing a tourist destination. This is thought to satisfy the symbolic factor of the Emotional Attachment generation factor (Figure 13).



Figure 13: Onsen Musume Source: Onsen Musume Project [2024].

There are also two "Onsen musume" in Nasu Shiobara, one in the Shiobara Onsen area and the other in Nasu Town. The "Onsen musume" in Nasushiobara City are listed below (Figure 14). projector." The aim of this is to hold a walking event mainly targeting "Shiobara Yaya" fans in the evening, when it is easy to drop in from popular sightseeing spots in Nasu, with the aim of attracting more visitors and restoring the vitality of the Nasu Shiobara Onsen resort area. In this event, participants visit designated spots with a hand-held lantern hologram projector. This makes it possible to superimpose past and present scenes, or scenes from different seasons, on the present scene, take photographs with the characters that appear, and receive voice guidance from the characters. An illustration of the proposal and its flow are shown below.

- · Hand-held lantern hologram projectors are available for hire
- Use the lanterns as lights as you head to each spot
- Project holograms, provide audio guidance and take photos at each spot.
- · Collect the hand-held lantern hologram projector

This proposal aims to create a brand image of the Shiobara Onsen resort and the "Onsen Musume" character, mainly by satisfying the symbolic factor and creating Emotional Attachment. It may also be possible to satisfy the relationship-building factor through new discoveries made by the character's explanations. The hologram in this proposal uses reflections on an acrylic plate to make moving images and images projected on a light source appear in mid-air. This enables users to superimpose characters and moving images on the actual scenery and to take photographs alongside the hologram. A conceptual diagram of hologram projection and a hologram projection pro-



Figure 15: Hologram projection conceptual diagram



Figure 16: Prototype



Figure 14: Onsen Musume in Nasu Shiobara Source: Onsen Musume Project [2024].

### 5.4 Proposal content

Based on previous analyses and surveys, this time we propose a "new town-walking event using a lantern-type hologram

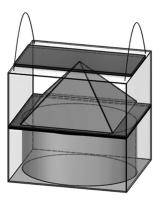


Figure 17: Prototype internal structure

totype are shown below (Figures 15-17).

In the prototype, two small clear boxes were stacked on top of each other, and the upper clear box was used as the hologram projection area, which was changed from the previous prototype so that the hologram could be projected on the inside instead of the outside. The hologram projection and the lighting of the lanterns are shown below (Figures 18-19).



Figure 18: Hologram projection



Figure 19: Paper lantern

As the hologram projection is entirely transparent, the structure was designed so that "Shiobara Yaya" can be projected onto the landscape even in the inner hologram projection. Using this prototype, a hands-on event was actually held. A questionnaire was then sent to the participants, asking them

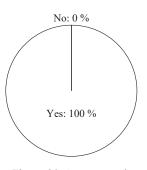


Figure 20: Survey result

whether they would repeat the event. The results are shown below (Figure 20).

Twenty-six people responded to the survey, which was completed during the hands-on event held on 2022 11 November. The number of valid responses was 26. The results of the questionnaire showed that all the respondents said that they would like to repeat the event, so it can be said that they were able to form an Emotional Attachment to the event. This means that most of the participants were originally fans of the "Onsen musume" of Shiobara Onsen, and can be described as so-called otaku. Otaku is a Japanese term defined as 'a person who spends almost all of his or her available money or time as a hobby or leisure in a field to which he or she is strongly devoted, and who possesses distinctive psychological characteristics' [Nikkei Business Publications, 2005]. In the study by Oyama et al. [2004] constructed the joy and sense of achievement of otaku is described as "when the next work or event is announced" and "when they are cheering on their guesses as they do their Oshi" [Oyama and Nagata, 2020]. An Oshi is someone you like so much that you would recommend them to others. By holding this hands-on event, it is thought that the participants gathered at the event and were delighted to see the 'Onsen Musume' explaining the event. Therefore, it is believed that all the participants answered that they wanted to repeat the event. In particular, this is thought to be because the brand image of Onsen Musume is involved and the symbolic factor of the Emotional Attachment generation factor is satisfied. Therefore, it was possible to generate Emotional Attachment from the symbolic factors as intended. However, the 'onsen musume' of Shiobara Onsen is popular and most of the participants were repeat visitors to Shiobara Onsen. Therefore, the study did not follow the objective of this study, which is to increase the number of new repeat customers. Therefore, it can be said that a questionnaire for new customers is necessary.

## 6. Proposals focused on Relationship-building Factor 6.1 Analysis of existing situation

The stage was set in the town of Nasu, as it was necessary to obtain data from new customers from the previous results. The stage was changed, and as the previous proposal was particularly filled with symbolic factors, a new Emotional Attachment formation method was proposed with an emphasis on relationship-building factors.Nasu Town is located next to Shiobara Onsen and, like Shiobara Onsen, the number of overnight guests is decreasing. Therefore, the proposed method is considered and proposed in the same way as for Shiobara Onsen.

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### 6.2 Proposal content

In the previous proposal, the brand image of the symbolic factor, which is the Emotional Attachment generating factor, was used as the 'Shiobara Yaya' of the 'Onsen Musume' of Shiobara Onsen, and the relationship building factor was attempted to be satisfied by encouraging new discoveries and experiences through the explanation of the tourist attractions of 'Shiobara Yaya.' In a study by Nakayama et al. [2010] constructed it was stated that the pre-study allowed for independent initiatives and could be seen as useful for the practical training.

For this reason, we proposed that the characters give knowledge to the tourists by explaining the background and knowledge of the place on the day before heading to the sightseeing spot in Nasu. By informing them of the knowledge of the sightseeing spot the day before, we aim to mainly fulfil the relationship-building factor by encouraging voluntary efforts and making new discoveries. As in the previous study, the brand images for the symbolic factors were "Nasu Ichiyou," the "Onsen musume" of Nasu Town, and "Kyubi," the ninetailed character who is Nasu's tourism ambassador [Nasu Tourism Association, 2024]. Due to time constraints, a promotional video was adopted this time as a medium for explaining the information in an intuitive and understandable way, rather than a hologram or similar. An example of a promotional video is shown below (Figure21).



Figure 21: Promotional video

As before, an experience event was organised, and a questionnaire was used to determine whether or not Emotional Attachment occurred. In the questionnaire, data was collected only from new customers, and in order to make a more detailed comparison, participants were asked to rate whether or not they would repeat the event on a five-point scale, and a comparison was made between participants who had seen the promotional video and those who had not. The results of the questionnaire

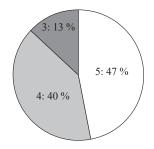


Figure 22: Survey result (PV watched)

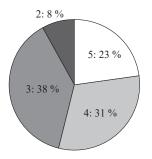


Figure 23: Survey result (Nothing PV)

are presented below (Figures 22-23).

15 participants had watched the video and 13 had not, all of whom had never been to Nasu. This is a questionnaire taken on 18 December 2023, with 15 valid responses from participants who watched the video and 13 valid responses from participants who did not watch the video. This survey was conducted on a five-point scale, with 5 being a positive rating. As a result, it can be said that participants who watched the videos beforehand and gained background and knowledge of each tourist destination were more likely to be repeat visitors and develop a sense of Emotional Attachment. Unlike the previous proposal in Shiobara, the results this time suggest to me that, because the participants were new tourists who were not otaku, the repeat rate increased as a result of new experiences and discoveries made by the participants through prior knowledge rather than brand images such as 'Onsen Musume' and 'Kyubi' as symbolic factor. It is considered that the repeat rate increased due to new experiences and discoveries by the participants as a result of prior knowledge. Therefore, it may have been possible to form an attachment that fulfilled the relationship-building factor. This is thought to be because the participants were not Onsen Musume fans, but new visitors who had never been to Nasu before, and the new experiences made a significant impression on them.

### 7. Conclusion

In this study, we focused on the symbolic and relationshipbuilding factors of Terauchi et al. [2004] constructed Emotional Attachment initiation factors, and proposed Emotional Attachment-forming factors that would increase the number of new repeat customers. A model of tourist behaviour was developed with reference to the AISCEAS model, and a method was proposed. In Shiobara Onsen, we proposed a city tour with a hologram using the 'Onsen Musume' and held an experience event after creating a prototype. The questionnaire results showed that the repeat rate was 100 %, but because the participants were repeaters, the stage was changed to Nasu Town and a new proposal was made to watch an explanatory video before heading to the sightseeing spots. The results of the questionnaire showed that 87 % of the participants who watched the video gave a rating of 5 or 4 on a 5-point scale, while 54 % of the participants who had not watched the video gave a rating of 5 or 4 on a 5-point scale. Therefore, it can be said that the participants who watched the video were more likely to become repeat viewers, and that we were able to propose an Emotional Attachment-building method that fulfilled the relationshipbuilding factor in particular. However, in the proposal made in Nasu Town, only the video was viewed due to time constraints, so it is necessary to use other means and consider the results from the questionnaire in the same way in order to find the most suitable proposal. In particular, SNS and other means of obtaining prior knowledge are mentioned. Most of the respondents answered the use of SNS as a specific activity for the interests that the otaku is most focused on [Hirose, 2024]. Therefore, we would like to make suggestions with a view to using SNS to gain prior knowledge.

### References

- Hirose, R. (2024). Wake-up call for the otakuisation of young people: Young people's ideas of 'otaku life' and the reality of the otaku community. Nissay Basic Research Institute (Retrieved March 7, 2024 from https://www.nli-research. co.jp/report/detail/id=65681?pno=2&site=nli). (in Japanese)
- Japan Onsens Research Institute (2024). Data on hot springs in Japan (Retrieved Febrary 27, 2024 from https://www.onsen-r.co.jp/data/facility/). (in Japanese)
- Jaran Research Centre (2012). Repeat customer tracking survey (Retrieved March 7, 2024 from https://jrc.jalan.net/surveys/ repeater/). (in Japanese)
- Nakayama, A., Itsumi, H., Ono, H., Kakeya, J., Takuno, H. (2010). Effectiveness of pre-study and on-campus exercises for adult nursing practice. *Niimi Public University Bulletin*, Vol 31, 139-144. (in Japanese)
- Nasu Tourism Association (2024). Nasu Town tourist (Retrieved Febrary 27, 2024 from https://www.nasukogen.org/kyubi/. (in Japanese)
- Nikkei Business Publications (2005). Use the power of otaku to your advantage. Nikkei Xtech (Retrieved March 7, 2005 from https://xtech.nikkei.com/dm/article/ NEWS/20051006/109426/). (in Japanese)
- Ohara, M. (2019). Relationship between repeat visit behaviour and tourist destination satisfaction by tourist travellers. *Regional Industry Review*, Vol. 11, 1-6. (in Japanese)
- Okano, Y., Kurata, Y., and Naoi, G. (2018). Experiences during the stay that influence emotional attachment to the tourist destination. *Institution of the Japan Society for Tourism Research*, Vol. 30, No. 1, 5-10. (in Japanese)

- Onsen Musume Project (2024). Introduction and character (Retrieved Febrary 27, 2024 from https://onsen-musume.jp/). (in Japanese)
- Open Data Nasu (2024). Number of tourist arrivals and overnight stays overview (Retrieved Febrary 27, 2024 from opendata-nasu.opendatastack.jp/dataset/kannkoukyakuirikomisuu-syukuhakusuu/resource/bc8ffaaa-a795-4cfc-a252-3fa8dc69b393). (in Japanese)
- Oyama, S. and Nagata, M. (2020). Young people's consumer behaviour and psychology as seen in 'wotakatsu'. Proceedigs of Japan Marketing Society, Vol. 9, 114-116. (in Japanese)
- Sato, Y., Otake, K., and Nabatame, T. (2017). Analysing the characteristics of repeat customers on e-commerce sites. *Information Processing Society of Japan*, 507-508. (in Japanese)
- Sato, Y. and Okamoto, N. (2011). Research on the behavioural characteristics and factors fostering repeaters in domestic travel. *Proceedings of the Civil Engineering Society D3* (*Civil Engineering Design*), Vol. 67, No. 5, 457-459. (in Japanese)
- Shiobara Onsen Tourist Association (2024a). Shioba love, Shiobara attractions (Retrieved Febrary 27, 2024 from https:// www.siobara.or.jp/attractions/). (in Japanese)
- Shiobara Onsen Tourist Association (2024b). Shioba Love (Retrieved Febrary 27, 2024 from https://www.siobara.or.jp/ machimeguri/h). (in Japanese)
- Shobunsha Publications (2024). About Nasu, Mapuru travel guide (Retrieved Febrary 27, 2024 from https://www.map-ple.net/tourism/nasu). (in Japanese)
- Suzuki, Y., Horikawa, M., Okamoto, A., and Sugawara, M. (2010). 50th Anniversary (72nd) National Convention of the Information Processing Society of Japan, 785-786. (in Japanese)
- Terauchi, F., Kubo, M., Aoki, H., and Hashimoto, H. (2004). A causal model for the development of emotional attachment:
  Towards a qualitative shift in the design of artefacts. *Journal of Design Studies*, Vol. 51, No. 6, 45-52. (in Japanese)
- Tomizawa, R. (2016). Proposal for an idea generation support system that takes into account emotional attachment, undergraduate thesis, department of machinery control system.
- Bachelor Thesis of Sibaura institute of Technology, 9-10. (in Japanese)

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